Clarivate™

CPI Manual Codes

Derwent World Patents Index | Edition 32

Clarivate™

Derwent World Patents Index (DWPI)

CPI Manual Codes

Edition 32

Edition 31 published January 2024
Edition 30 published January 2023
Edition 29 published January 2022
Edition 28 published January 2021
Edition 12 published January 2005

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means - electronic, mechanical, recording, photocopying or otherwise - without express written permission from the copyright owner.

Contents

INTRODUCTION 4

A: POLYMERS; PLASTICS 10

B: PHARMACEUTICALS 60

C: AGRICULTURAL CHEMICALS 131

D: FOOD, FERMENTATION, DISINFECTANTS, DETERGENTS 204

E: GENERAL CHEMICALS 231

F: TEXTILES, PAPER, CELLULOSE 272

G: PRINTING, COATING, PHOTOGRAPHIC 285

H: PETROLEUM 295

J: CHEMICAL ENGINEERING 307

K: NUCLEONICS, EXPLOSIVES, PROTECTION 320

L: GLASS, CERAMICS, ELECTRO(IN)ORGANICS 327

M: METALLURGY 355

N: CATALYSTS 372

APPENDIX 1 – NANOTECHNOLOGY 381

APPENDIX 2 - GREEN TECHNOLOGY 384

APPENDIX 3 – GENETIC ENGINEERING 389

APPENDIX 4: DIGITAL HEALTH 404

APPENDIX 5: ARTIFICIAL INTELLIGENCE (AI) 406

CPI INDEX 409

CPI Manual Codes

Introduction

Derwent Manual Codes have been developed over a period of more than 50 years, having been first introduced in 1963 when they were applied to patent references of the Farmdoc Service. Subsequently, this service has been renamed Section B and incorporated into the Chemical Patents Index (CPI).

As other areas of technology were introduced, new Manual Codes were developed. For example, codes for agricultural patents - Section C (1965), plastics and polymer patents - Section A (1966) and for the remaining sections of CPI in 1970.

Codes are applied to the inventive/significant features of the invention using the Documentation Abstract as the source document. The codes are assigned by teams of Clarivate analysts who have been specially trained in the application of these codes. The analysts have specialist knowledge in each of the areas of technology with which they are concerned.

About this user guide

This manual is divided into 3 sections. The first section is a list of manual codes in code order, with definitions, by section beginning with Section A and running through each of the Derwent CPI sections to M.

A	Polymers, Plastics	Plasdoc
B	Pharmaceuticals	Farmdoc
C	Agricultural Chemicals	Agdoc
D	Food, Fermentation, Disinfectants, Detergents	
E	General Chemicals	Chemdoc
F	Textiles, Paper, Cellulose	
G	Printing, Coating, Photographic	
H	Petroleum	
J	Chemical Engineering	
K	Nucleonics, Explosives, Protection	
L	Glass, Ceramics, Electro(In)organics	
M	Metallurgy	

The second section comprises 3 appendices which provide quick references for Nano-technology, Green technology and Genetic Engineering respectively.

Section 3 is a list of terms in alphabetical order together with the appropriate code(s).

To select codes, the alphabetical list should be consulted first. Once a code or group of codes has been identified, it is necessary to check the context of the code(s) and to take note of any special notes or conventions by looking in the code order list.

Manual codes are arranged in hierarchies with a broad or general code at the top of the hierarchy followed by sub-divisions of the code into more and more specific categories which may have been introduced over a period of time.

When selecting codes, it is necessary to take into account any broader codes which may have been in use in previous years. If the codes are to be used in online searches then truncation can be used to take the broader codes into account. The different levels in each hierarchy are indicated in this manual by an increasing number of dots e.g. ., ..

Some code definitions have an indication of a year, e.g. 1994, in the entry. This indicates the time at which the code was introduced. Those without a year indicated are valid from the beginning of the coverage for that section.

Scope notes are given for some codes and should be taken into account when selecting codes. Those notes which apply to a group of codes are given at the head of the group.

Format of the Codes

The format of the code is based firstly on the Section letter, e.g. A for Section A, B for Section B, etc., and then a series of alphanumerics as exemplified below:

A01

A01-A

A01-A00A

A01-A01

A01-A01A

A01-A01A1

The format for searching is exactly as the codes appear in this manual. Codes in Documentation Abstracts products appear in a slightly different format which is that without "leading zeros". For example, the code B06-D01 would appear as B6-D1.

Searching codes using the online hosts

Manual Codes can be searched in Derwent World Patents Index on Derwent Innovation, ProQuest Dialog and STN.

Various other search parameters can be combined with manual codes, e.g. International Patent Classifications (IPCs, taken from the front page of the patent specification), Cooperative Patent Classifications (CPCs, taken from the front page of the patent specification), Derwent Class and, of course, free text.

There are several advantages in using manual codes. The fact that they are applied by specialist teams of analysts at Clarivate means that the codes are applied in a consistent manner. Also, the need to search all possible synonyms and spellings of the topic of interest is avoided by the use of a coding system.

Online search example

Searching for dental equipment using the Derwent Class P32 would not cover only dentistry but also bandages, veterinary and prostheses such that many references retrieved searching on the Class will not be related to dentistry. However, the appropriate manual code D08-A04 (valid since 1986) will search on dental equipment only.

=> s p32/dc
L1 324760 P32/DC

=> d 1-3 ti

L1 ANSWER 1 OF 324760 WPIX COPYRIGHT 2017 CLARIVATE on STN
TI Incontinence disposable diaper comprises a main part that is provided with a suction body in a longitudinal direction and a transverse direction, and a front region is attached with front the lateral longitudinal edge

L1 ANSWER 2 OF 324760 WPIX COPYRIGHT 2017 CLARIVATE on STN
TI Dental medical instrument such as ultrasound calibrator, comprises thermochromic pigments which are arranged for visual display of temperatures on surface of dental medical instrument or dental medical device

L1 ANSWER 3 OF 324760 WPIX COPYRIGHT 2017 CLARIVATE on STN
TI Absorbent articles such as sanitary napkin, has bend line that is provided in low-fabric weight portion so that low-fabric weight portion protrudes to wearer side by contraction of elastic medium in unfolded state

Looking at the three titles above, only the second is relevant to dentistry equipment owing to the breadth of technologies covered by this class. It is also worth noting the extremely substantial number of records retrieved in the answer set. However, if we were to refine our search using the previously referenced manual code in conjunction with the P32 class:

=> s l1 and D08-A04/mc
D08-A04 DENTAL INSTRUMENTS, SALIVA PUMPS, SYRINGES
945 D08-A04/MC
L2 624 L1 AND D08-A04/MC

=> d 1-3 ti

L2 ANSWER 1 OF 624 WPIX COPYRIGHT 2017 CLARIVATE on STN
TI Dental fitting of dental assembly attachable to dental component such as dental implant, has attachment portion having projection extending in directions perpendicular to direction from attachment portion towards coronal end of main housing

L2 ANSWER 2 OF 624 WPIX COPYRIGHT 2017 CLARIVATE on STN
TI Oral care device for placement in oral cavity comprises flexible base substrate, flexible power source disposed on surface of base substrate, and electrode layer disposed on surface of flexible base substrate or flexible power source

L2 ANSWER 3 OF 624 WPIX COPYRIGHT 2017 CLARIVATE on STN
TI Probe for hand-held-type intraoral scanner for acquiring three-dimensional shape of tooth of patient, has lighting part arranged in housing, and main body for changing position of reflection part by pressing part of housing from outer side

Looking at the titles above, which are all relevant and falling within a more manageable results set, highlights the benefits of using CPI Manual Codes.

Section N - Catalyst Codes

In the various Manual Code products (online records, documentation abstracts), there will appear from time to time some N manual codes. These codes can be derived from any CPI Section (A through to M).

N manual codes have been applied to sections E, H and J from Derwent Week 197701.

From 197901, coverage was extended to Sections B, C, D, E and L.

N codes are not applied to Section A, F and G.

Section N is not a true Derwent Section but is in fact one of the CPI profiles (No. 21).

Chemical Codes (including Derwent Chemistry Resource and Derwent Markush Resource)

Chemical Fragmentation Codes, graphics indexing and Derwent Registry Numbers are applied to concepts in patents covered by Section B, C and E of CPI. They allow precise searches not only of specific compounds, but also for "Markush" structures which can represent literally millions of compounds.

These indexing methods provide the most comprehensive retrieval systems offered by Clarivate for searching patents, and they involve complete coverage of claims and examples. The use of Manual Codes in conjunction with these is useful in the following cases:

- Because of the high frequency of application of some Fragmentation Codes, the number of results is sometimes very high. The Manual Codes can be used in these cases to refine the search and separate out those of higher relevance (using AND).
- Improved precision is obtainable using a Manual Code where its definition of a concept is more precise than that of the Fragmentation Code.

Polymers and Plastics Codes/Polymer Indexing

The Polymer/Plastics Codes and Polymer Indexing system allow precise searches to be carried out, with high recall, of subject matter belonging to Section A of CPI. The codes represent repeating units of polymers, functional groups, elements, properties, forming processes, modification processes or products and uses of polymers.

The Polymer/Plastics Code has been considerably refined over the years and now Polymer Indexing (since the end of 1993) allows for more specific searching by using linking groups: each separate polymer concept and its associated terms being contained within a linking group.

As with Chemical Codes, the Polymer/Plastics Codes and Polymer Indexing may be used in conjunction with Manual Codes to give a higher relevance and precision to your answer sets.

Products featuring Manual Codes

Documentation Abstracts

Each Documentation Abstract carries all the Manual Codes assigned in a box at the top right-hand half of the abstract. The codes for each section are grouped together in parentheses with the initial letter removed and placed at the front outside the parentheses.

For example:

B(4-C02E3, 12-M01D)

represents

B04-C02E3 and B12-M01D

(As explained under the heading Format, codes in the printed products are abbreviated by omitting zeros.)
In the case of abstracts assigned to both Sections B and C, the codes are combined as follows:

BC(4-C3, 12-M10B, 12-M11D)

represents

B04-C03, B12-M10B, B12-M11D, and

C04-C03, C12-M10B, C12-M11D

Images of Documentation Abstracts

This product provides images of the Documentation Abstracts, supplied via Derwent Innovation, the DAJ Web platform, and via FTP for use via Derpict software.

Manual codes may also be searched, depending on subscription levels, in ***Derwent Innovation***, ***Derwent Innovations Index*** and ***Cortellis***.

A:
POLYMERS; PLASTICS

A01 Monomers, Condensants
A02 Polymerisation Controllers
A03 Natural Polymers
A04 Addition Polymers
A05 Condensation Polymers
A06 Inorganic Polymers
A07 Polymer Blends, Aqueous Dispersions
A08 Additives
A09 Properties, Analysis, Testing, Control
A10 Polymerisation, Polymer Modification
A11 Processing Polymers including Equipment
A12 Polymer Applications

A: POLYMERS; PLASTICS

Code commenced 1966 (Accession Number 60,001P)

Main Headings

A01: Monomers, condensants

A02: Polymerisation controllers

A03: Natural polymers

A04: Addition polymers

A05: Condensation polymers

A06: Inorganic polymers

A07: Polymer blends; aqueous dispersions

A08: Additives

A09: Properties, analysis, testing, control

A10: Polymerisation; polymer modification

A11: Processing polymers including equipment

A12: Polymer applications

Scope

All polymers and their related concepts are retrievable using one or more of the above sections. The code is hierarchical in structure so that both generic and specific searching can be carried out.

The polymer-related subject matter only is retrievable using the manual codes. For e.g. a reference to extrusion of aluminium tubes using a polymeric lubricant, the codes for extrusion and the tubes are not assigned. The use of polymer (as lubricants and in metallurgy) is searchable.

Indexing approach

The coding is based on the Derwent documentation abstract (the specification only being consulted when the information to hand is too vague or is ambiguous). One or more codes are applied to cover only the main inventive features of the invention. There is no set upper limit to the number of codes assigned.

Coding rules

The coding is carried out generally according to the following rules:-

1. For a novel polymer composition, which can be used in a wide range of applications, only the composition is coded.
2. For a novel polymerisation catalyst, the corresponding polymerisation process is not coded. However the products, i.e. the polymers produced, are coded.
3. Where a particular process, additive or catalyst is disclosed for specific polymer(s), then both the feature and the polymer(s) are coded e.g. in a reference heat stabiliser for PVC, both concepts are coded.
4. Where a novel additive can be used for a range of alternative polymers e.g. an azo dye for cellulose acetate, polyamide and polyester etc.; then the novel additive (e g. dye) only is coded.
5. For a polymeric additive or catalyst/controller, the polymer blend code is not applied. The additive should be searched in the polymer section and in the appropriate additive sections. However, the catalyst/controller can be searched in the appropriate catalyst section, polymer section and as A12-W11K.
6. Properties of polymers are only coded if they are of exceptional importance. As examples, properties are coded for high impact polymers or polymers of improved dyeability.
7. References to modified polymers are only coded in A10-E: section. The polymer from A03: to A06: sections is only coded if the process of modification is described.
8. Where a large number of specific concepts belonging to a section are described, then the generic code only of that section is applied e.g. if polyethylene, polypropylene, polybutene-1 and EPDM are codable in an abstract then only A04-G01+ is applied. Therefore, for complete retrieval of a specific concept, both the specific and the generic code should be searched.
9. Prepolymers or intermediates for polymers are conventionally coded as polymers e.g. ethylene glycol terephthalate (A05-E04+), bisphenol A diglycidyl ether (A05-A02), polyurethane prepolymers (A05-G+), polyamic acids (A05-J01+).

Online retrieval

Since the codes are assigned only to the main inventive features, a search will result in hits of high relevance. For complete recall, fragmentation code searching is recommended.

The manual codes can then be used to (i) limit the hits to those of high relevance or (ii) to divide the hits from a fragmentation code search into those of high and those of low relevance, when the number of hits obtained is unacceptably large.

Because a generic code only of a section is applied for a large number of specific concept(s) belonging to that section, the ORing of the generic and the specific code(s) is recommended for complete retrieval.

Time ranging

The code has been improved by addition of manual codes during pre-CPI year range (from the Accession Number range 80,000P), and at the beginning of the Accession years 1970, 1977, 1986 and 1994.

Where the coding for a concept had undergone alterations, then for precise retrieval, use may be made of the searchable field Accession Year (or Entry Year) (see Derwent World Patents Index user guides) to restrict the use of the appropriate code to the time period during which it is valid.

A01 MONOMERS, CONDENSANTS

Coverage

These are also classified in Section E.

All patents relating to the production and purification of the following: acrolein, acrylic acid, acrylonitrile, adipic acid, bisphenol A, butadiene, caprolactam, chloroprene, diethyl or dimethyl terephthalate, ethyl acrylate, ethylene, ethyl methacrylate, formaldehyde, hexamethylene diamine, isobutene, isoprene, maleic anhydride, melamine, methacrylic acid, methyl (meth)acrylate, methyl styrene, 2,6-naphthalene dicarboxylic acid, phenol, phthalic anhydride, propylene, sebacic acid, styrene, terephthalic acid, tetrafluoroethylene, urea, vinyl acetate, vinyl chloride and vinylidene chloride.

All patents relating to the production and purification of new monomers shown clearly to be usefully polymerisable. Purification, stabilisation or new route of production only of all other known usefully polymerisable monomers. Starting materials for monomers are not coded. Also the catalysts and the processes for the production of monomers are not coded.

For polymerisation of a monomer, search the product i.e. polymer only along with polymerisation process (A10: section) if desired.

A01-A	**COMPOUNDS CONTAINING THE ELEMENTS OR GROUPS BELOW** Including all compounds not covered by A01-B: to A01-E:, but excluding metal salts. Including their production, handling, storage and purification.
A01-A00A	**General heteroatom containing** Indexed where the polymer former would require three or more codes from the A01-A+ hierarchy. **1994**
A01-A01	**Boron containing compounds** e.g. borazoles, carboranes
A01-A02	**Phosphorus containing compounds** e.g. phosphonitrilic halides
A01-A03	**Silicon containing compounds** e.g. silanes, cyclic siloxanes
A01-A04	**Metal containing compounds** Including those having a metal-carbon bond e.g. tributyl tin methacrylate (with A01-D08); vinyl ferrocene (with A01-D)

A01-A05 **Nitroso group containing compounds**
e.g. trifluoro-nitrosomethane

A01-A **Others**
e.g. sulphur dioxide

A01-B **COMPOUNDS CONTAINING POLYMERISABLE C-C BONDS**
Excluding A01-C:, A01-D:.
Including their production, handling, storage and purification.

A01-B00B **General C-C bond**
Indexed where the polymer former would require three or more codes from the A01-B+ hierarchy.
1994

A01-B01 **Compounds containing both C-C double and C-C triple bonds**
e.g. vinyl acetylene, dimethyl vinyl ethynyl carbinol.

A01-B02 **Compounds containing C-C triple bond(s) only**
e.g. acetylene, propargyl alcohol.

A01-B03 **Compounds containing more than two C-C double bonds**
e.g. trimethylolpropane triacrylate, diallyl maleate, pentaerythritol tetraacrylate.

A01-B04 **Petroleum chemicals, general**
e.g. products resulting from refinery cracking processes.

A01-B **Others**

A01-C **DIOLEFINIC MONOMERS**
Including their production, handling, storage and purification.

A01-C00C **General diolefinic**
Indexed where the polymer former would require three or more codes from the A01-C+ hierarchy.
1994

A01-C01 **Aromatic or (cyclo)aliphatic esters**
e.g. diallyl phthalates

A01-C02 **Other aromatic compounds substituted by heteroatoms/groups**
Excluding A01-C01; e.g. bisphenol A diallylether.

A01-C03 **Other aromatic compounds optionally substituted by hydrocarbyl groups only**
e.g. divinylbenzene, divinyl toluene.

A01-C04 **(Cyclo)aliphatic compounds substituted by heteroatoms/groups**
Excluding A01-C01; e.g. chloroprene.

A01-C05 **(Cyclo)aliphatic hydrocarbons optionally substituted by hydrocarbyl groups only**
Excluding A01-B04; e.g. butadiene, isoprene, allene, dicyclopentadiene, piperylene.

A01-C06 **Bismaleimides**
1994

A01-C **Others**

A01-D **MONOOLEFINIC MONOMERS**
Including their production, handling, storage and purification

A01-D00D **General monoolefinic**
Indexed where the polymer former would require three or more codes from the A01-D+ hierarchy.
1994

A01-D01 **Heterocyclics containing nuclear N**
e.g. vinyl pyridine, vinyl carbazoles, maleimide.

A01-D02 **Aromatics substituted by hetero atoms/groups**
e.g. cinnamic acid, coumarone, vinyl benzene sulphonic acid, chloromethyl styrene, vinyl benzoate.

A01-D03 **Other aromatics optionally substituted by hydrocarbyl groups only**
e.g. styrene, alpha-methyl styrene, vinyl toluene, indene.

A01-D04 **(Cyclo)aliphatic nitriles**
e.g. acrylonitrile; cyanoacrylic acid (with A01-D08); cyanoacrylates (with A01-D10); vinylidene cyanide.

A01-D05 **(Cyclo)aliphatic aldehydes or ketones**
e.g. acrolein; diacetone acrylamide (with A01-D06).

A01-D06 **(Cyclo)aliphatic amides**
e.g. acrylamide; diacetone acrylamide (with A01-D05).

A01-D07 **N-contg. generics and others**
Excluding A01-D01, A01-D04, A01-D06; e.g. aminoalkyl acrylates (with A01-D10).

A01-D08 **(Cyclo)aliphatic carboxylic acids, anhydrides or salts**
e.g. acrylic acid; maleic anhydride (with A01-E12); cyanoacrylic acid (with A01-D04); including acrylic anhydrides..

A01-D09 **(Cyclo)aliphatic alcohols**
e.g. allyl alcohol.

A01-D10 **(Cyclo)aliphatic carboxylic esters, general**
e.g. methyl methacrylate; vinyl acetate; dibutyl maleate (with A01-E12); aminoalkyl acrylates (with A01-D07); cyanoacrylates (with A01-D04).

A01-D10A . **Vinyl esters**
e.g. vinyl acetate.
2002

A01-D10B . **(Meth)acrylic esters**
e.g. methyl (meth)acrylate.
2002

A01-D11 **(Cyclo)aliphatic ethers**
Excluding vinyl thioethers for which see A01-D; e.g. methyl vinyl ether.

A01-D12 **(Cyclo)aliphatic halides**
Including acid halides; e.g. vinyl(idene) chloride; tetrafluoroethylene; fluoroacrylates (with A01-D10).

A01-D13 **(Cyclo)aliphatic hydrocarbons**
Excluding A01-B04; e.g. olefins such as ethylene, propylene, diisobutylene; norbornene.

A01-D **Others**
e.g. vinyl silanes (with A01-A03); vinyl phosphonic acid (with A01-A02); allyl sulphonic acid; vinyl ferrocene (with A01-A04); vinyl thioethers.

A01-E **CONDENSANTS**
Including their production, handling, storage and purification

A01-E00E **General condensants**
Indexed where the polymer former would require three or more codes from the A01-E+ hierarchy.
1994

A01-E01 **Triazines**
e.g. melamine, guanamine.

A01-E02 **Iso(thio)cyanates**
e.g. toluene diisocyanate, isophorone diisocyanate. For blocking agents see A02-C.

A01-E03 **Amides**
Including urea. For lactams see A01-E04.

A01-E04 **Lactams; amino acids**
e.g. caprolactam, aminocaproic acid, glutamic acid.

A01-E05 **Amines**
Excluding A01-E01; e.g. aniline, hexamethylene diamine, hexamethylene tetramine, piperidine, ethyleneimine. Used for nitriles together with A01-E11 or A01-E12 as appropriate e.g. for adiponitrile search A01-E05 and A01-E12.

A01-E06 **Other N-containing**
Excluding A01-E01 to A01-E05; e.g. oxazoli(di)nes, oxazines, benzimidazoles.

A01-E07 **Mono-epoxy compounds**
e.g. epihalohydrin; ethylene oxide; monoglycidyl ether/ester; glycidol (with A01-E14); and thiiranes (episulphides).

A01-E08 **Cyclic (thio)ethers**
Excluding A01-E07; e.g. tetrahydrofuran (THF), oxetanes.

A01-E09 **Formaldehyde**
Including trioxane, tetraoxane.

A01-E10 **Aldehydes, ketones**
Excluding A01-E09, e.g. acetaldehyde, furfural, acetone, ketenes.

A01-E11 **Aromatic carboxylic acids, acid halides, anhydrides or esters**
e.g. phthalic (iso-, ortho- and tere-), trimellitic, pyromellitic.

A01-E12 **(Cyclo)aliphatic carboxylic acids, acid halides, anhydrides or esters**
e.g. adipoyl chloride; sebacic acid; maleic anhydride (with A01-D08); bishaloformates.

A01-E13 **Phenols**
Including monohydric and polyhydric e.g. phenol, cresols, resorcinol, bisphenol A.

A01-E14 **Alcohols**
Including dihydric and polyhydric e.g. ethylene glycol, pentaerythritol, cyclohexane dimethanol.

A01-E **Others**
e.g. heterocyclic acids; for lactones see A01-E14 and A01-E11 or A01-E12 as appropriate. Similarly for other condensants containing functionally dissimilar groups e.g. diethanolamine see A01-E05 and A01-E14.

A01-F	**INTERMEDIATES WHERE THE FINAL MONOMER IS UNKNOWN** **1994**
A01-F	**Intermediates where the final monomer is unknown** **1994**

A02 POLYMERISATION CONTROLLERS

The use of this section is restricted to polymerisation only. Catalysts used for crosslinking, although often referred to as polymerisation catalysts, are coded as accelerators as appropriate (see A08-C: or A08-D: section). For catalyst recovery/removal from polymer, and for catalyst destruction see A10-G+. Catalysts for processes other than polymerisation, such as production of monomer, condensant or additive, for crosslinking or for polymer modification, are not coded.

A02-A	**CATALYSTS AND ACTIVATORS** Excluding catalysts and activators for any purpose other than polymerisation, e.g. production of monomers, condensants or additives, for crosslinking or for polymer modification.
A02-A00A	**General catalyst** Indexed where three or more codes would be required from the A02-A+ hierarchy. Also indexed for unspecified catalysts. **1994**
A02-A01	**Peroxides, persalts** e.g. potassium persulphate, hydrogen peroxide etc.; including hydroperoxides, oxygen; excluding Redox (see A02-A03).
A02-A02	**Azo compounds** e.g. azobisisobutyronitrile; including hyponitrites.
A02-A03	**Free radical, general and others** Excluding A02-A01, A02-A02. Including components of Redox catalysts e.g. ammonium persulphate and ferrous sulphate; ceric ammonium nitrate.
A02-A04	**Friedel Crafts** Including Lewis acids, e.g. BF3 (etherate), AlCl3, SnCl4, TiCl4 (used without an activator), FeCl3, H2SO4, HF, H3PO4.
A02-A05	**Alfin** e.g. mixture of allyl sodium, sodium isopropoxide and sodium chloride.

A02-A06 **Transition metal (or compound)**
Excluding A02-A06A to A02-A06D. All transition metal (or compound) containing compositions are searchable in A02-A06 or subdivisions thereof; if the composition further contains a novel non- transition metal (compound) component, see also A02-A07A or A02-A10. Transition metal compounds in free radical or Friedel-Crafts systems are searchable in this section (search A02-A01 to A02-A05 appropriately). Transition metals are: Ag, Au, Co, Cr, Cu, Fe, Hf, Ir, Mn, Mo, Nb, Ni, Os, Pd, Pt, Re, Rh, Ru, Sc, Ta, Tc, Ti, V, W, Y, Zr and the actinides and lanthanides.

A02-A06A **. Oxides**
e.g. CrO3. Prior to 1970 see A02-A06.
1970

A02-A06B **. (Oxy)halides**
With no other substitution(s). e.g. TiCl3, VOCl3. Prior to 1970 see A02-A06.
1970

A02-A06C **. Also containing organo-aluminium compounds**
Excluding A02-A06A, A02-A06B; e.g. Ti(OiBu)4 with Et3Al. Prior to 1977 see A02-A06, A02-A06A and A02-A06B.
1977

A02-A06D **. Containing Cr, Hf, Mn, Mo, Nb, Ta, Ti, V, W or Zr only**
Excluding A02-A06A to A02-A06C; e.g. Ti(OiBu)4. Prior to 1977 see A02-A06, A02-A06A and A02-A06B.
1977

A02-A06E **. Metallocenes, general**
Excludes A02-A06D. See also A02-A06C.
1994
Previous code(s): A02-A06+

A02-A06E1 **.. Containing Ti, Zr or Hf**
Excluding A02-A06D. See also A02-A06C.
1994
Previous code(s): A02-A06+

A02-A06E2 **.. Containing other transition metal**
Excludes A02-A06D. See also A02-A06C.
1994
Previous code(s): A02-A06+

A02-A07 **Non-transition metal (compounds)**
Excluding A02-A01 to A02-A05; including Boron, Si.

A02-A07A **. With transition metal (compound)**
Only when novelty. Prior to 1970 see A02-A07.
1970

A02-A07B **. Alkali(ne earth) metal containing organic compounds**
Including salts and complexes e.g. sodium lactamate, butyl lithium; excluding A02-A07A. Prior to 1977 see A02-A07.
1977

A02-A07C **. Organoaluminium compounds**
Excluding when in presence of a transition metal (compound). Prior to 1977 see A02-A07.
1977

A02-A08 **Stereospecific**
Excluding A02-A06+.

A02-A09 **Photocatalyst**

A02-A10 **Non-metallic activators for transition metal type catalysts**
Only when novelty; e.g. amines, esters, P compounds. Prior to 1970 see A02-A06.
1970

A02-A11 **Phosphorus containing**
Excluding A02-A01 to A02-A10. Prior to 1977 see A02-A.
1977

A02-A12 **Biocatalyst eg enzymes**
2002

A02-A **Others**
e.g. t-amines.

A02-B **CHAIN TRANSFER AGENTS, REGULATORS, MODIFIERS, TELOGENS, CHAIN COUPLERS**

A02-B **Chain transfer agents, regulators, modifiers, telogens, chain couplers**
e.g. H2 in olefin polymerisation, SiCl4, oxazolines.

A02-C **POLYMERISATION INHIBITORS AND CHAIN STOPPERS, BLOCKING AGENTS FOR MONOMERS OR CONDENSANTS**

A02-C **Polymerisation inhibitors and chain stoppers, blocking agents for monomers or condensants**
e.g. hydroquinone, phenol; including catalyst deactivators.

A02-D	**OTHER CONTROL MATERIALS**
A02-D01	**Buffers**
A02-D	**Catalyst support and others** e.g. SiO2, Al2O3; as catalyst supports, seeding agents.

A03 NATURAL POLYMERS

Starting natural polymers for the production of cellulose esters and ethers are not coded, see also A10-E: section for the appropriate process involved. This section does not cover wood or the use of cellulose paper making fibres such as wood pulp.

A03-A	**POLYSACCHARIDES** For chitosan see A10-E09.
A03-A	**Polysaccharides** Non-cellulosic e.g. starch, dextran, chitin.
A03-A00A	**. Uses** Prior to 1986 see A03-A. **1986**
A03-A01	**General**
A03-A01A	**. Textiles, fibres** Prior to 1970 see A03-A01. **1970**
A03-A02	**Cellulose acetate**
A03-A02A	**. Textiles, fibres** Prior to 1970 see A03-A02. **1970**
A03-A03	**Other cellulose esters** e.g. cellulose nitrate (nitrocellulose), cellulose acetate butyrate.
A03-A04	**Cellulose ethers** e.g. carboxymethyl cellulose, hydroxyethyl cellulose.
A03-A04A	**. Uses** Prior to 1970 see A03-A04. **1970**
A03-A04A1	**.. Medical, dental, cosmetic, veterinary; food** Prior to 1986 see A03-A04A. **1986**
A03-A04B	**. Preparation of cellulose ethers** **2002**
A03-A05	**Cellulose derivatives and others** Including regenerated cellulose e.g. rayon.
A03-A05A	**. Textiles, fibres** Prior to 1970 see A03-A05. **1970**
A03-B	**NATURAL RUBBERS**
A03-B	**Natural rubbers** including isomers such as balata, gutta percha.
A03-C	**OTHER NATURAL POLYMERS**
A03-C01	**Proteinaceous polymers** e.g. gelatin, casein, collagen.

A03-C02 **Natural resins or gums, rosin (abietic acid), lignin**

A03-C03 **Bituminous plastics**
e.g. asphalt, lignite. Prior to 1977 see A03-C.
1977

A03-C04 **Petroleum resins**
i.e. low polymers prepared synthetically from mixed unsaturates, typically found in refinery streams - aliphatic olefins, acyclic, cyclic and bicyclic dienes; styrenes and indenes. Prior to 1977 see A03-C.
1977

A03-C **Others**
e.g. terpene resins, polymerised drying oils, frankincense resin, myrrh resin.

A04 ADDITION POLYMERS

Polymers of the metal salts of olefinically unsaturated acids are coded according to the valency of the metal e.g. see A04-F04+ for sodium acrylate polymer and A04-B for calcium acrylate polymer. A reference to acrylic resin/polymer with no further details is coded A04-F01+. For acrylic fibres see A04-D02+ or A04-D03+ and A12-S05+. For acrylic sheets see A04-F01+, A04-F06+ and A12-S07+. For acrylic paints and coatings see A04-F01A1 and A12-B01+. A polymer belonging to a particular class in section A04: and also falling within the definition of the code A04-A, is assigned both codes e.g. a monoolefinic acrylate (co)polymer containing sulphur in the repeat unit is assigned appropriate codes A04-F06+ and A04-A.

A04-A **MISCELLANEOUS (CO)POLYMERS**
Excluding A04-B: to A04-G:.

A04-A01 **Monomers containing both double and triple C-C bonds**
e.g. vinyl acetylene.

A04-A02 **Monomers containing triple C-C bonds only**
e.g. acetylene, propargyl alcohol.

A04-A03 **Monomers containing more than two double C-C bonds**
e.g. trimethylolpropane triacrylate, diallyl maleate, pentaerythritol tetraacrylate, polyallyl sucrose (for Carbopols® with A04-F04+).

A04-A04 **Monomers containing a nitroso gp.**
e.g. trifluoronitrosomethane.

A04-A05 **Carbon monoxide copolymers**
1994
Previous code(s): A04-A

A04-A06 **Monomers containing sulfur group**
e.g. acrylamide methylpropanesulfonic acid (with A04-D04+), styrene sulfonate (with A04-C).
2024
Previous code(s): A04-A

A04-A07 **Monomers containing silicon group**
e.g. vinyltriethoxysilane (with A04-F).
2024
Previous code(s): A04-A

A04-A **Others**
Others e.g. unsaturated monomers containing elements other than C, H, O, N and halogen (excluding metal salts of unsaturated carboxylic acids (e.g. sodium acrylate) for which see the corresponding acid).

A04-B **POLYMERS FROM DIOLEFINIC MONOMERS**

A04-B01 **General**
Applied from the start of Plasdoc to the end of 1985 and was then discontinued.
1966-1985

A04-B01A . **Production**
Prior to 1970 see A04-B01.
1970

A04-B01B . **Compositions**
Prior to 1986 see A04-B01.
1986

A04-B01C . **Fabrication**
Prior to 1986 see A04-B01.
1986

A04-B01D . **Treatment**
Prior to 1986 see A04-B01.
1986

A04-B01E . **Uses**
Prior to 1986 see A04-B01.
1986

A04-B02 **Butadiene homopolymer**
Including butadiene rubber.

A04-B02A . **Production**
Prior to 1970 see A04-B02.
1970

A04-B03 **Butadiene with styrene**
Including SBR.

A04-B03A . **Production**
Prior to 1970 see A04-B03.
1970

A04-B04 **Butadiene with acrylonitrile**
Including NBR.

A04-B05 **Butadiene with other monomers**
Excluding with styrene for which see A04-B03+; with acrylonitrile for which search A04-B04 and ABS for which search A04-C03.

A04-B06 **Isoprene homopolymer**

A04-B07 **Isoprene copolymers**
Excluding butyl rubber for which see A04-G05A.

A04-B08 **Chloroprene (co)polymers**
e.g. neoprene; including other haloprenes.

A04-B09 **Esters containing 2 non-conjugated C-C double bonds**
e.g. diallyl phthalates, allyl (meth)acrylate, ethylene glycol bis (allyl carbonate).

A04-B10 **Aromatic diolefinic**
Excluding A04-B09; e.g. divinyl benzene.

A04-B11 **Bismaleimide (co)polymers.**
1994
Previous code(s): A04-B

A04-B12 **Diallyl dimethylammonium chloride (co)polymers**
(Co)polymers formed from diallyl dimethylammonium chloride; e.g. Polydiallyl dimethylammonium chloride, PDADMAC (co)polymers.
2021

A04-B **Others**
e.g. dicyclo-pentadiene, piperylene.

A04-C **POLYMERS FROM (SUBSTITUTED) AROMATIC MONOOLEFINIC MONOMERS**

A04-C01 **General**

A04-C01A . **Production, compositions**
Prior to 1986 see A04-C01.
1986

A04-C02 **Styrene homopolymer**
For expanded polystyrene see A12-S01+ only. Applied during the pre-70 (pre-CPI) accession number range 60,001P - 79,999P and was then discontinued.
1966-1967

A04-C02A . **Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-C02.
pre-1970

A04-C02B . **Compositions**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-C02.
pre-1970

A04-C02B1 .. **High impact polystyrene**
1994
Previous code(s): A04-C02+

A04-C02C . **Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-C02.
pre-1970

A04-C02D . **Treatment**
Applied during the accession number range 80,000P (Pre-CPI) to date. Prior to 80,000P see A04-C02.
pre-1970

A04-C02E . **Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-C02.
pre-1970

A04-C03 **Styrene with acrylonitrile and butadiene**
i.e. ABS.

A04-C04 **Styrene with other monomers**
Excluding with butadiene for which see A04-B03+; for ABS see A04-C03.

A04-C04A . **Production, compositions**
Prior to 1970 see A04-C04.
1970

A04-C04B . **Styrene with acrylonitrile**
SAN.
1994
Previous code(s): A04-C04+, A04-D04+

A04-C05 **Alkyl substituted styrenes (co)polymers**
Hydrocarbon only e.g. vinyl toluene, alpha-methyl styrene. Prior to 1986 see A04-C.
1986

A04-C **Others**
e.g. vinyl naphthalene, indene, coumarone, styrene sulphonic acid (with A04-A06), vinyl phenol, chloromethyl styrene, cinnamic acid.

A04-D **POLYMERS FROM SUBSTITUTED MONOOLEFINIC MONOMERS CONTAINING N**

A04-D01 **General**

A04-D02 **(Meth)acrylonitrile homopolymers**

A04-D02A . **Production, compositions**
Prior to 1970 see A04-D02.
1970

A04-D02B . **Fibres, textiles**
Prior to 1970 see A04-D02.
1970

A04-D03 **(Meth)acrylonitrile copolymers**
Excluding ABS for which see A04-C03 and acrylonitrile with butadiene for which see A04-B04.

A04-D03A . **Production, compositions**
Prior to 1970 see A04-D03.
1970

A04-D03B . **Fibres, textiles**
Prior to 1970 see A04-D03.
1970

A04-D04 **(Meth)acrylamide (co)polymers (optionally substituted)**

A04-D04A . **Uses**
Prior to 1970 see A04-D04.
1970

A04-D04A1 .. **Adhesives and binders; coatings; (electro)photographic, laboratory, optical**
Prior to 1986 see A04-D04A.
1986

A04-D04A2 .. **Mining, chemical engineering**
Prior to 1986 see A04-D04A.
1986

A04-D05 **Vinyl lactams (co)polymers**

A04-D05A . **Vinyl pyrrolidones (co)polymers**
1994
Previous code(s): A04-D05

A04-D06 **Vinyl carbazoles (co)polymers**

A04-D07 **Vinyl pyridines (co)polymers**

A04-D08 **Other vinyl heterocyclics (co)polymers; (substituted) maleimides**
Excluding A04-D05, A04-D06, A04-D07. Prior to 1977 see A04-D.
1977

A04-D09 **Other amines (co)polymers**
Excluding A04-D02 to A04-D08; including (quaternary ammonium) salts thereof, e.g. aminoalkyl (meth) acrylates, non-vinyl heterocyclic amines. Prior to 1977 see A04-D.
1977

A04-D **Others**
e.g. vinylidene cyanide, cyanoacrylates.

A04-E **POLYMERS FROM NITROGEN-FREE, HALOGEN-SUBSTITUTED ALIPHATIC MONOOLEFINIC MONOMERS**

A04-E01 **General**

A04-E02 **Vinyl chloride homopolymer**
Applied during the pre-70 (pre-CPI) accession number range 60,0001P - 79,999P and was then discontinued.
1966-1967

A04-E02A **. Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-E02.
pre-1970

A04-E02B **. Compounding**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-E02.
pre-1970

A04-E02C **. Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-E02.
pre-1970

A04-E02D **. Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-E02.
pre-1970

A04-E02E **. Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-E02.
pre-1970

A04-E02E1 **.. Chemical, electrical and mechanical engineering; building, civil engineering**
Prior to 1970 see A04-E02E.
1970

A04-E02E2 **.. Adhesives and binders; coatings**
Prior to 1970 see A04-E02E.
1970

A04-E03 **Vinyl chloride copolymers**
Applied from the start of Plasdoc to the end of 1985 and was then discontinued.
1966-1967

A04-E03A **. Production**
Prior to 1970 see A04-E03.
1970

A04-E03B **. Compositions**
Prior to 1986 see A04-E03.
1986

A04-E03C **. Fabrication**
Prior to 1986 see A04-E03.
1986

A04-E03D **. Treatment**
Prior to 1986 see A04-E03.
1986

A04-E03E **. Uses**
Prior to 1986 see A04-E03.
1986

A04-E04 **Vinyl bromide, iodide homopolymers**

A04-E05 **Vinyl bromide, iodide copolymers**

A04-E06 **Vinylidene halide homopolymers**
Excluding fluoride for which see A04-E10B.

A04-E07 **Vinylidene halide copolymers**
Excluding fluoride for which see A04-E10B.

A04-E08 **Tetrafluoroethylene homopolymer (PTFE)**

A04-E08A **. Production, compositions**
Prior to 1970 see A04-E08.
1970

A04-E08B **. Mechanical engineering uses**
Prior to 1970 see A04-E08.
1970

A04-E09 **Tetrafluoroethylene copolymers**

A04-E10 **Fluorine containing other or general**

A04-E10A **. Vinyl fluoride (co)polymers**
Prior to 1986 see A04-E10.
1986

A04-E10B **. Vinylidene fluoride (co)polymers**
Prior to 1986 see A04-E10.
1986

A04-E10C **. F-containing ether (co)polymers**
Prior to 1986 see A04-E10.
1986

A04-E10D **. Other specific F-containing (co)polymers**
e.g. hexafluoropropylene, chlorotrifluoroethylene, fluoro-acrylates. Prior to 1986 see A04-E10.
1986

A04-E **Others**
e.g. allyl chloride, chloroethyl vinyl ether.

A04-F **POLYMERS FROM NITROGEN- AND HALOGEN-FREE, SUBSTITUTED ALIPHATIC MONOOLEFINIC MONOMERS**

A04-F01 **General**

A04-F01A . **Uses**
Prior to 1986 see A04-F01.
1986

A04-F01A1 .. **Adhesives and binders; coatings**
Prior to 1986 see A04-F01.
1986

A04-F02 **Aldehyde (co)polymers**
e.g. acrolein.

A04-F03 **Ketone (co)polymers**
e.g. methyl vinyl ketone, methyl isopropenyl ketone.

A04-F04 **(Meth)acrylic acid or anhydride (co)polymers**
Including metal and ammonium salts.

A04-F04A . **Production, compositions**
Prior to 1970 see A04-F04.
1970

A04-F04B . **Adhesives and binders; coatings**
Prior to 1970 see A04-F04.
1970

A04-F05 **Other carboxylic acid or anhydride (co)polymers**
Excluding A04-F04+; including metal and ammonium salts, e.g. maleic anhydride, itaconic acid.

A04-F06 **(Meth)acrylic ester (co)polymers**
Including glycidyl acrylates (with A05-A04). Applied during the pre-70 (pre-CPI) accession number range 60,001P - 79,999P and was then discontinued.
1966-1967

A04-F06A . **Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-F06.
pre-1970

A04-F06B . **Compositions**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-F06.
pre-1970

A04-F06C . **Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-F06.
pre-1970

A04-F06D . **Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-F06.
pre-1970

A04-F06E . **Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-F06.
pre-1970

A04-F06E1 .. **Adhesives, coatings**
Applied from the start of 1970 to the end of 1985 and was then discontinued. Prior to 1970 see A04-F06E.
1970-1985

A04-F06E2 .. **Textile coatings and finishes**
Prior to 1970 see A04-F06E.
1970

A04-F06E3 .. **Oil and fuel additives**
Prior to 1970 see A04-F06E.
1970

A04-F06E4 .. **(Electro)photographic, optical**
Prior to 1986 see A04-F06E.
1986

A04-F06E5 .. **Medical, dental, cosmetic and veterinary**
Prior to 1986 see A04-F06E.
1986

A04-F06E6 .. **Adhesives and binders**
Prior to 1986 see A04-F06E1.
1986

A04-F06E7 .. **Coatings**
Excluding A04-F06E2. Prior to 1986 see A04-F06E1.
1986

A04-F07 **Esters of unsaturated carboxylic acids and saturated alcohols (co)polymers**
Excluding A04-F06+; e.g. dibutyl maleate.

A04-F08 **Vinyl acetate homopolymer**

A04-F09 **Vinyl acetate copolymers**
Excluding ethylene-vinyl acetate copolymer (EVA) for which see A04-G07.

A04-F10 **Other vinyl carboxylate (co)polymers**
Excluding A04-F08, A04-F09; e.g. vinyl butyrate, vinyl stearate.

A04-F11 **Ether (co)polymers**
e.g. vinyl isobutyl ether, allyl ethers.

A04-F **Others**
e.g. vinylene carbonate, allyl alcohol. For polyvinyl acetal, butyral and formal see A10-E02; for polyvinyl alcohol (PVA) see A10-E09+. Excluding vinyl or allyl inorganic acids (and their metal salts) or their esters, for which see A04-A.

A04-G **POLYMERS FROM UNSUBSTITUTED (CYCLO)-ALIPHATIC MONOOLEFINIC MONOMERS**

A04-G01 **General**
Applied during pre-70 (pre-CPI) accession number range 60,001P - 79,999P and was then discontinued.
1966-1967

A04-G01A **. Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G01.
pre-1970

A04-G01B **. Compositions**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G01.
pre-1970

A04-G01C **. Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G01.
pre-1970

A04-G01D **. Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G01.
pre-1970

A04-G01E **. Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G01.
pre-1970

A04-G02 **Ethylene homopolymer**
Applied during pre-1970 (pre-CPI) accession number range 60,000P - 79,999P and was then discontinued.
1966-1967

A04-G02A **. Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G02.
pre-1970

A04-G02B **. Compositions**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G01.
pre-1970

A04-G02C **. Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G02.
pre-1970

A04-G02D **. Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G02.
pre-1970

A04-G02E **. Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G02.
pre-1970

A04-G02E1 **.. Adhesives and binders; coatings; textiles**
Prior to 1970 see A04-G02E.
1970

A04-G02E2 **.. Films; packaging**
Prior to 1970 see A04-G02E.
1970

A04-G02E3 **.. (Electro)photographic; medical; dental, cosmetic and veterinary; household, office**
Prior to 1970 see A04-G02E.
1970

A04-G02E4 **.. Electrical and mechanical; engineering; building, civil engineering**
Prior to 1986 see A04-G02E.
1986

A04-G03 **Propylene homopolymer**
Applied during pre-1970 (pre-CPI) accession number range 60,001P - 79,999P and was then discontinued.
1966-1967

A04-G03A . **Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G03.
pre-1970

A04-G03B . **Compositions**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G03.
pre-1970

A04-G03C . **Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G03.
pre-1970

A04-G03D . **Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G03.
pre-1970

A04-G03E . **Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A04-G03.
pre-1970

A04-G03E1 .. **Films; packaging; (electro)photographic; medical, dental, cosmetic and veterinary; household, office**
Prior to 1970 see A04-G03E.
1970

A04-G04 **Butene-1 (co)polymers**

A04-G05 **Isobutene (co)polymers**
Excluding with isoprene for which see A04-G05A.

A04-G05A . **Butyl rubber**
i.e. isobutene-isoprene copolymer. Prior to 1970 see A04-G05.
1970

A04-G06 **Ethylene copolymers with olefin-1**
Including LLDPE and terpolymers such as EPDM.

A04-G06A . **Production, compositions**
Prior to 1970 see A04-G06.
1970

A04-G07 **Ethylene with vinyl acetate (EVA)**

A04-G08 **Ethylene copolymers**
Excluding A04-G06+, A04-G07. See also A04-G11.

A04-G08A . **Ethylene copolymers with unsaturated acids, anhydrides or esters**
For ionomers see A10-E21B. Prior to 1986 see A04-G08.
1986

A04-G09 **Propylene copolymers**
Excluding A04-G06+.

A04-G10 **4-Methylpentene-1 (co)polymers**

A04-G11 **Ethylene co-polymers, general**
Indexed where three or more copolymers of ethylene are present.
1994
Previous code(s): A04-G01+, A04-G06+, A04-G07, A04-G08+

A04-G **Others**
e.g. from hexene-1, norbornene, vinyl cyclohexane; including polyalkenamers i.e. involving ring opening without affecting C-C double bond.

A04-H **ADDITION TYPE RESINS**
2002

A04-H00H **General addition type resin**
2002

A05 CONDENSATION POLYMERS

A05-A **EPOXY RESINS**
i.e. any compound containing 2 or more epoxy groups. For polymers containing epoxy groups by modification see A10-E+ e.g. epoxidised novolacs see A10-E08C. For acrylated epoxy resins (vinyl ester resins) see A10-E07B.

A05-A01 **General**
Applied during the pre-70 (pre-CPI) accession number range 60,000P - 79,999P and was then discontinued.
1966-1967

A05-A01A **. Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-A01.
pre-1970

A05-A01B **. Compositions**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-A01.
pre-1970

A05-A01B1 **.. With crosslinking agent or system**
Prior to 1986 see A05-A01B.
1986

A05-A01C **. Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-A01.
pre-1970

A05-A01D **. Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-A01.
pre-1970

A05-A01E **. Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-A01.
pre-1970

A05-A01E1 **.. Adhesives, coatings**
Applied from the start of 1970 to the end of 1985 and was then discontinued. Prior to 1970 see A05-A01E.
1970-1985

A05-A01E2 **.. Electrical engineering**
Including electrical encapsulation. Prior to 1970 see A05-A01E.
1970

A05-A01E3 **.. Adhesives and binders**
Prior to 1986 see A05-A01E1.
1986

A05-A01E4 **.. Coatings**
Prior to 1986 see A05-A01E1.
1986

A05-A02 **Glycidyl ethers of phenols**
e.g. bisphenol-A diglycidyl ether.

A05-A03 **Glycidyl ethers of alcohols**
e.g. butanediol diglycidyl ether.

A05-A04 **Other glycidyl cpds.**
e.g. diglycidyl carboxylates; diglycidyl derivatives of amines; (co)polymers of glycidyl acrylates (with A04-F06+); polyglycidyl derivatives of isocyanuric acid.

A05-A05 **Cycloaliphatic epoxides**
e.g. vinyl cyclohexene diepoxide.

A05-A **Others**
e.g. butadiene diepoxide.

A05-B **AMINOPLASTS**
e.g. reaction products of aldehyde/ketone with amine/amide, usually involving alkylolation and then polycondensation. For etherified aminoplasts e.g. alkoxylated MF see A10-E08C.

A05-B01 **General**

A05-B02 **Melamine-formaldehyde (MF) resins**
For 'alkylated' e.g. butylated or methoxy- methylolated MF resins see A10-E08C.

A05-B03 **Urea-formaldehyde (UF) resins**

A05-B04 **Ethylene- or propylene-urea (derivatives)-formaldehyde resins**

A05-B **Others**
e.g. dicyandiamide-, benzoguanamine-formaldehyde resins.

A05-C **PHENOPLASTS**
i.e. reaction products of aldehyde/ketone with phenol(s) usually involving alkylolation e.g. methylolation and then polycondensation. Includes resols and novolacs.

A05-C01 **General**

A05-C01A . **Production, compositions**
Prior to 1970 see A05-C01.
1970

A05-C01B . **Uses**
Prior to 1986 see A05-C01.
1986

A05-C01B1 .. **Adhesives and binders; coatings; laminates; reinforced plastics**
Prior to 1986 see A05-C01.
1986

A05-C01B2 .. **(Electro)photographic use**
1994
Previous code(s): A05-C01B

A05-C02 **Polyhydric phenols and any aldehyde**
e.g. resorcinol-formaldehyde resins.

A05-C03 **Monohydric, mononuclear phenols and formaldehyde**
e.g. phenol-formaldehyde, cresol-formaldehyde.

A05-C03A . **Adhesives and binders; coatings; laminates; reinforced plastics**
Prior to 1986 see A05-C03.
1986

A05-C04 **Monohydric, mononuclear phenols and any other aldehyde**

A05-C **Others**
e.g. from monohydric, polynuclear phenols.

A05-D **UNSATURATED LINEAR POLYMERS**
For all non-linear unsaturated polyesters see A05-E08. A reference to polyester with no further details is assumed to be of the type A05-D02+ if used for crosslinkable /reinforced compositions or products.

A05-D01 **General**

A05-D02 **Unsaturated polyesters from unsaturated dibasic acids**
Acids include derivatives e.g. acid halides, anhydrides, esters, metal salts. Applied during the pre-1970 (pre-CPI) accession number range 60,001P - 79,999P and was then discontinued.
1966-1967

A05-D02A . **Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-D02.
pre-1970

A05-D02B . **Compositions**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-D02.
pre-1970

A05-D02C . **Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-D02.
pre-1970

A05-D02D . **Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-D02.
pre-1970

A05-D02E . **Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-D02.
pre-1970

A05-D02E1 .. **Building, civil engineering; laminates**
Prior to 1970 see A05-D02E.
1970

A05-D **Others**
e.g. unsaturated polyesters from saturated dibasic acids and unsaturated dihydric alcohols.

A05-E **SATURATED POLYESTERS**
Including aromatic unsaturation, but excluding olefinic or acetylenic unsaturation. Acids include derivatives e.g. acid halides, anhydrides, esters, metal salts. Dihydric alcohols and phenols include derivatives e.g. acetates, haloformates. Polyesters which are subsequently used for polyesterurethanes are only searchable in A05-E: if their production is novel. For all polyesterurethanes see A05-G02 except for foams when see A12-S02+. A reference to polyester with no further details is assumed to be of the type A05-E: section if used for fibres, films, paints and thermoplastic polyester mouldings.

A05-E01 **General**

A05-E01A . **Production, compositions**
Applied from the start of 1970 to the end of 1985 and was then discontinued. Prior to 1970 see A05-E01.
1970-1985

A05-E01A1 .. **Production**
Prior to 1986 see A05-E01A.
1986

A05-E01A2 .. **Compositions**
Prior to 1986 see A05-E01A.
1986

A05-E01B . **Textiles, textile treatments**
Prior to 1970 see A05-E01.
1970

A05-E01B1 .. **Mechanical treatment**
Prior to 1986 see A05-E01B.
1986

A05-E01B2 .. **Chemical treatment**
Including dyeing. Prior to 1986 see A05-E01B.
1986

A05-E01B3 .. **Specific uses**
Prior to 1986 see A05-E01B.
1986

A05-E01C . **Fabrication, treatment**
Excluding A05-E01B+. Prior to 1986 see A05-E01.
1986

A05-E01D . **Uses**
Excluding A05-E01B+. Prior to 1986 see A05-E01.
1986

A05-E01D1 .. **Adhesives and binders; coatings**
Prior to 1986 see A05-E01.
1986

A05-E01D2 .. **Electrical engineering**
Prior to 1986 see A05-E01.
1986

A05-E01D3 .. **Films; packaging**
Prior to 1986 see A05-E01.
1986

A05-E02 **From saturated, (cyclo)aliphatic, dicarboxylic acids and dihydric alcohols or phenols; hydroxyacids; or lactones and glycolides**

A05-E02A . **From saturated, (cyclo)aliphatic, dicarboxylic acids and dihydric alcohols or phenols**
2005

A05-E02B . **From hydroxyacids**
e.g. polyhydroxybutyrate, polyhydroxyvalerate.
2005

A05-E02C . **From lactones and glycolides**
2005

A05-E03 **From isophthalic acid and dihydric alcohols or phenols**
Excluding from ring substituted isophthalic e.g. 5-sulfoisophthalic acid, for which see A05-E05. Including from copolymers of isophthalic acid and terephthalic acid.

A05-E04 **From terephthalic acid and dihydric alcohols or phenols**
Excluding from ring substituted terephthalic, for which see A05-E05. Applied during the pre-70 (pre-accession number range 60,001P - 79,999P and was then discontinued.
1966-1967

A05-E04A . **Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-E04.
pre-1970

A05-E04B . **Compounding**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-E04.
pre-1970

A05-E04C . **Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-E04.
pre-1970

A05-E04D . **Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-E04.
pre-1970

A05-E04E . **Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-E04.
pre-1970

A05-E05 **From other aromatic di-carboxylic acids and dihydric alcohols or phenols**
i.e. excluding A05-E03, A05-E04+, e.g. from 5-sulfoisophthalic acid. For saturated polyesters based on naphthalene dicarboxylic acid see A05-E05A.

A05-E05A . **From naphthalene dicarboxylic acid and dihydric alcohol or phenol**
1994
Previous code(s): A05-E05

A05-E06 **Polycarbonates; poly-thiocarbonates**

A05-E06A . **Production; compositions**
Prior to 1986 see A05-E06.
1986

A05-E06B . **Uses**
Prior to 1986 see A05-E06.
1986

A05-E07 **Polyesteramides; polyesterimides**
With A05-J01+.

A05-E08 **Alkyd resins**
All types including glyptal resins, non-linear polyesters, drying oil or non-drying oil derived polyesters. Prior to 1970 see A05-E.
1970

A05-E09 **Polyetheresters**
e.g. Hytrel®. Prior to 1986 see the appropriate A05-E: section and A05-H: section e.g. for production of polybutylene-terephthalate polytetramethylene glycol (Hytrel®) see A05-E04A and A05-H05.
1986

A05-E10 **Polyarylates**
Prior to 1986 see A05-E01+, A05-E03, A05-E04+ and A05-E05.
1986

A05-E **Others**
e.g. from dibasic non-carboxylic acids e.g. benzenedisulfonic acid; from heterocyclic diacids.

A05-F **POLYAMIDES**
Contain -CON(R)- groups in the backbone of the repeat unit. Including from S containing acids. Excluding polyesteramides for which see A05-E07. Acids include derivatives e.g. acid halides, anhydrides, esters, metal salts.

A05-F01 **General**
Applied during the pre-1970 (pre-CPI) accession number range 60,0001P - 79,999P and was then discontinued.
1966-1967

A05-F01A . **Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-F01.
pre-1970

A05-F01B . **Compositions**
Applied from 80,000P (pre-CPI) to the end of 1985 and was then discontinued. Prior to 80,000P see A05-F01.
1967-1985

A05-F01B1 .. **With additives**
Including polymeric. Prior to 1986 see A05-F01B.
1986

A05-F01B2 .. **With polymers**
i.e. mixture. Prior to 1986 see A05-F01B.
1986

A05-F01C . **Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-F01.
pre-1970

A05-F01D . **Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-F01.
pre-1970

A05-F01E . **Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-F01.
pre-1970

A05-F01E1 .. **Textiles**
Prior to 1970 see A05-F01E.
1970

A05-F01E2 .. **Electrical and mechanical engineering**
Prior to 1970 see A05-F01E.
1970

A05-F01E3 .. **Films; packaging; medical, dental, cosmetic and veterinary; (electro) photographic**
Prior to 1986 see A05-F01E.
1986

A05-F02 **From aliphatic dibasic acid(s) and any diamine(s)**
e.g. nylon 6:6 and nylon 6:10.

A05-F03 **From lactam(s) and/or amino acid(s)**
e.g. nylon 6, nylon 11.

A05-F04 **Polyaminoamides from polymerised vegetable oil acids and polyamino components (Versamids®)**

A05-F05 **Polyamides from aromatic dicarboxylic acid(s) and aromatic diamine(s) only**
Including aramids, Kevlar®. Prior to 1986 see A05-F.
1986

A05-F **Others**
e.g. from di-isocyanates and di-acids; polyamideimides (with A05-J01+).

A05-G **POLYURETHANES**
Contain -NHCOO- groups in the backbone of the repeat unit. For polyurethane foams see A12-S02+ only. Includes polythiourethanes. For polyurethane polyurea see also A05-J04. Isocyanates may be blocked isocyanates (with A02-C).

A05-G01 **General**
Applied during the pre-70 (pre-CPI) accession number range 60,001P - 79,999P and was then discontinued.
1966-1967

A05-G01A **. Production**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-G01.
pre-1970

A05-G01B **. Compositions**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-G01.
pre-1970

A05-G01C **. Fabrication**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-G01.
pre-1970

A05-G01D **. Treatment**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-G01.
pre-1970

A05-G01E **. Uses**
Applied during the accession number range 80,000P (pre-CPI) to date. Prior to 80,000P see A05-G01.
pre-1970

A05-G01E1 **.. Coatings**
Prior to 1970 see A05-G01E.
1970

A05-G01E2 **.. Electrical and mechanical engineering**
Prior to 1986 see A05-G01E.
1986

A05-G02 **From polyester polyol(s) and isocyanate(s)**
For polyester polyols do not search code(s) from A05-E:, see note under Polyesters.

A05-G03 **From polyether polyol(s) and isocyanate(s)**
For polyether polyols do not search code(s) from A05-H:, see note under Polyethers.

A05-G04 **From monomeric polyols and isocyanate**
e.g. from butanediol.

A05-G **Others**
e.g. from polybutadiene diol and isocyanate(s); from bis-haloformates and diamines.

A05-H **POLYETHERS**
Polyethers which are subsequently used for polyetherurethanes are only searchable in A05-H: if their production is novel. For all polyetherurethanes see A05-G03 except for foams when see A12-S02+. For end modified polyalkylene oxides see A10-E+ e.g. for polyoxyethylene nonylphenol ether see A10-E08B.

A05-H01 **General**

A05-H01A **. Production, compositions**
Prior to 1986 see A05-H01.
1986

A05-H01B **. Uses**
Prior to 1986 see A05-H01.
1986

A05-H02 **Oxymethylene (co)polymers (acetal resin)**
Including formaldehyde homologues e.g. trioxane.

A05-H02A **. Production, compositions**
Prior to 1970 see A05-H02.
1970

A05-H03 **Oxyethylene (co)polymers**

A05-H03A **. Production, compositions general**
Prior to 1970 see A05-H03.
1970

A05-H03A1 **.. Oxyethylene homopolymer production**
2002

A05-H03A2 **.. Copolymer production**
2002

A05-H03A3 .. **Oxyethylene homopolymer compositions**
2002

A05-H03A4 .. **Copolymer compositions**
2002

A05-H04 **Oxypropylene (co)polymers**
Including epihalohydrin polymers.

A05-H04A . **Production, compositions general**
2002

A05-H04A1 .. **Oxypropylene homopolymer production**
2002

A05-H04A2 .. **Copolymer production**
2002

A05-H04A3 .. **Oxypropylene homopolymer compositions**
2002

A05-H04A4 .. **Copolymer compositions**
2002

A05-H05 **From furans and derivatives**
e.g. polytetrahydrofuran.

A05-H06 **Phenoxy resins**
i.e. from dihydric phenols, including bisphenols, and epihalohydrins; excluding A05-A02.

A05-H07 **Aromatic polyethers**
Excluding A05-H06.

A05-H07A . **Polyarylene ethers**
1994
Previous code(s): A05-H07

A05-H **Others**
e.g. Polyglycerol

A05-J OTHER POLYMERS

A05-J01 **Polyimides**
e.g. formed from a tetracarboxylic acid and a diamine. Including polyamic acid. For polyamideimides see also A05-F.

A05-J01A . **Production, compositions**
Prior to 1986 see A05-J01.
1986

A05-J01B . **Uses**
Prior to 1986 see A05-J01.
1986

A05-J02 **Heterocyclic polymers produced by cyclisation during polycondensation**
Including: e.g. polyhydantoins, polyparabanic acid, polybenzimidazoles, polyisocyanurates, polycyanurates, polyoxazoli(di)nes, polydopamine, polyuretidione. Excluding polyimides, for which code from A05-J01+.

A05-J03 **Polyanhydrides**

A05-J04 **Polyureas; polythioureas**
e.g. from polyamines and polyisocyanates.

A05-J05 **Polysulfides; polyepisulfides (polythioethers, thiokols); polyene-polythiol polymers**

A05-J05A . **Poly(arylene sulfides)**
e.g. polyphenylene sulfide.
1994
Previous code(s): A05-J05

A05-J06 **Polysulfones**
All types including polyethers containing sulfone group(s) from 1986. For earlier references see A05-H07.

A05-J07 **Polyalkyleneimines**
e.g. polyethylene imine.

A05-J08 **Aldehyde or ketone condensates**
Excluding A05-B:, A05-C:, A05-H02+; e.g. naphthalenesulfonic acid-formaldehyde condensates, furfural resins. Prior to 1970 see A05-J.
1970

A05-J09 **Amine-epihalohydrin polymers; polycarbodiimides, polyhydrazides**
Including polybrene. Prior to 1977 see A05-J.
1977

A05-J10 **Polyketones**
Including poly(ether) ether ketones e.g. PEEK®. Prior to 1986 see A05-J and A05-H07 for structures such as (OCC6H4COOC6H4)n and (OC6H4OC6H4COC6H4)n respectively.
1986

A05-J11 **Polyimines**
Excluding polyalkylene imines for which see A05-J07; A05-J09; e.g. polyamine-polymaleimide resins, polyanilines, biguanide polymers. Prior to 1986 see A05-J.
1986

A05-J12 **Polypyrroles and polythiophenes**
Optionally substituted.
1994
Previous code(s): A05-J

A05-J13 **(Methylene)Arylene polymer**
Includes e.g. poly-p-xylylene, polyfluorenes, xylok resins (phenol-aralkyl resin).
2022

A05-J **Others**
Excluding A05-A01 to A05-J13; e.g.furan resins (from furfuryl alcohol), Friedel-Crafts resins and phenol- terpene resins.

A05-K **CONDENSATION TYPE RESINS**
2002

A05-K00K **General condensation type resin**
2002

A06 INORGANIC POLYMERS

Natural inorganic polymers such as silicates are not indexed in section A.

A06-A **SILICON POLYMERS**
Including silicones, polysiloxanes, polysilazanes.

A06-A **General**
Applied during the pre-1970 (pre-CPI) accession number range 60,001P - 79,999P and was then discontinued.
1966-1967

A06-A00A **. Production**
Applied during the accession number range 80,000P (pre-CPI to date). Prior to 80,000P see A06-A.
pre-1970

A06-A00B **. Compositions**
Applied during the accession number range 80,000P (pre-CPI to date). Prior to 80,000P see A06-A
pre-1970

A06-A00C **. Fabrication**
Applied during the accession number range 80,000P (pre-CPI to date). Prior to 80,000P see A06-A.
pre-1970

A06-A00D **. Treatment**
Applied during the accession number range 80,000P (pre-CPI to date). Prior to 80,000P see A06-A.
pre-1970

A06-A00E **. Uses**
Applied during the accession number range 80,000P (pre-CPI to date). Prior to 80,000P see A06-A.
pre-1970

A06-A00E1 **.. Adhesives and binders; coatings, textile treatment**
Prior to 1970 see A06-A00E.
1970

A06-A00E2 **.. Chemical, electrical and mechanical engineering**
Prior to 1970 see A06-A00E.
1970

A06-A00E3 **.. Medical, dental, cosmetic and veterinary**
Prior to 1986 see A06-A00E.
1986

A06-A00E4 **.. (Electro)photographic; printing; optical**
Prior to 1986 see A06-A00E.
1986

A06-B **PHOSPHORUS POLYMERS**

A06-B **Phosphorus polymers**
i.e. Phosphorus present in repeat unit and not by modification e.g. polyphosphazenes.

A06-C **BORON POLYMERS**

A06-C **Boron polymers**
i.e. Boron present in repeat unit and not by modification e.g. polycarboranes.

A06-D **METAL OR METALLOID CONTAINING POLYMERS**

A06-D01 **Alum(in)oxanes**
1994
Previous code(s): A06-D

A06-D **Metal or metalloid containing polymers**
i.e. metal(loid) in repeat unit and not by modification; e.g. polygermanates, polytitanates.

A07 POLYMER BLENDS, AQUEOUS DISPERSIONS

A07-A **MIXTURES OF POLYMERS**
Used for genuine mixtures only and not for polymeric additives. N.B. Natural polymers are those coded in A03: addition polymers are those coded in A04: condensation polymers are those coded in A05: and A06:.

A07-A **Mixtures**
Applied from the start of Plasdoc to the end of 1969 and was then discontinued.
1966-1969

A07-A01 **Containing natural polymers**
Excluding natural rubber for which see A07-A02A. Prior to 1970 see A07-A.
1970

A07-A01A **. Containing tar, pitch, bitumen and/or petroleum resins**
Prior to 1986 see A07-A01.
1986

A07-A02 **Containing addition (co)polymers only**
The following sub-divisions are hierarchical e.g. a PVC-polyolefin mixture is coded A07-A02B only. Prior to 1970 see A07-A.
1970

A07-A02A **. From diolefinic monomers or natural rubber**
Prior to 1977 see A07-A02.
1977

A07-A02A1 **.. Containing butadiene (co)polymers**
Prior to 1986 see A07-A02A.
1986

A07-A02B **. From nitrogen or halogen containing monoolefinic monomers**
Prior to 1977 see A07-A02.
1977

A07-A02C **. From aliphatic substituted monoolefinic monomers not containing nitrogen or halogen**
Prior to 1977 see A07-A02.
1977

A07-A02D **. From monoolefinic aliphatic hydrocarbons**
No other polymer type in blend. Prior to 1977 see A07-A02.
1977

A07-A03 **Containing condensation polymers only**
Prior to 1970 see A07-A.
1970

A07-A03A **. Containing saturated polyester and/or polycarbonate**
Prior to 1986 see A07-A03.
1986

A07-A03B **. Containing epoxy resin**
Prior to 1986 see A07-A03.
1986

A07-A03C **. Containing polyamide, polyurethane and/or polyether**
Prior to 1986 see A07-A03.
1986

A07-A03D **. Containing unsaturated polyester, alkyd, aminoplast and/or phenoplast**
Prior to 1986 see A07-A03.
1986

A07-A03E **. Other condensation polymer(s)**
2020

A07-A04 **Containing mixtures of addition and condensation polymers**
Prior to 1970 see A07-A.
1970

A07-A04A **. Epoxy resin**
Prior to 1977 see A07-A04.
1977

A07-A04B **. Phenoplast and/or aminoplast**
Prior to 1977 see A07-A04.
1977

A07-A04C **. Unsaturated polyester**
Prior to 1977 see A07-A04.
1977

A07-A04D **. Saturated polyester**
Including alkyds. Prior to 1977 see A07-A04.
1977

A07-A04E **. Polyamide, polyurethane and/or polyether**
Prior to 1977 see A07-A04.
1977

A07-A04F **. Other condensation polymer(s)**
Prior to 1977 see A07-A04.
1977

A07-A05 **Unspecified polymer**
2002

A07-B AQUEOUS DISPERSIONS AND LATEXES

A07-B **General**

A07-B01 **Rubber latexes**
Natural or synthetic. Prior to 1970 see A07-B.
1970

A07-B02 **Acrylic polymer dispersions**
Prior to 1977 see A07-B.
1977

A07-B03 **Other addition polymer dispersions**
Prior to 1977 see A07-B.
1977

A07-B04 **Natural and/or condensation polymer dispersions**
Prior to 1977 see A07-B.
1977

A08 ADDITIVES

This section covers all the conventional additives or materials associated with polymers. Some of these directly affect the properties of polymers (plasticisers, antioxidants etc.) while others affect indirectly e.g. emulsifiers for emulsion polymerisation, biocides for marine paints etc. Polymeric additives (not blends for which see A07-A: section) are included. See appropriate A08-A: through A08-S: sections in addition to the appropriate polymer code(s). Coding A08-M09+ code may involve additional code from A08-R: section (e.g. A08-R03 for carbon black conductive filler) and from A09-A: section (e.g. A09-A03 for conductivity). Expanded (e.g. microballoons) fillers are coded in the appropriate code from A08-R: section. For syntactic foam see A12-W12. The starting materials, the intermediates, processes and the catalysts used in the production of non-polymeric additives are not coded.

A08-A **STABILISERS**

A08-A01 **General**
Including multi- functional e.g. one compound acting as heat and light stabiliser.

A08-A01A **. For addition polymers**
Prior to 1986 see A08-A01.
1986

A08-A01A1 **.. For aliphatic monoolefinic (co)polymers**
Hydrocarbon only. Prior to 1986 see A08-A01.
1986

A08-A01B **. For condensation polymers**
Prior to 1986 see A08-A01.
1986

A08-A02 **Against ionising radiation**

A08-A03 **Against light or UV**

A08-A04 **Against heat**

A08-A04A **. Metal containing**
Including boron and silicon.
Prior to 1970 see A08-A04.
1970

A08-A05 **Antiozonant**

A08-A06 **Antioxidant**

A08-A07 **Metal inhibitors, chelating and sequestering agents**

A08-A **Others**
e.g. viscosity stabiliser, (water) treeing/tracking stabiliser.

A08-B **BLOWING AGENTS AND PORE FORMERS**
For intumescing agents search the appropriate code from this section and the appropriate code from A08-F.

A08-B01 **General**

A08-B02 **Compounds releasing carbon dioxide**
e.g. (bi)carbonate.

A08-B03 **Compounds releasing nitrogen**
e.g. azobisisobutyronitrile.

A08-B04 **Volatile materials; soluble materials**
i.e. pore formers.

A08-B04A **. Halohydrocarbon volatile blowing agents**
Includes perhalogenated compounds and Freons®.
1994
Previous code(s): A08-B04

A08-B04B **. Halogen free volatile blowing agents**
e.g. pressurised gases, hydrocarbons.
1994
Previous code(s): A08-B04

A08-B **Others**

A08-C **CROSSLINKERS, VULCANISERS, ACCELERATORS AND ACTIVATORS FOR ADDITION POLYMERS AND ETHYLENICALLY UNSATD. POLYMERS**

A08-C01 **General**

A08-C02 **Activators**
e.g. ZnO.

A08-C03 **Accelerators**
e.g. mercaptothiazoles, dithiocarbamates, guanidines, aminoaldehyde condensates.

A08-C04 **Sulphur (containing) crosslinkers**
Excluding A08-C05.

A08-C05 **Peroxides, persalts and other oxidisers crosslinkers**
e.g. hydroperoxides, potassium persulfate.

A08-C06 **Anti-scorch agents, cure retarders**

A08-C07 **Olefinically unsaturated monomeric crosslinkers**
e.g. ethyleneglycol dimethacrylate.
Prior to 1977 see A08-C.
1977

A08-C07A . **Styrene crosslinker**
Prior to 1986 see A08-C07.
1986

A08-C08 **Polymeric crosslinker**
Prior to 1977 see A08-C.
1977

A08-C09 **Phenol, nitrogen or metal containing compounds crosslinkers**
Excluding A08-C04, A08-C05, A08-C07, A08-C08; e.g. azobisisobutyronitrile, BF3. Prior to 1977 see A08-C.
1977

A08-C09A . **Isocyanate crosslinkers**
Excluding A08-C04, A08-C05, A08-C07 and A08-C08.
1994
Previous code(s): A08-C09

A08-C10 **Water crosslinker**
1994
Previous code(s): A08-C

A08-C **Other crosslinkers**
e.g. non-metallic halonium salts.

A08-D **CROSSLINKERS AND ACCELERATORS FOR OTHER POLYMERS**
Excluding those covered by A08-C.

A08-D01 **General**

A08-D02 **Acids and anhydrides**

A08-D03 **Amines**
e.g. aminophenols, imidazoles, hexamethylene tetramine, ammonium chloride, including hydrazine and hydrazides.

A08-D04 **Nitrogen containing compounds**
Excluding A08-D03 ; e.g. polyamides.

A08-D04A . **(Poly)isocyanates**
Optionally blocked. Prior to 1986 see A08-D04.
1986

A08-D05 **Metal containing compounds and polymers thereof**
Including boron, phosphorus, silicon. Prior to 1986 see A08-D.
1986

A08-D06 **Water crosslinker**
1994
Previous code(s): A08-D

A08-D **Others**
e.g. peroxides, persalts.

A08-E **DYES AND PIGMENTS**
i.e. surface colouring agents and bulk colouring agents respectively.

A08-E01 **General**
Including printing pastes.

A08-E02 **Inorganic pigments**
Including inorganic delustrants, brighteners e.g. TiO2.

A08-E03 **Organic dyes**

A08-E03A . **Azo**
Prior to 1970 see A08-E03.
1970

A08-E03A1 .. **Monoazo, water soluble**
Prior to 1977 see A08-E03A.
1977

A08-E03A2 .. **Monoazo, water insoluble**
Prior to 1977 see A08-E03A.
1977

A08-E03A3 .. **Dis- and polyazo**
Prior to 1977 see A08-E03A.
1977

A08-E03B . **Anthraquinone**
Prior to 1970 see A08-E03.
1970

A08-E03C . **Optical brighteners**
Including delustrants, flatt(en)ing agents. Prior to 1970 see A08-E03.
1970

A08-E04 **Organic pigments**

A08-F **FLAME RETARDANTS**
For intumescing agents search the appropriate code from this section and the appropriate code from A08-B:.

A08-F01 **General**

A08-F02 **Antimony containing compounds**
e.g. Sb2O3.

A08-F03 **Phosphorus containing compounds**
e.g. red phosphorus, tricresyl phosphate.

A08-F04 **Halogen containing compounds**

A08-F04A . **Polymeric**
e.g. chlorinated polyethylene. Prior to 1977 see A08-F04.
1977

A08-F04B . **Non-polymeric aromatic or heterocyclic compounds**
With direct halogen-ring bond(s) e.g. tetrabromo-bisphenol A. Prior to 1977 see A08-F04.
1977

A08-F04C **. Non-polymeric (cyclo)aliphatic compounds**
e.g. carbon tetrabromide, hexabromocyclododecane. Prior to 1977 see A08-F04.
1977

A08-F05 **Aluminium hydroxide**
1994
Previous code(s): A08-F

A08-F **Others**
Including smoke inhibitors.

A08-M **MISCELLANEOUS AGENTS OR ADDITIVES**

A08-M01 **Adhesion improvers, subbing agents, bonding aids**
i.e. agents to improve the adhesiveness between polymer and substrate.

A08-M01A **. Dyeing and printing aids, dye receptiveness improving agents, dye levellers, dye/pigment dispersants**
Including polymeric. Prior to 1970 see A08-M01.
1970

A08-M01B **. Polymeric adhesion improvers**
Prior to 1977 see A08-M01.
1977

A08-M01C **. Acids, metal compounds adhesion improvers**
e.g. organo-aluminium or titanium compounds. Prior to 1977 see A08-M01.
1977

A08-M01D **. Silicon containing compounds adhesion improvers**
e.g. alkoxy silanes, vinyl silanes. Prior to 1977 see A08-M01.
1977

A08-M02 **Antiseptic, fungicidal, animal repellents**
e.g. tin compounds, copper compounds.

A08-M03 **Lubricants**
e.g. silicones, metal stearates.

A08-M03A **. Lubricants and oiling agents for fibres and textiles**
Prior to 1986 see A08-M03.
1986

A08-M03B **. Mould release agents; internal lubricants**
Prior to 1986 see A08-M03.
1986

A08-M04 **Odorants, deodorants**

A08-M05 **Tackifiers**

A08-M06 **Viscosity modifiers**
Excluding A08-A; including thixotropic agents, thickener.

A08-M07 **Antiblocking agents, dusting agents, slip agents**
i.e. materials applied to polymer surfaces to reduce their adhesiveness e.g. talc. Prior to 1970 see A08-M.
1970

A08-M08 **Prodegradants, peptising agents**
Prior to 1977 see A08-M.
1977

A08-M09 **Agents affecting mechanical, electrical, optical, magnetic and thermal properties**
Applied from the start of 1977 to the end of 1985 and was then discontinued. Prior to 1977 see A08-M.
1977-1985

A08-M09A **. Electrical, magnetic**
Prior to 1986 see A08-M09.
1986

A08-M09A1 **.. Carbon electroconductivity agent**
e.g. carbon nanotubes, fullerenes, graphene. Excl: (In)organic carbon compounds. Prior to 2011 see A08-M09A.
2011

A08-M09B **. Mechanical**
Prior to 1986 see A08-M09.
1986

A08-M09C **. Optical; thermal**
Prior to 1986 see A08-M09.
1986

A08-M09C1 **.. Carbon thermal conductivity agent**
e.g. carbon nanotubes, fullerenes, graphene. Excl: (In)organic carbon compounds. Prior to 2011 see A08-M09C.
2011

A08-M10 **Other specifically functional agents**
Including nucleating agents, corrosion stabilizer. Prior to 1977 see A08-M.
1977

A08-M10A **. Compatibility improver**
2017

A08-M **Others**
Includes additives of unspecified function.

A08-P **PLASTICISERS AND EXTENDERS**

A08-P01 **General**

A08-P02 **Phthalates**

A08-P03 **Other aromatic acid esters**
Excluding A08-P02; e.g. trimellitates.

A08-P04 **(Cyclo)Aliphatic carboxylic acid esters**
e.g. adipates, sebacates. Including cyclohexyl carboxylic acid esters.

A08-P05 **Inorganic acid esters**
e.g. phosphates.

A08-P06 **Hydroxy acid esters**
e.g. citrates.

A08-P07 **Epoxy compounds**
e.g. epoxidised soybean oil.

A08-P08 **Coal tar fractions, oils, waxes, hydrocarbons**
Excluding A08-P02 to A08-P07.

A08-P **Others**
e.g. glycerine, thioethers.

A08-R **FILLERS AND REINFORCING AGENTS**

A08-R01 **General**

A08-R02 **Asbestos**

A08-R03 **Carbon**
Including carbon black, graphite (non-fibrous).

A08-R03A . **Fibrous**
Prior to 1986 see A08-R03.
1986

A08-R04 **Glass**
Any form, including fibres, flake, powder, microspheres. See also A12-S08B.

A08-R05 **Metal**
Including boron, phosphorus, silicon; excluding compounds of metals.

A08-R06 **Silica and silicates**
Applied from the start of Plasdoc to the end of 1985 and was then discontinued.
1966-1985

A08-R06A . **Silica**
Including SiO2, sand, quartz, white carbon, aerosil, silicic acid, diatomite. Prior to 1986 see A08-R06.
1986

A08-R06B . **Silicates**
Including talc, mica, kaolin, clay, zeolite, wollastonite. Prior to 1986 see A08-R06.
1986

A08-R07 **Cellulosic**
Including wood powder/sawdust, shavings. Not to be searched for chipboard, hardboard or fibreboard, for which see A12-A04+.

A08-R08 **Polymeric**

A08-R08A . **Fibrous polymeric fillers**
1994
Previous code(s): A08-R08

A08-R08B . **Particulate polymeric fillers**
1994
Previous code(s): A08-R08

A08-R09 **Whiskers**
e.g. potassium titanate. Prior to 1986 see A08-R.
1986

A08-R **Others**
Including metal compounds e.g. CaCO3, BaSO4.

A08-S **SURFACE ACTIVE AGENTS**
Excluding adhesion improvers, tackifiers, lubricants, antiblocking agents, for which see A08-M:.

A08-S01 **General**

A08-S02 **Solvents; swelling agents**

A08-S03 **Anti-foaming agents**

A08-S04 **Anti-static agents**

A08-S05 **Emulsifiers; wetting agents**

A08-S06 **Protective colloids**

A08-S07 **Foam stabilisers; cell control agents**
Prior to 1977 see A08-S.
1977

A08-S08 **Absorption agents; repellance agents**
Including scale inhibitors, antifog agents. For use of polymeric repellant finishes on fibres see A12-G03 only. Prior to 1977 see A08-S.
1977

A08-S09 **Anti-settling agents**
e.g. fumed silica.
2018

A08-S **Others**
Including coagulants.

A09 PROPERTIES, ANALYSIS, TESTING, CONTROL

A09-A **PROPERTIES**
Coded only where the particular property is of exceptional importance. Properties resulting from a functional additive are not coded. However, properties related to polymer structure are coded.

A09-A01 **Non-flammability**

A09-A01A . **Thermal properties**
Including heat stability. Prior to 1970 see A09-A01.
1970

A09-A02 **Optical properties**
Including transparency and refractive index.

A09-A02A . **Liquid crystal, nematic properties**
e.g. optically anisotropic melt. Prior to 1986 no specific code was available.
1986

A09-A03 **Electrical**
e.g. (non)-conductivity. Including for (doped) polyacetylenes.

A09-A03A . **Electroluminescent property**
2002

A09-A04 **Magnetic properties**

A09-A05 **Mechanical**

A09-A05A . **Impact strength, toughness**
Prior to 1986 see A09-A05.
1986

A09-A05B . **Shape-memory property**
Includes self-healing, self-repairing. Prior to 2005 see A09-A05.
2005

A09-A06 **Dyeability, printability**
Prior to 1977 see A09-A.
1977

A09-A07 **Biodegradability**
1994
Previous code(s): A09-A

A09-A08 **Absorption/adsorption properties**
1994
Previous code(s): A09-A

A09-A09 **Permeability properties**
Includes semipermeability and gas barrier properties.
1994
Previous code(s): A09-A

A09-A **Others**
e.g. fungicidal.

A09-B **ANALYSIS**

A09-B **Analysis**
i.e. of chemical constitution.

A09-C **TESTING**

A09-C **Testing**
i.e. of physical properties.

A09-D **EQUIPMENT CONTROL, SAFETY DEVICES**

A09-D **Equipment control, safety devices**
Applied from the start of Plasdoc to the end of 1985 and was then discontinued.
1966-1985

A09-D01 **Moulding processes**
i.e. involving moulds e.g. injection. Prior to 1986 see A09-D.
1986

A09-D02 **Involving extruders**
Prior to 1986 see A09-D.
1986

A09-D03 **Others**
Prior to 1986 see A09-D.
1986

A10 POLYMERISATION, POLYMER MODIFICATION

Addition (co)polymerisation of alkylene oxides, lactones, lactams, alkylene-imines is coded under A10-D: section only. For microsuspension polymerisation see A10-B03 and A10-B05. For inverse phase polymerisation see A10-B02, A10-B05 and A10-B. For descaling of plant see A10-G02. For descaling additive see also A08-S08. Treatment of effluent following polymerisation is coded under A10-G.

A10-A **NATURAL POLYMER PRODUCTION**

A10-A **Natural polymer production**
Excluding modification of natural polymers; including petroleum resin production, extraction of natural polymers e.g. tapping of rubber trees.

A10-B **ADDITION (CO)POLYMERISATION**
Excluding A10-C:.

A10-B01 **General**
Including equipment.

A10-B02 **Bulk**

A10-B03 **Emulsion**

A10-B04 **Solution**

A10-B05 **Suspension**

A10-B06 **Irradiation**

A10-B07 **Interfacial**

A10-B08 **Oligomerisation; telomerisation**
Including dimerisation. Prior to 1970 see A10-B.
1970

A10-B **Others**
e.g. gaseous phase, high pressure.

A10-C **ORDERED COPOLYMERISATION BY ADDITION**

A10-C01 **General**

A10-C02 **Block copolymerisation**

A10-C03 **Graft copolymerisation**

A10-C03A **. Grafting onto formed polymeric substrates**
Including fibres and articles. Prior to 1970 see A10-C03.
1970

A10-C03B **. By emulsion or suspension processes**
Prior to 1977 see A10-C03 and A10-C03A.
1977

A10-C03C **. By solution, bulk or irradiation initiated processes**
Prior to 1977 see A10-C03 and A10-C03A.
1977

A10-D **CONDENSATION POLYMERISATION**

A10-D01 **Interfacial**

A10-D02 **Ordered cocondensation**

A10-D03 **Ring opening or closure**
Prior to 1970 see A10-D.
1970

A10-D04 **Equipment**
Prior to 1970 see A10-D01, A10-D02 and A10-D appropriately.
1970

A10-D05 **Polyesterification**
Includes carbonate bond formation.
1994
Previous code(s): A10-D+

A10-D06 **Electrolytic/oxidative polymerisation**
1994
Previous code(s): A10-D

A10-D07 **General condensation polymerization**
2023

A10-D **Others**

A10-E **CHEMICAL MODIFICATION**
Including modified polymers. Modified polymers are always searched in A10-E:. Whenever the modification process is described, the unmodified polymer is additionally searchable. For imidation search both A10-E14 and A10-E17. Maleinised resins are coded A10-E23, e.g. maleinised rosin, polyisobutenyl maleic anhydride etc. Devulcanised polymer is coded A10-E. Vinyl silane modified polymer is coded A10-E03 and A10-E22A. If graft copolymerisation onto the polymer is involved, then A4-A and A10-C03+ also coded.

A10-E01 **General**

A10-E02 **Acetalisation**
Used for polyvinyl acetal, butyral, formal and polyvinyl ketals.

A10-E03 **Alkylation; arylation**
i.e. formation of C-C bond. e.g. haloalkylation, aminoarylation.

A10-E04 **Dehalogenation; (de)hydrohalogenation**

A10-E04A **. Halogenation**
Prior to 1986 see A10-E04.
1986

A10-E05 **Depolymerisation; degradation**

A10-E05A **. Pyrolysis of waste polymeric material**
Prior to 1977 see A10-E05.
1977

A10-E05B **. Carbonisation**
Excluding A10-E05A. Prior to 1977 see A10-E05.
1977

A10-E05C **. Depolymerisation to monomers or oligomers**
Prior to 1977 see A10-E05.
1977

A10-E06 **Epoxidation**
e.g. epoxidised polybutadiene. For epoxidised novolac see A10-E08C.

A10-E07 **Esterification**

A10-E07A **. By unsaturated polybasic acid (or derivatives)**
e.g. maleic acid. Prior to 1977 see A10-E07.
1977

A10-E07B **. By unsaturated monobasic acid (or derivatives)**
Including acrylated epoxy resins. Prior to 1977 see A10-E07.
1977

A10-E07C **. By saturated acid (or derivatives)**
Prior to 1977 see A10-E07.
1977

A10-E08 **Etherification**

A10-E08A **. (Cyclo)aliphatic ether of polyether containing oxyethylene and/or oxypropylene units only**
Prior to 1977 see A10-E08.
1977

A10-E08B **. Other ethers of polyoxyalkylene glycols**
Prior to 1977 see A10-E08.
1977

A10-E08C **. Other etherified polymers**
Including 'alkylated' melamine, e.g. (methoxy) methylolated melamine; epoxidised phenoplasts. Prior to 1977 see A10-E08.
1977

A10-E09 **Hydrolysis, saponification, alcoholysis, glycolysis**
For (partially) hydrolysed polyvinyl acetate or ethylene vinyl acetate copolymer see A10-E09A or A10-E09B+ appropriately. Including reactions of chitosan.

A10-E09A **. Polyvinyl alcohol compositions**
Prior to 1970 see A10-E09.
1970

A10-E09B **. Polyvinyl alcohol uses**
Prior to 1970 see A10-E09.
1970

A10-E09B1 **.. Adhesives and binders; coatings**
Prior to 1986 see A10-E09B.
1986

A10-E09B2 **.. Optical, (electro) photographic, laboratory; medical, dental, cosmetic and veterinary**
Prior to 1986 see A10-E09B.
1986

A10-E10 **Electric discharge, ultrasonic treatment and irradiation**
Including by UV and by ionising rays; excluding for crosslinking, for which see A11-C02B.

A10-E11 **Oxidation; ozonisation**
Including dehydrogenated polymers.

A10-E12 **Sulfonation or sulfohalogenation**
Applied from the start of Plasdoc to the end of 1985 and was then discontinued.
1966-1985

A10-E12A **. Sulfonation**
Prior to 1986 see A10-E12.
1986

A10-E12B **. Halosulfonation**
Prior to 1986 see A10-E12.
1986

A10-E13 **Hydrogenation**
Including reduction by other means.

A10-E14 **Cyclisation**

A10-E15 **Amidation, amination**
Applied from the start of CPI (1970) to the end of 1976 and was then discontinued. Prior to 1970 see A10-E.
1970-1976

A10-E16 **Incorporation of metal atoms**
Including boron, phosphorus and silicon. Applied from the start of CPI (1970) to the end of 1976 and was then discontinued. Prior to 1970 see A10-E.
1970-1976

A10-E17 **Amidation**
Prior to 1977 see A10-E15.
1977

A10-E17A **. Amidation of epoxy resins or polyethers**
2002

A10-E17B **. Amidation of other polymers**
2002

A10-E18 **Amination of epoxy resins or polyethers**
Prior to 1977 see A10-E15.
1977

A10-E19 **Amination of other polymers**
Prior to 1977 see A10-E15.
1977

A10-E20 **Incorporation of phosphorus**
Prior to 1977 see A10-E16.
1977

A10-E21 **Incorporation of alkali(ne earth) metal**
Including NH4+. Prior to 1977 see A10-E16.
1977

A10-E21A **. Natural polymers**
Prior to 1986 see A10-E21.
1986

A10-E21B **. Mono- or di-carboxylic unsaturated acid (co)polymers**
Prior to 1986 see A10-E21.
1986

A10-E22 **Incorporation of other metal(loid)s**
i.e. excluding A10-E20 and A10-E21+; including boron. Prior to 1977 see A10-E16.
1977

A10-E22A **. Incorporation of silicon**
Prior to 1986 see A10-E22.
1986

A10-E23 **Forming hydroxy or carboxy groups other than by hydrolysis**
Prior to 1977 see A10-E.
1977

A10-E24 **Nitration; urethanisation; sulfation; sulfurisation; xanthation; thio group formation**
Including acrylated polyurethanes prepared from e.g. isocyanate terminated prepolymers and hydroxyalkyl acrylates. Prior to 1977 see A10-E.
1977

A10-E **Others**

A10-G **OTHER MISCELLANEOUS PROCESSES**

A10-G01 **Purification and concentration of polymer**
Applied from the start of Plasdoc to the end of 1985 and was then discontinued.
1966-1985

A10-G01A **. Monomer, solvent, catalyst recovery/removal from polymer, including catalyst destruction; devolatalisation**
Prior to 1986 see A10-G01.
1986

A10-G01B **. Other purification and concentration of polymer**
Prior to 1986 see A10-G01.
1986

A10-G02 **Prevention/removal of scale on polymerisation vessels**
Including use of additives, coatings etc. Prior to 1986 see A10-G.
1986

A10-G **Others**
Including cleaning of polymerisation vessels.

A11 PROCESSING POLYMERS INCLUDING EQUIPMENT

A11-A PRELIMINARY PROCESSES

A11-A01 Colouring, bleaching

A11-A01A . With specific compositions
Prior to 1970 see A11-A01.
1970

A11-A01B . Processes
Prior to 1970 see A11-A01.
1970

A11-A02 Heating
Including pre-heating and drying; excluding annealing etc. for which see A11-B02+ and crosslinking for which see A11-C02+.

A11-A02A . Heating film/sheet, divided forms
e.g. powders, fibre or fabric. Prior to 1977 see A11-A02.
1977

A11-A02B . Heating other forms
Excluding A11-A02A; e.g. moulded articles, tubes, parisons. Prior to 1977 see A11-A02.
1977

A11-A02C . Cooling
Excluding A11-B07D. Prior to 1977 see A11-A02.
1977

A11-A03 Mixing, compounding, homogenising, blending

A11-A03A . Equipment
Prior to 1970 see A11-A03.
1970

A11-A04 Divided forms of polymer production
e.g. by granulation, grinding to powders, pelleting.

A11-A05 Cutting, sawing and other machining
Excluding A11-A04.

A11-A05A . Perforating, punching, slitting, drilling holes; cutting tubes and tyres
Prior to 1977 see A11-A05.
1977

A11-A05B . Deflashing and burr removal; cutting recesses, grooves, threads, etc., in surfaces
Prior to 1977 see A11-A05.
1977

A11-A05C . Cutting films and fabrics
e.g. during bag making. Prior to 1977 see A11-A05.
1977

A11-A06 Sieving, sorting, filtering, classifying
Classifying, sieving, filtering of raw materials.
2022

A11-A Others
Including methods of feeding raw materials, degassing, purging, vacuum hoppers.

A11-B FORMING PROCESSES

A11-B01 General

A11-B02 Annealing, crystallising, heat-setting, orienting, drawing, fibrillating

A11-B02A . Orienting/stretching film
Prior to 1970 see A11-B02.
1970

A11-B02B . Orienting/stretching fibres
Inc:fabric. Prior to 1970 see A11-B02.
1970

A11-B02C . Heat-setting films/fibres
Prior to 1970 see A11-B02.
1970

A11-B02D . Crimping, bulking
Prior to 1977 see A11-B02C.
1977

A11-B02E . Shrinking
Prior to 1977 see A11-B02C.
1977

A11-B03 Calendering

A11-B04 Casting; slush-, dip-, and rotary moulding, general
Including with monomer or condensant and polymerising.

A11-B04A . By rotational moulding, centrifugal casting
Prior to 1977 see A11-B04.
1977

A11-B04B . By other specific moulding methods
e.g. dip moulding, shell moulding; excluding A11-B04C. Prior to 1977 see A11-B04.
1977

A11-B04C . Forming films, sheets, lace
Prior to 1977 see A11-B04.
1977

A11-B05 Coating
Including spreading, encapsulation.

A11-B05A . **Electrodeposition, dipping**
Search with A11-B05D if coating is dispersion, solution or paste. Including fluidised bed. Prior to 1970 see A11-B05.
1970

A11-B05B . **Coating by spraying, flocking, extrusion, general**
Search with A11-B05D if coating is dispersion, solution or paste. Prior to 1970 see A11-B05.
1970

A11-B05B1 .. **By spraying**
Prior to 1986 see A11-B05B.
1986

A11-B05B2 .. **By extrusion**
Prior to 1986 see A11-B05B.
1986

A11-B05B3 .. **Spin coating**
2016

A11-B05C . **With monomer or condensant and polymerising**
Excluding A11-B04+; i.e. leaving a finished coating. Prior to 1977 see A11-B05, A11-B05A and A11-B05B appropriately.
1977

A11-B05D . **With dispersion, solution or paste**
Prior to 1977 see A11-B05, A11-B05A and A11-B05B appropriately.
1977

A11-B05E . **With powder, melt or foam**
Prior to 1977 see A11-B05, A11-B05A and A11-B05B appropriately.
1977

A11-B05F . **Encapsulation process**
Encapsulating.
2016

A11-B06 **Expanding, foaming, pore-forming**

A11-B06A . **To form specific goods**
Prior to 1970 see A11-B06.
1970

A11-B06B . **Involving extrusion**
Excluding A11-B06A. Prior to 1977 see A11-B06 and A11-B06A appropriately.
1977

A11-B06C . **Involving molding**
Excluding A11-B06A. Prior to 1977 see A11-B06 and A11-B06A appropriately.
1977

A11-B06D . **Involving other specific methods**
e.g. by dissolution, sintering; excluding A11-B06A. Prior to 1977 see A11-B06 and A11-B06A appropriately.
1977

A11-B07 **Extrusion and coextrusion**
Excluding coating by extrusion for which see A11-B05B2, extrusion spinning for which see A11-B15+ and extrusion foaming for which see A11-B06B.

A11-B07A . **Of film and sheet**
Including inflation forming tubular film. Prior to 1970 see A11-B07.
1970

A11-B07B . **Of tube and other profiles**
Excluding A11-B07A. Prior to 1970 see A11-B07.
1970

A11-B07C . **Other extrusion**
Prior to 1977 see A11-B07, A11-B07A and A11-B07B appropriately.
1977

A11-B07D . **Associated processes**
e.g. cooling, haul-off. Prior to 1977 see A11-B07, A11-B07A and A11-B07B appropriately.
1977

A11-B08 **Forming**
Including corrugating, winding strips to form tube.

A11-B08A . **Vacuum assisted forming of sheet or film**
Prior to 1977 see A11-B08.
1977

A11-B08B . **Forming of sheet or film**
Excluding A11-B08A. Prior to 1977 see A11-B08.
1977

A11-B08C . **Forming from tube or pipe**
Including fittings. Prior to 1977 see A11-B08.
1977

A11-B09 **Laminating; lay-up of reinforced plastics**
See also A12-S08+.

A11-B09A . **To form specific goods**
Prior to 1970 see A11-B09.
1970

A11-B09A1 .. **Involving fibrous/filament reinforcement**
Prior to 1986 see A11-B09A.
1986

A11-B09A2 .. **Involving non-fibrous material**
Excluding coextrusion laminating of film, for which see A11-B07A. Prior to 1986 see A11-B09A.
1986

A11-B09B . **Decorative laminate production; chip-, fibre-, cardboard and plywood**
Prior to 1977 see A11-B09.
1977

A11-B09C . **Fibre reinforced plastics (FRP) production, filament winding, pultrusion**
Excluding A11-B09A+. Prior to 1977 see A11-B09.
1977

A11-B09D . **Laminating non-fibrous bodies**
Excluding A11-B09A+; excluding coextrusion laminating of film, for which see A11-B07A. Prior to 1977 see A11-B09.
1977

A11-B09E . **Other laminating processes**
Excluding A11-B09A+. Prior to 1977 see A11-B09.
1977

A11-B10 **Blow molding**
Excluding A11-B07A.

A11-B11 **Compression and transfer moulding**

A11-B12 **Injection molding**

A11-B12A . **To form specific goods**
Prior to 1970 see A11-B12.
1970

A11-B12B . **Molds**
Prior to 1977 see A11-B12 and A11-B12A appropriately.
1977

A11-B12C . **Equipment**
Excluding A11-B12A and A11-B12B. Prior to 1977 see A11-B12 and A11-B12A appropriately.
1977

A11-B13 **Pressing (between flat platens)**

A11-B14 **Sintering**
Excluding A11-B06D.

A11-B15 **Spinning**
Including associated processes, e.g. take-off.

A11-B15A . **Heads, die design, spinnerettes**
Prior to 1970 see A11-B15.
1970

A11-B15B . **Melt**
Prior to 1970 see A11-B15.
1970

A11-B15B1 .. **High speed melt spinning**
1994
Previous code(s): A11-B15B

A11-B15C . **Solution**
i.e. wet or dry. Prior to 1970 see A11-B15.
1970

A11-B16 **Stereographic moulding**
Used for processes that produce a three-dimensional polymer form by sequential polymerising or curing, usually by computer control, onto a previously polymerised or cured surface, thus "building up" a three-dimensional moulding. Also used for 3D/4D-printing, additive manufacturing, rapid prototyping e.g. FDM, LOM, SFF. See also A10-B+, A10-C+, A10-D+, A11-C02B and/or A11-C02D if appropriate.
1994
Previous code(s): A11-B

A11-B17 **Tyre manufacture**
All processes. See also A11-C02A1 and A12-T01A.
1994
Previous code(s): A11-B

A11-B **Others**
Including insert incorporation.

A11-C **OTHER MISCELLANEOUS PROCESSES**
i.e. on (semi-)finished polymers.

A11-C01 **Bonding, glueing, welding, heat-sealing, riveting**

A11-C01A . **Heat sealing, welding to make specific goods**
e.g. ultrasonic, microwave. Prior to 1970 see A11-C01.
1970

A11-C01A1 .. **Involving film, sheet; packaging**
Prior to 1986 see A11-C01A.
1986

A11-C01B . **Heat sealing, welding, general**
e.g. ultrasonic, microwave. Prior to 1970 see A11-C01.
1970

A11-C01C . **Other bonding to make specific goods**
Prior to 1970 see A11-C01.
1970

A11-C01D . **Other bonding, general**
Prior to 1970 see A11-C01.
1970

A11-C02 **Crosslinking, curing, vulcanisation**

A11-C02A **. Rubber vulcanisation**
Prior to 1970 see A11-C02.
1970

A11-C02A1 **.. Tyre vulcanisation**
Prior to 1986 see A11-C02A.
1986

A11-C02B **. Crosslinking with irradiation**
Excluding A11-C02A and A11-C02A1. Prior to 1977 see A11-C02.
1977

A11-C02C **. Crosslinking involving coating and/or extrusion**
Excluding A11-C02A and A11-C02A1. Prior to 1977 see A11-C02.
1977

A11-C02D **. Crosslinking involving moulding and/or foaming**
Excluding A11-C02A and A11-C02A1. Prior to 1977 see A11-C02.
1977

A11-C03 **Scrap recovery**
Including retreading of tyres; reclaiming and recycling as well as use of reclaimed/recycled polymer.

A11-C03A **. Involving shredding, cutting, pulverising, granulating**
Prior to 1986 see A11-C03.
1986

A11-C04 **Surface treatment**
Including flame treatment.

A11-C04A **. Painting, printing**
Prior to 1970 see A11-C04.
1970

A11-C04B **. Metallising; coating with other materials, general**
Prior to 1970 see A11-C04.
1970

A11-C04B1 **.. Metallising**
Prior to 1986 see A11-C04B.
1986

A11-C04B2 **.. Coating with other materials**
Excluding A11-C04B1. Prior to 1986 see A11-C04B.
1986

A11-C04C **. Embossing**
Prior to 1977 see A11-C04.
1977

A11-C04D **. Chemical treatment**
Including etching. Prior to 1977 see A11-C04.
1977

A11-C04E **. Corona discharge, plasma treatment; irradiation**
Prior to 1986 see A11-C04.
1986

A11-C05 **Textile processes**
Excluding specific processes in A11-A:, A11-B: and A11-C:. Prior to 1970 no specific code was available. References may be found under A11-A, A11-B and A11-C:.
1970

A11-C05A **. Producing fabrics**
Prior to 1977 see A11-C05.
1977

A11-C05A1 **.. Melt blowing**
1994
Previous code(s): A11-C05A

A11-C05B **. Twisting, winding of fibres and yarns**
Prior to 1977 see A11-C05.
1977

A11-C05C **. Other processing of fibres and yarns**
Inc: mercerizing, reeling. Prior to 1977 see A11-C05.
1977

A11-C05C1 **.. Flash spinning**
1994
Previous code(s): A11-C05

A11-C06 **Ejection of mouldings; conveying, winding and storage of plastics articles**
Prior to 1977 see A11-C.
1977

A11-C07 **Waste treatment; pollution control**
Prior to 1977 see A11-C.
1977

A11-C **Other miscellaneous processes**
Including repair of articles (excluding retreading of tyres), sterilisation, wire insulation removal, cleaning of polymer handling/forming/ processing plant; excluding cleaning of polymerisation vessels for which see A10-G.

A12 POLYMER APPLICATIONS

Where the polymer use as an adhesive and/or coating applies to a specific use in any other section (A12-C: through A12-W:), then the appropriate code from that section only is applied e.g. for bottle coatings see A12-P06A only.

A12-A **ADHESIVES AND BINDERS**
Excluding sealants for which see A12-R08. For binders, when a specific use of the binder is given only that use is searchable.

A12-A **General adhesive applications**
i.e. unspecified compositions for general adhesive applications.

A12-A01 **Adhesive tape**
Excluding electrical insulation tape for which see A12-E03; including surgical tape.

A12-A01A **. Adhesive on a carrier (excluding tape)**
1994

A12-A02 **Binders for core moulds, earth consolidation**

A12-A03 **Abrasive paper, grinding wheels**
Including all abrasive compositions.

A12-A04 **Board, general**
Prior to 1970 see A12-A.
1970

A12-A04A **. Decorative laminate; decorative board**
Prior to 1977 see A12-A04.
1977

A12-A04B **. Chip-, particle- or fibre-board**
Prior to 1977 see A12-A04.
1977

A12-A04C **. Other cellulosic products**
Including plywood. Prior to 1977 see A12-A04.
1977

A12-A04D **. Laminates, otherwise unspecified**
2002

A12-A05 **Adhesive and binder compsns.**
Excluding A12-A02, A12-A03 and A12-A04+; this is only for general adhesive and binder applications. When a specific use is given, only that use is searchable. Prior to 1970 see A12-A.
1970

A12-A05A **. Natural polymer, natural rubber or diene rubber based**
Prior to 1970 see A12-A.
1970

A12-A05B **. Addition polymer based**
Excluding diene rubber. Prior to 1970 see A12-A.
1970

A12-A05B1 **.. Acrylic**
Prior to 1986 see A12-A05B.
1986

A12-A05B2 **.. Polyolefins**
Monoolefinic hydrocarbon; including ethylene-vinyl acetate copolymer. Prior to 1986 see A12-A05B.
1986

A12-A05B3 **.. Vinyl halide and/or vinyl carboxylate (co)polymers**
Excluding ethylene-vinyl acetate copolymer for which see A12-A05B2. Prior to 1986 see A12-A05B.
1986

A12-A05C **. Epoxy resin based**
Prior to 1970 see A12-A.
1970

A12-A05D **. Aminoplast or phenoplast based**
Prior to 1977 see A12-A05.
1977

A12-A05E **. Polyester based**
Prior to 1977 see A12-A05.
1977

A12-A05F **. Polyurethane or polyurea based; other resins from isocyanates**
Prior to 1977 see A12-A05.
1977

A12-B **COATINGS AND PAINTS**
Excluding textile finishes for which see A12-G+; including polishes. The codes A12-B01+ are applied when the substrate is specified. The codes A12-B01, A12-B01A and A12-B01B are applied when neither the polymer nor the substrate is specified. Search only the substrate on which the coating is directly applied.

A12-B01 **General**

A12-B01A **. Emulsion paints, latex paints, water based lacquers, general**
Prior to 1970 see A12-B01.
1970

A12-B01B **. Varnishes, solvent-based lacquers, general**
Prior to 1970 see A12-B01.
1970

A12-B01C . **Inorganic polymers, including silicon polymers; diene or polyene polymers**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01D . **Natural polymers**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01E . **Acrylic polymers**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01F . **Vinyl carboxylate or halogen containing addition polymers**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01G . **Other addition polymers**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01H . **Polyesters**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01J . **Phenoplasts or aminoplasts**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01K . **Polyurethanes**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01L . **Epoxy resins**
Prior to 1977 see A12-B01, A12-B01A and A12-B01B appropriately.
1977

A12-B01V . **Other condensation polymers**
Prior to 2006 see A12-B01X.
2006

A12-B01W . **General addition polymer coating**
Indexed for the generic case or when three or more codes are required from the A12-B01+ hierarchy.
1994
Previous code(s): A12-B01+

A12-B01X . **General condensation polymer coating**
Indexed for the generic case and where three or more codes are required from the A12-B01+ hierarchy.
1994
Previous code(s): A12-B01+

A12-B02 **Fibres, cloth and felts**
Excluding finishes for which see A12-G: section or A12-S05S.

A12-B02A . **Leathercloth, synthetic leather**
Prior to 1970 see A12-B02.
1970

A12-B02B . **Polymer-bonded non-woven fabrics**
Prior to 1970 see A12-B02.
1970

A12-B03 **Paper, cardboard**
Excluding for use in paper making for which see A12-W06+.

A12-B03A . **Compositions**
Prior to 1970 see A12-B03.
1970

A12-B04 **On metal**
Excluding on electric wire, for which see A12-E02+.

A12-B04A . **Compositions**
Applied from the start of CPI (1970) to the end of 1976 and was then discontinued. Prior to 1970 see A12-B04.
1970-1976

A12-B04B . **Produced by specific techniques**
Including non-resinous pretreatment. Prior to 1977 see A12-B04A.
1977

A12-B04C . **Using natural, inorganic or condensation resins**
Prior to 1977 see A12-B04A.
1977

A12-B04D . **Using acrylic resins**
Prior to 1977 see A12-B04A.
1977

A12-B04E . **Using vinyl carboxylate or halogen containing addition polymers**
Prior to 1977 see A12-B04A.
1977

A12-B04F . **Using other addition polymers**
Prior to 1977 see A12-B04A.
1977

A12-B05 **On glass; glass fibre**
Excluding glass fibre reinforced for which see A12-S08+; Including on glass optical fibre (with A12-L03A). Prior to 1970 see A12-B.
1970

A12-B06 **On natural leather**
Prior to 1970 see A12-B.
1970

A12-B07 **On polymers**
Excluding on fibres for which see A12-B02+ or A12-G+. Prior to 1970 see A12-B.
1970

A12-B07A . **On films**
Optionally laminated. Prior to 1977 see A12-B07.
1977

A12-B07B . **On foams**
Prior to 1977 see A12-B07.
1977

A12-B07C . **On tubes, cables or other profiles**
Prior to 1977 see A12-B07.
1977

A12-B08 **On other inorganic material**
e.g. concrete, ceramics, stone. Prior to 1977 see A12-B.
1977

A12-B09 **On wood or other plant derived material**
Including seeds, coal dust. Prior to 1977 see A12-B.
1977

A12-B **Other specific coatings**
e.g. on foods, medical tablets.

A12-C CLOTHING AND FOOTWEAR

A12-C00C **Clothing general**
2002

A12-C01 **Foamback fabrics and garments**

A12-C02 **Safety clothing**
Excluding footwear; including sunglasses.

A12-C02A . **Gloves**
1994
Previous code(s): A12-C02

A12-C02B . **Helmets**
1994
Previous code(s): A12-C02

A12-C02C . **Protective masks**
Includes surgical/medical masks (with A12-V03C1).
2022

A12-C03 **Other clothing**
Including (slide)fasteners.

A12-C04 **Footwear**
Including laces; excluding socks, hosiery, for which see A12-C03.

A12-D HOUSEHOLD AND OFFICE FITTINGS OR ACCESSORIES

A12-D00D **General household/office application**
Indexed for the generic case and where three or more codes are required from the A12-D+ hierarchy.
1994

A12-D01 **Furniture and soft furnishings**
Including mattresses, bedding, draperies.

A12-D02 **Carpets and (foam) underlays**

A12-D03 **Kitchenware**
Including brushes, boil-in-bag food packs, cooking utensils.

A12-D04 **Other domestic**
e.g. refrigerators.

A12-D05 **Office**

A12-D05A . **Pressure sensitive materials**
e.g. carbon(-less) paper, typewriter ribbon. Prior to 1986 see A12-D05.
1986

A12-D05B . **Writing devices and inks**
Prior to 1986 see A12-D05.
1986

A12-D **Others**
e.g. credit cards.

A12-E ELECTRICAL ENGINEERING

A12-E01 **General**
Including general insulating compositions.

A12-E01A . **Electromagnetic screening**
1994
Previous code(s): A12-E+

A12-E02 **Cable and wire insulation or coating**

A12-E02A . **Compositions**
Prior to 1970 see A12-E02.
1970

A12-E02B . **Fabrication, treatment**
Prior to 1986 see A12-E02.
1986

A12-E03 **Insulation tape**

A12-E04 **Potting compounds, encapsulating compositions and like insulation**

A12-E05 **Insulating cases and bodies (moulded or cast)**

A12-E06 **Batteries, accumulators, fuel cells**
Prior to 1970 see A12-E and A12-E05 appropriately.
1970

A12-E06A **. Electrodes**
Prior to 1986 see A12-E06.
1986

A12-E06B **. Separators, membranes**
Prior to 1986 see A12-E06.
1986

A12-E06C **. Casings, seals, sealants**
Prior to 1986 see A12-E06.
1986

A12-E07 **Circuit components**
Prior to 1970 see A12-E.
1970

A12-E07A **. Printed circuits**
Prior to 1977 see A12-E07.
1977

A12-E07B **. Capacitors**
Prior to 1977 see A12-E07.
1977

A12-E07C **. Semiconductor devices, integrated circuits; resistors**
Prior to 1977 see A12-E07.
1977

A12-E07C1 **.. Associated processing auxiliaries**
e.g. developers (with A12-L+), polishing compositions (with A12-A3), tape automated bonding (TAB) compositions.
2011

A12-E08 **Magnetic**
e.g. magnets. Prior to 1970 see A12-E.
1970

A12-E08A **. Magnetic recording (compositions)**
Prior to 1986 see A12-E08.
1986

A12-E08A1 **.. Magnetic tape**
Including audio and video. Prior to 1986 see A12-E08.
1986

A12-E08A2 **.. Other magnetic recording**
Including heads, (floppy) discs, magneto-(optical). Prior to 1986 see A12-E08.
1986

A12-E08B **. Motors, coils, transformers, generators**
Prior to 1986 see A12-E08.
1986

A12-E09 **Electrolytic, electrochemical, or electrophoresis cells**
Including parts thereof e.g. electrodes. Prior to 1977 see A12-E.
1977

A12-E10 **Heat and temperature uses**
e.g. temperature measurement, heating materials, heat sensitive materials. Prior to 1977 see A12-E.
1977

A12-E11 **Electro-optical**
Excluding liquid crystal (devices) for which see A12-L03B; e.g. lamps. Prior to 1977 see A12-E.
1977

A12-E11A **. Electrochromic displays including cathode ray tubes; photodiodes (LED)**
Prior to 1986 see A12-E11.
1986

A12-E11B **. Photoelectric cells**
Including solar cells. Prior to 1986 see A12-E11.
1986

A12-E11C **. Electroluminescent devices**
2002

A12-E12 **Electroacoustic**
e.g. radios, loudspeakers, including transducers. Prior to 1977 see A12-E.
1977

A12-E13 **Instrumentation; measuring; testing**
Including probes, sensors, detectors. Prior to 1986 see A12-E.
1986

A12-E14 **Electrodes**
Excluding A12-E06A and A12-E09. Prior to 1986 see A12-E.
1986

A12-E15 **Piezoelectric compositions/devices**
Prior to 1986 see A12-E.
1986

A12-E16 **Superconductor application**
1994
Previous code(s): A12-E

A12-E **Other electrical uses**
Including aerials, electrical waveguides, electric bus bars.

A12-F **FANCY GOODS, GAMES, SPORTS EQUIPMENT, TOYS, EDUCATIONAL DEVICES (OTHERS)**
Includes fancy goods, toys, educational devices, training, teaching, models, globes.

A12-F01 **Sports and games equipment**
Including camping, board games, fishing lines. Prior to 1970 see A12-F.
1970

A12-F01A . **Sports areas**
Including courts, mats, pools. Prior to 1986 see A12-F01.
1986

A12-F01B . **Balls, racquets, clubs, bats**
Prior to 1986 see A12-F01.
1986

A12-F **Others**
Including fancy goods, toys: Educational devices, training, teaching, models, globes.

A12-G **FIBRE AND TEXTILE POLYMERIC FINISHES**

A12-G00G **General or unspecified fibre and textile polymeric finishes**
2002

A12-G01 **Flame-retardant**
See also A12-S05R for non-resinous finishes.

A12-G02 **Shrink-, crease-resistant, non-iron**
See also A12-S05R for non-resinous finishes. Prior to 1970 see A12-G.
1970

A12-G03 **Water-, oil-, soil-proofing**
See also A12-S05R for non-resinous finishes. Prior to 1970 see A12-G.
1970

A12-G04 **Sizes**
See also A12-S05R for non-resinous finishes.
1994
Previous code(s): A12-G

A12-G **Others**
Excluding A12-S05S. See also A12-S05T for non-resinous finishes.

A12-H **MECHANICAL ENGINEERING**

A12-H00H **General mechanical engineering**
Indexed for the generic case and where three or more codes are required from the A12-H+ hierarchy.
1994

A12-H01 **(Conveyor) belts**
Including systems.

A12-H02 **Hose, tubing, pipes**

A12-H02A . **Unreinforced**
Prior to 1970 see A12-H02.
1970

A12-H02B . **Reinforced**
See also A12-S08+. Prior to 1970 see A12-H02.
1970

A12-H02C . **Fittings**
e.g. flanges, connectors. Prior to 1977 see A12-H02, A12-H02A and A12-H02B appropriately.
1977

A12-H02D . **Coatings, linings**
Including polymer laminates and coextrudates. Prior to 1977 see A12-H02, A12-H02A, and A12-H02B appropriately.
1977

A12-H02D1 .. **Lagging, thermal insulation**
Prior to 1986 see A12-H02D
1986

A12-H03 **Gears, bearing surfaces and similar joints**

A12-H04 **Filters**
Excluding (semi)-permeable membranes (ultrafilters) for which see A12-W11A; includes cigarette filters.

A12-H05 **Moulds of rubber or plastics**
Excluding core moulds for which see A12-A02.

A12-H06 **Hinges**

A12-H07 **Valves, diaphragms**
Prior to 1970 see A12-H.
1970

A12-H08 **Seals**
Excluding A12-H07; sealants for which see A12-R08 and closures for which see A12-P03. Prior to 1970 see A12-H.
1970

A12-H09 **Shock absorbers**
Prior to 1977 see A12-H.
1977

A12-H10 **Brake material; materials for increasing or decreasing friction; abrasion reducers**
Excluding bearings for which see A12-H03. Prior to 1977 see A12-H.
1977

A12-H11 **Rolls, rollers**
Prior to 1986 see A12-H.
1986

A12-H12 **Fasteners**
Including screws, nuts, clamps, (anchor) bolts. Prior to 1986 see A12-H.
1986

A12-H **Others**
e.g. tools, pumps, fan blades.

A12-L **(ELECTRO)PHOTOGRAPHY, LABORATORY, OPTICAL**
(Electro)photographic materials include those sensitive to (UV) light or ionising radiation.

A12-L00L **General optical**
2002

A12-L01 **Photographic (film) support; binders**

A12-L02 **Other photographic materials, processes**

A12-L02A **. Apparatus**
Including lenses; e.g. spectacle lenses (with 12-V02A), but excluding contact lenses for which see A12-V02A only. Prior to 1970 see A12-L02.
1970

A12-L02B **. Compositions for making printing plates or electrical devices**
Applied from the start of 1977 to the end of 1985 and was then discontinued. Prior to 1977 see A12-L02.
1977-1985

A12-L02B1 **.. Printing plates**
Prior to 1986 see A12-L02B.
1986

A12-L02B2 **.. Electrical devices**
e.g. printed circuits. Prior to 1986 see A12-L02B.
1986

A12-L02C **. Radiation sensitive compositions containing unsaturated monomers**
Excluding A12-L02B1 and A12-L02B2. Prior to 1977 see A12-L02.
1977

A12-L02D **. Radiation sensitive compositions containing unsaturated polymers**
Excluding A12-L02B1 and A12-L02B2. Prior to 1977 see A12-L02.
1977

A12-L02E **. Other radiation sensitive polymer compositions**
Excluding A12-L02B1 and A12-L02B2. Prior to 1977 see A12-L02.
1977

A12-L02F **. Compositions containing non-radiation sensitive polymer**
Excluding A12-L01; including mordants, acceptor layers, developers. Prior to 1986 see A12-L02.
1986

A12-L03 **Other optical uses**
i.e. non-photographic; excluding electro-optical for which see A12-E11+; e.g. spectacle frames, lamp shades.

A12-L03A **. Optical fibres, cables**
Including coatings, adhesives etc. Prior to 1986 see A12-L03.
1986

A12-L03B **. Liquid crystal (devices)**
Prior to 1986 see the combination of codes A12-L03 and A12-E11.
1986

A12-L03C **. Optically readable records**
Including laser recording devices, optical discs e.g. compact discs. Prior to 1986 see A12-L03.
1986

A12-L03D **. Optical filters**
1994
Previous code(s): A12-L03

A12-L04 **Laboratory**

A12-L04A **. Chromatography**
1994
Previous code(s): A12-L04

A12-L04B **. Sensors/measuring**
Excluding A12-E13.
1994
Previous code(s): A12-L04

A12-L05 **Electrophotography and thermography**
Prior to 1970 see A12-L01, A12-L02 and A12-L appropriately.
1970

A12-L05A **. Thermography**
Prior to 1977 see A12-L05.
1977

A12-L05B **. Photoconductive polymers**
Prior to 1977 see A12-L05.
1977

A12-L05C **. Electrophotographic toners and apparatus**
Applied from the start of 1977 to the end of 1985 and was then discontinued. Prior to 1977 see A12-L05.
1977-1985

A12-L05C1 .. **Equipment**
Prior to 1986 see A12-L05C.
1986

A12-L05C2 .. **Toners and carriers**
Prior to 1986 see A12-L05C.
1986

A12-L05D . **Binders and substrates**
Prior to 1977 see A12-L05.
1977

A12-L **Others**

A12-M **ION EXCHANGE RESINS, POLYELECTROLYTES**

A12-M **General ion exchange resins**

A12-M01 **Acrylic polyelectrolytes, flocculants**
Prior to 1977 see A12-M
1977

A12-M02 **Other polyelectrolytes, flocculants**
Prior to 1977 see A12-M.
1977

A12-M03 **Ion exchange resins from aromatic olefinic (optionally substituted) (co)polymers**
Prior to 1977 see A12-M.
1977

A12-M04 **Ion exchange resins from other addition (co)polymers**
Excluding A12-M03. Prior to 1977 see A12-M.
1977

A12-M05 **Ion exchange resins from other polymers; chelate resins**
Prior to 1977 see A12-M.
1977

A12-P **PACKAGING**

A12-P01 **General**

A12-P01A . **(Wrapping) films and film laminates**
Optionally containing non-polymeric layers. Prior to 1986 see A12-P01.
1986

A12-P01B . **General container**
Indexed where three or more codes are required from the A12-P+ hierarchy.
1994
Previous code(s): A12-P01

A12-P02 **Bags and sacks**
Excluding blood bags for which see A12-V03B, handbags for which see A12-T.

A12-P03 **Closures**

A12-P04 **Shrink packages**

A12-P05 **Tanks, drums**
Including linings.

A12-P06 **Other containers**

A12-P06A . **Bottles, aerosol containers**
Prior to 1970 see A12-P06.
1970

A12-P06B . **Boxes, cartons, crates, rigid packs**
Prior to 1970 see A12-P06.
1970

A12-P06C . **Collapsible tubes, sachets, blister packs**
Prior to 1970 see A12-P06.
1970

A12-P07 **Rope, cord, net, webbing, strapping**

A12-P **Other packaging accessories**
e.g. handles, labels.

A12-R **BUILDING, CIVIL ENGINEERING**

A12-R01 **General**

A12-R01A . **Concrete, cement, gypsum, mortar compositions and boards**
Prior to 1986 see A12-R01.
1986

A12-R02 **Fittings**
i.e. fixtures e.g. baths, guttering.

A12-R02A . **Windows, doors**
Including frames, seals; excluding A12-R04. Prior to 1986 see A12-R02.
1986

A12-R02B . **Solar panels, collectors, heat storage devices**
Non-electrical. Prior to 1986 see the combination of codes A12-R02 and A12-H for solar panels/collectors; and A12-R02 for heat storage devices.
1986

A12-R03 **Flooring**

A12-R04 **Glazing, roof lighting**
e.g. skylights.

A12-R05 **Roofing**
Excluding roof lighting.

A12-R06 **Thermal and/or acoustic insulation; honeycomb structures**
Including all references. The code is applicable to non-specific uses. For specific uses in building see additionally the appropriate code. For specific uses in transport see A12-T04B and for pipe lagging see A12-H02D1. For other non-building use, see that use only e.g. thermally insulated bottles see A12-P06A.

A12-R07 **Walls, wall coverings and ceilings**

A12-R08 **Sealants, grouts, caulking compositions**
The code is applicable to non-specific uses. For specific use in building see additionally the appropriate code e.g. for window seals see A12-R02A and A12-R08. For non-building use see that use only e.g. in sealing batteries see A12-E06+ only.

A12-R09 **Compositions for roads, aircraft runways, paving**

A12-R **Others**
e.g. road signs and road paints.

A12-S **'SEMI-FINISHED' MATERIALS**

A12-S01 **Expanded polystyrene**
Including uses. The codes A04-C02+ are not additionally searchable.

A12-S01A **. Compositions and foaming processes**
A11-B06+ is additionally coded for foaming processes. Prior to 1970 see A12-S01.
1970

A12-S02 **Expanded polyurethane, general**
The codes A05-G+ are not additionally searchable.

A12-S02A **. Foam-in-place, in-situ**
Prior to 1970 see A12-S02.
1970

A12-S02B **. Compositions and general foam-forming**
Applied from the start of 1970 to the end of 1976 and was then discontinued. Prior to 1970 see A12-S02.
1970-1976

A12-S02C **. Foaming processes**
Excluding A12-S02A. A11-B06+ is additionally coded. Prior to 1977 see A12-S02, A12-S02A and A12-S02B appropriately.
1977

A12-S02D **. Polyetherurethanes**
Prior to 1977 see A12-S02, A12-S02A and A12-S02B appropriately.
1977

A12-S02E **. Other specific polyurethanes**
Prior to 1977 see A12-S02, A12-S02A and A12-S02B appropriately.
1977

A12-S02F **. Building, civil engineering, insulation (acoustic and thermal)**
Prior to 1986 see A12-S02 to A12-S02E appropriately.
1986

A12-S03 **Expanded thermosets**
e.g. phenoplasts.

A12-S04 **Expanded polymers or general**
Excluding A12-S01+ to A12-S03. Including uses other than A12-S04B to A12-S04E.

A12-S04A **. Foamable, expandable compositions, general**
Prior to 1970 see A12-S04.
1970

A12-S04A1 **.. Foaming processes**
A11-B06+ is additionally coded. Prior to 1977 see A12-S04A.
1977

A12-S04A2 **.. Polyolefin compositions and foaming processes**
Prior to 1977 see A12-S04A.
1977

A12-S04A3 **.. Other addition and condensation resins compositions and foaming processes**
Excluding A12-S01+ to A12-S03; e.g. polyisocyanurates. Prior to 1977 see A12-S04A.
1977

A12-S04B **. Building, civil engineering, insulation (acoustic and thermal)**
Excluding A12-S04C and A12-S04D. Prior to 1977 see A12-S04 and A12-S04A appropriately.
1977

A12-S04C **. Packaging; agriculture**
Prior to 1977 see A12-S04 and A12-S04A appropriately.
1977

A12-S04D **. Fabrics, furniture, upholstery, furnishings, including decorative panels; toys; sports goods**
Prior to 1977 see A12-S04 and A12-S04A appropriately.
1977

A12-S04E . **Integral skin foams, floats, cables, electrical insulation**
Prior to 1977 see A12-S04 and A12-S04A appropriately.
1977

A12-S05 **Fibres and textiles**
Applied from the start of Plasdoc to the end of 1969 and as then discontinued.
1966-1969

A12-S05A . **Non-circular, hollow, tapered fibres**
Prior to 1970 see A12-S05.
1970

A12-S05B . **Conjugate fibres**
e.g. sea-island, side-by-side, sheath-core. Prior to 1970 see A12-S05.
1970

A12-S05C . **Textured fibres**
e.g. crimped, bulked. Prior to 1970 see A12-S05.
1970

A12-S05D . **Elastic fibres**
e.g. spandex. Prior to 1970 see A12-S05.
1970

A12-S05E . **Other fibres**
e.g. staple, monofils, fancy yarns. Prior to 1970 see A12-S05.
1970

A12-S05F . **Woven fabrics**
Prior to 1970 see A12-S05.
1970

A12-S05G . **Non-woven fabrics; felts**
Prior to 1970 see A12-S05.
1970

A12-S05H . **Knitted fabrics**
Prior to 1970 see A12-S05.
1970

A12-S05J . **Other fabrics**
e.g. net, pile, tufted. Prior to 1970 see A12-S05.
1970

A12-S05K . **Fibre forming compositions**
Prior to 1970 see A12-S05.
1970

A12-S05L . **Production of fibres**
Including drawing; see also A11-B02+, A11-B15+ and A11-C05+. Prior to 1970 see A12-S05.
1970

A12-S05M . **Treatment of fibres, textiles, general**
Prior to 1970 see A12-S05.
1970

A12-S05N . **Dyeing polyesters, polyamides or cellulosics**
Prior to 1977 see A12-S05N. See also A11-A01 to A11-A01B appropriately.
1977

A12-S05P . **Dyeing other substrates**
Excluding A12-S05N. Prior to 1977 see A12-S05M. See also A11-A01 to A11-A01B appropriately.
1977

A12-S05Q . **Printing**
Prior to 1977 see A12-S05M. See also A11-C04A.
1977

A12-S05R . **Repellent, flame proofing, crease-resistant, pill resistant and durable press treatments (non-resinous)**
e.g. water, oil, insect. Prior to 1977 see A12-S05M.
1977

A12-S05S . **Antistatic, surfactant, softener or lubricant treatments**
i.e. both resinous and non-resinous finishes. Prior to 1977 see A12-S05M.
1977

A12-S05T . **Other chemical treatments**
Non-resinous; including carbon fibre production. Prior to 1977 see A12-S05M
1977

A12-S05U . **Physical and mechanical processes**
Prior to 1977 see A12-S05M.
1977

A12-S05X . **General fibre**
Indexed for the generic case.
1994
Previous code(s): A12-S05

A12-S06 **Films**
i.e. self-supporting.

A12-S06A . **Film production**
Including tubular. Prior to 1970 see A12-S06.
1970

A12-S06B . **Film treatment**
Includes welding, chemical etching and surface treatment. Prior to 1970 see A12-S06.
1970

A12-S06C . **Having a laminated structure**
e.g. with metal foils. Prior to 1977 see A12-S06, A12-S06A and A12-S06B appropriately.
1977

A12-S06C1 .. **Of polymeric films only**
Prior to 1986 see A12-S06C.
1986

A12-S06D . **Made from mixtures of polymers**
Prior to 1977 see A12-S06, A12-S06A and A12-S06B appropriately.
1977

A12-S07 **Sheet**
Excluding reinforced, for which see A12-S08A.

A12-S07A . **Laminated**
Prior to 1970 see A12-S07.
1970

A12-S08 **Reinforced plastics**
See also A12-H02B.

A12-S08A . **Sheets, panels, laminates**
Prior to 1970 see A12-S08.
1970

A12-S08B . **Glass fibre reinforced**
Excluding A12-S08A; do not search A08-R04 unless novelty in glass fibre. Prior to 1970 see A12-S08.
1970

A12-S08C . **Other specific reinforcing materials**
e.g. carbon fibre. Prior to 1977 see A12-S08, A12-S08A and A12-S08B appropriately.
1977

A12-S08D . **Uses**
Prior to 1977 see A12-S08, A12-S08A and A12-S08B appropriately.
1977

A12-S08D1 .. **Mechanical engineering**
Prior to 1986 see A12-S08D.
1986

A12-S08D2 .. **Electrical engineering**
Prior to 1986 see A12-S08D.
1986

A12-S08D3 .. **Transport; military**
Prior to 1986 see A12-S08D.
1986

A12-S08E . **Thermoplastic reinforced composites**
Prior to 1986 see A12-S08 to A12-S08D appropriately.
1986

A12-S08F . **Fabric reinforced**
i.e. woven, non-woven or knitted of e.g. glass, aramid. Prior to 1986 see A12-S08 to A12-S08D appropriately.
1986

A12-S09 **Powders, granules**
Prior to 1977 see A12-S.
1977

A12-S09A . **Formed by mechanical treatment**
e.g. cutting, grinding. Prior to 1986 see A12-S09.
1986

A12-S10 **Plastisols**
Prior to 1986 see A12-S.
1986

A12-S **Other semi-finished materials**
e.g. solutions; bulk-, dough-, sheet- and thick- moulding compounds (BMC, DMC, SMC, TMC), micro-gels.

A12-T **TRANSPORT**

A12-T01 **Tyres and tracks, inner tubes**

A12-T01A . **Tyre-building equipment**
Prior to 1970 see A12-T01.
1970

A12-T01B . **Tyre design, studs**
e.g. tread. Prior to 1977 see A12-T01.
1977

A12-T01C . **Tyre cord (polymeric only); tyre cord adhesives (polymeric only)**
Prior to 1977 see A12-T01.
1977

A12-T01D . **Retreading, scrap recovery, disposal and use of old tyres**
Prior to 1977 see A12-T01.
1977

A12-T02 **Vehicle shells**
e.g. boat hulls.

A12-T03 **Other parts for rockets, space vehicles, jet engines and armaments**
Excluding A12-T01+ and A12-T02.

A12-T03A . **Fuels, explosives**
Prior to 1970 see A12-T03.
1970

A12-T03B . **Petroleum fuel additives**
Prior to 1977 see A12-T03A.
1977

A12-T03C . **Propellants, rocket fuels**
Prior to 1977 see A12-T03A.
1977

A12-T03D . **Military applications**
1994
Previous code(s): A12-T03

A12-T03D1 **.. Military applications (offensive)**
e.g. weapons.
1994

A12-T03D2 **.. Military applications (defensive)**
e.g. body armour (with A12-C02).
1994

A12-T04 **Other vehicle parts and accessories**

A12-T04A **. Optical**
Prior to 1977 see A12-T04.
1977

A12-T04B **. Crash pads (excluding bumpers), fascia, insulation (acoustic and thermal), upholstery**
Prior to 1977 see A12-T04.
1977

A12-T04C **. Engine systems and associated components; electrical**
Excluding jet engines; e.g. exhaust systems, carburettors, gaskets, propeller shafts. Prior to 1986 see A12-T04.
1986

A12-T04D **. Other moulded parts, fittings**
Including bumpers. Prior to 1986 see A12-T04.
1986

A12-T04E **. Safety devices**
1994
Previous code(s): A12-T04

A12-T05 **Vehicle coatings, paints**
Prior to 1986 see A12-T.
1986

A12-T **Others**
e.g. pallets, travel goods, buoys.

A12-V **MEDICAL, DENTAL, COSMETICS AND VETERINARY**

A12-V00V **Medical general**
2002

A12-V01 **Medicines, pharmaceuticals**
Prior to 1970 see A12-V.
1970

A12-V02 **Prostheses**
e.g. artificial blood vessels. Prior to 1970 see A12-V.
1970

A12-V02A **. Optical**
e.g. contact lenses; for spectacle lenses see A12-L02A, in addition; for spectacle frames see A12-L03. Prior to 1986 see A12-V02.
1986

A12-V02B **. Dental**
Including fillings, adhesives. Prior to 1986 see A12-V02.
1986

A12-V03 **Equipment, splints, sutures**
Prior to 1970 see A12-V.
1970

A12-V03A **. Dressings; bandages; tampons; diapers**
Prior to 1977 see A12-V03.
1977

A12-V03B **. Respirators; oxygenating devices; blood handling apparatus and devices**
E.g. catheters. Prior to 1977 see A12-V03.
1977

A12-V03B1 **.. Birth control devices**
2006
Prior to 2006 see A12-V03B

A12-V03C **. Dental, sterilisation and hygiene; testing, diagnosis and pathology**
Prior to 1977 see A12-V01, A12-V02, A12-V03 and A12-V appropriately.
1977-1985

A12-V03C1 **.. Dental; sterilisation and hygiene**
e.g. surgical gowns, masks and sanitizers. Prior to 1986 see A12-V03C.
1986

A12-V03C2 **.. Testing, diagnosis, pathology**
Including medical blood testing (with A12-V03B). Prior to 1986, see A12-V03C.
1986

A12-V03D **. Medical or surgical instrumentation and equipment**
Excluding A12-V03B, A12-V03C1 and A12-V03C2. Prior to 1986 see A12-V03.
1986

A12-V04 **Cosmetics, toilet requisites**
Including razor blades, wigs. Prior to 1970 see A12-V.
1970

A12-V04A **. Hair requisites**
e.g. shampoo, dyes, gels. Prior to 1986 see A12-V04.
1986

A12-V04B **. Dental**
e.g. toothpaste, dental floss. Prior to 1986 see A12-V04.
1986

A12-V04C . **Skin requisites**
e.g. barrier creams, lotions, powders etc; including nail varnish, lipstick. Prior to 1986 see A12-V04.
1986

A12-V05 **Tissue engineering, stem cell culture**
2024

A12-V **Others**

A12-W **OTHER APPLICATIONS**
Excluding A12-A: to A12-V:.

A12-W01 **Gramophone records**

A12-W01A . **Video discs**
Prior to 1986 see A12-W01.
1986

A12-W02 **Lubricants and functional fluids**
Including hydraulic fluids.

A12-W02A . **Polymeric additives**
Prior to 1970 see A12-W02.
1970

A12-W03 **Advertising and display**

A12-W04 **Agriculture, horticulture**
Including animal husbandry.

A12-W04A . **Growing areas, containers**
Including greenhouses, cloches, agricultural film, plant pots, mulches. Prior to 1986 see A12-W04.
1986

A12-W04B . **Culture media**
Including fertilisers, soil improvers, seed coatings. Prior to 1986 see A12-W04.
1986

A12-W04C . **Protective chemicals**
Including bactericides, herbicides, fungicides, insecticides. Prior to 1986 see A12-W04.
1986

A12-W05 **Encapsulated articles**
Excluding electrical goods for which see A12-E04; including microcapsules.

A12-W06 **Paper compositions**
Excluding coatings for which see A12-B03+ and paper making machinery (e.g. belts, filters) for which see A12-H+.

A12-W06A . **From non-cellulosic polymeric film, pulp or fibre**
Prior to 1977 see A12-W06.
1977

A12-W06B . **Addition polymers**
Prior to 1977 see A12-W06.
1977

A12-W06C . **Condensation polymers**
Prior to 1977 see A12-W06.
1977

A12-W06D . **Natural polymers**
Excluding natural cellulose e.g. wood fibres. Prior to 1977 see A12-W06.
1977

A12-W07 **Printing; book binding**

A12-W07A . **Printing plates produced non-photographically**
Prior to 1970 see A12-W07.
1970

A12-W07B . **Lithographic printing plates produced (electro)photographically**
Prior to 1977 see A12-W07A.
1977

A12-W07C . **Other printing plates produced (electro)photographically**
Prior to 1977 see A12-W07A.
1977

A12-W07D . **Inks**
Prior to 1977 see A12-W07.
1977

A12-W07D1 .. **Inkjet inks**
2002

A12-W07E . **Dyes and pigments for inks**
Where dye/pigment is novelty. Prior to 1977 see A12-W07.
1977

A12-W07F . **Other printing equipment/processes**
e.g. equipment for book binding, printing blankets. Prior to 1977 see A12-W07.
1977

A12-W07F1 .. **Thermal transfer systems**
1994
Previous code(s): A12-W07F

A12-W07F2 .. **Printing substrates**
2007
Previous code(s): A12-W07F

A12-W08 **Musical instruments**

A12-W09 **Food**
Food packaging is also coded under A12-P+ from 2025. Prior to 1970, see A12-W.
1970

A12-W10 **Mining, oil wells**
Prior to 1970 see A12-W.
1970

A12-W10A . **Drilling mud or fluid**
Prior to 1986 see A12-W10.
1986

A12-W10B . **Well stimulation, flooding, recovery, fracturing**
Prior to 1986 see A12-W10.
1986

A12-W10C . **Cementing, plugging, lining, consolidation**
Prior to 1986 see A12-W10.
1986

A12-W11 **Chemical engineering, pollution control**
Prior to 1970 see A12-W.
1970

A12-W11A . **Reverse osmosis; semi-permeable membranes**
Including ultrafilters. Prior to 1977 see A12-W11.
1977

A12-W11B . **Enzyme containing compositions; catalysts**
Applied from the start of 1977 to the end of 1985 and was then discontinued. From the start of 1986 see A12-W11K and A12-W11L. Prior to 1977 see A12-W11.
1977-1985

A12-W11C . **Nuclear engineering**
Prior to 1977 see A12-W11.
1977

A12-W11D . **Adsorption other than with ion exchange resins**
e.g. in pollution control. Prior to 1977 see A12-W11.
1977

A12-W11E . **Pollution control using coagulants, flocculants or polyelectrolytes**
Prior to 1977 see A12-W11.
1977

A12-W11F . **Other pollution control**
Prior to 1977 see A12-W11.
1977

A12-W11G . **Heat exchangers, heat storage and heat transfer compositions, coolants, antifreeze**
Prior to 1986 see A12-W11 and A12-W12 appropriately.
1986

A12-W11H . **Polymer use in pigment/dye compositions of no other specified use**
Prior to 1986 see A12-W11.
1986

A12-W11J . **Water treatment (compositions); scale inhibition; corrosion prevention**
Including pollution control treatment. Prior to 1986 see A12-W11 and A12-W12 appropriately.
1986

A12-W11K . **Catalysts and supports**
Prior to 1986 see A12-W11B.
1986

A12-W11L . **(Immobilised) enzymes or microorganisms, microbiology**
Excluding detergents for which see A12-W12A or A12-W12B. Prior to 1986 see A12-W11B.
1986

A12-W12 **Miscellaneous compositions**
e.g. syntactic foams, fire-fighting. Prior to 1970 see A12-W.
1970

A12-W12A . **Detergents for fibres/fabrics**
Including softeners. Prior to 1977 see A12-W12.
1977

A12-W12B . **Cleaning compositions**
Excluding A12-W12A.
1977

A12-W12C . **Surfactants**
Excluding A12-W12A and A12-W12B. Prior to 1977 see A12-W12.
1977

A12-W12D . **Electroplating additives; fluxes, metallurgy, ceramic uses**
Applied from the start of 1977 to the end of 1985 and was then discontinued. Prior to 1977 see A12-W12.
1977-1985

A12-W12E . **Electroplating bath additives**
Prior to 1986 see A12-W12D.
1986

A12-W12F . **Metallurgy**
Including fluxes, metal passivation agents. Secondary uses of produced metal are not coded. Prior to 1986, see A12-W12D.
1986

A12-W12G . **Ceramics, refractory compsns.**
Prior to 1986 see A12-W12D.
1986

A12-W13 **Super absorbents**
2002

A12-W14 **Nanotechnology**
Excludes resists.
2007

A12-W15 **Controlled release**
2010

A12-W16 **Renewable energy**
2010

A12-W17 **Wearable technology**
Includes virtual reality.
2022

A12-W **Others**
e.g. coffins, watches.

A99-A **Patents with minimal polymer content**
2001

B: PHARMACEUTICALS

B01 Steroids
B02 Antibiotics *(Vaccines pre-1994, see B14-S11 from 1994)*
B03 Vitamins *(pre-2011, see B15 from 201101)*
B04 Natural Products (or Genetically Engineered), Polymers
B05 Miscellaneous
B06 Heterocyclics, Fused Ring
B07 Heterocyclics, Mononuclear
B08 Aromatics, Polycarbocyclic
B09 Alicyclics, Polycarbocyclic
B10 Aromatics and Cycloaliphatics (Mono- and Bicyclic only), Aliphatics
B11 Processes, Apparatus
B12 Diagnostics and Formulation Types *(Therapeutic, Pesticidal, Herbicidal pre-1994)*
B14 Pharmaceutical Activities
B15 Vitamins *(from 201101)*

B: PHARMACEUTICALS

The codes in this section have an initial letter B and apply only to Pharmaceuticals. For the corresponding Agricultural Chemicals codes the initial 'B' must be replaced by 'C' (before 1994). The notes referring to "B" codes apply equally to "C" codes in Agricultural Chemicals unless stated otherwise (before 1994). A compound is normally assigned only one code from sections B01 to B10 according to the priority rule of B01 before B02 etc.

Compounds of known structure are always coded according to chemical structure in B05 to B10 and B15. However, steroids, antibiotics, vitamins and natural products (and their derivatives) are coded respectively in B01, B02, B03/B15 and B04 unless stated otherwise (see B03/B15, B03-J, B03-K, B04-A07A, B04-A07E for exclusions).

The code commenced in 1963 for Pharmaceuticals (Farmdoc) and 1965 for Agricultural Chemicals (Agdoc).

B01 STEROIDS

This section covers all compounds containing the basic steroidal nucleus (cyclopentanophenanthrene ring), which may have other rings (carbocyclic or heterocyclic) fused onto it. Compounds which contain heteroatoms within the basic cyclopentanophenanthrene ring (e.g. azasteroids) are excluded. Homosteroids (containing extra carbon in the ring), norsteroids (missing one carbon in the ring) and secosteroids (bonds broken, e.g. vitamin D) are also excluded. Steroids of unknown structure are also coded under B04-B02D: (before 1994) or B04-J02 (after 1994). All groups listed include derivatives. Thus hydroxy includes ethers, esters and cyclic derivatives (linked via an oxygen atom to a steroid carbon atom). All the compound types listed may contain additional substituents, provided that they are not specified for an earlier occurring code.

Conventions used

1 Steroids containing thio-groups (e.g. mercapto or thione), are assigned the same code as the corresponding oxygen containing compounds.

2 17, 20 and 21 hydroxy include all cyclic derivatives linked via -O- to 17, 20 or 21, provided these are not linked via atoms other than O(S) to 17, 20 or 21 positions.

3 3, 17 and 20 ketone include oxime, hydrazone etc., hemi-ketal, ketal (including those cyclic derivatives which satisfy convention (2)).

4 In deciding precedence, the highest priority is given to the lowest number.

5 'Y' represents 2-4 carbon chain (including Z), but includes cyclic derivatives only when they satisfy conventions (2) or (3).

6 'Z' represents hydroxyacetyl or 1,2-di-hydroxyethyl (specific subset of Y).

B01-A	**1,3,5(10)-TRIENES**
B01-A01	**Estrones (3-ol, 17-one)**
B01-A02	**Estradiols (3,17-diol)**
B01-A03	**Others**
B01-B	**RING 'A' DIENES**
B01-B01	**Prednisones (3,11-dione; 17-ol; 17-Z)**
B01-B02	**Prednisolones (3-one; 11,17-diol; 17-Z)**
B01-B03	**Other 1,4-dienes**
B01-B04	**Others**

B01-C	**RING 'A' MONOENES**
B01-C01	**Cortisones (3,11-dione; 17-ol; 17-Z)**
B01-C02	**Cortisols (3-one; 11,17-diol; 17-Z)**
B01-C03	**17-hydroxylprogesterones (3-one; 17-acetyl)**
B01-C04	**Progesterones (3-one; 17-acetyl)**
B01-C05	**Testosterones (3-one; 17-ol)**
B01-C06	**Pregn(3 or 4)enes (17-Y)**
B01-C07	**Pregn(1 or 2)enes (17-Y)**
B01-C08	**Pregn(5(10) or 1(10))enes (17-Y)**
B01-C09	**Androst(3 or 4)enes**
B01-C10	**Androst(1 or 2)enes**
B01-C11	**Androst(5(10) or 1(10))enes**

B01-D	**SATURATED RING 'A'**
B01-D01	**Pregnanes (17-Y)** Including cardenolides and digoxin.
B01-D02	**Androstanes**

B01-E	**STEROIDS NO STRUCTURE**
B01-E	**Steroids (no structure)** Non-structural steroids other than steroid hormones, e.g. plant sterols. **2010**

B02 ANTIBIOTICS (Vaccines pre-1994, see B14-S11 from 1994)

Antibiotics are coded using the first letter of the parent antibiotic (where this is known or given), for example, dihydrostreptomycin is coded B02-S, chlortetracycline B02-T and adriamycin (doxorubicin) B02-D. Unnamed or general antibiotics are coded B02-Z.

Vaccines, anti-toxins used as vaccines etc. are coded B02-V02 (before 1994) and B14-S11+ (from 1994). "C" and "P" antibiotics including cephalosporins and penicillins are subdivided further. All antibiotics are coded in this section even if they are not being used for their antibiotic properties.

B02-C	**"C" ANTIBIOTICS, GENERAL**
B02-C	**General**
B02-C01	**"C" antibiotics other than cephalosporins** **1977**
B02-C02	**Ring modified cephalosporins** This code covers cephalosporins with no -(CH2)X (X=H or substituent) at 3-position, or two substituents at 7-position. **1977**
B02-C03	**Other 3-unsubstituted methyl, 7-monosubstituted cephalosporins** **1977**
B02-C04	**Other 7-monosubstituted cephalosporins** Including lactones. **1977**

B02-P	**"P" ANTIBIOTICS, GENERAL**
B02-P	**General** Includes penicillins with no 6-acetamide group.
B02-P01	**"P" antibiotics other than penicillins** **1977**
B02-P02	**6-acetamidopenicillins, alpha-substituted by N-atom** **1977**
B02-P03	**Other 6-acetamidopenicillins** **1977**
B02-P04	**Other penicillins** With beta-lactam ring with 6 position substituted by group other than acetamide **2012**

B02-V **"V" ANTIBIOTICS, VACCINES (PRE-1994)**

B02-V **General**
1963-1993

B02-V01 **"V" Antibiotics**
1986

B02-V02 **Vaccines**
Excluding interferon. The code B12-A06 for antiviral is not additionally searchable.
1986-1993
Now coded as: B14-S11+

B02-V03 **Interferon**
Not additionally searchable as polypeptide B04-C01+.
1986-1993
Now coded as: B04-H05+

B02-Z **"Z" ANTIBIOTICS, GENERAL**

B02-Z **General**

B02-Z01 **Z antibiotics general**
2022

B03 VITAMINS

From 2011 vitamins have been transferred to B15 codes. B03 codes remain valid and searchable for records prior to 2011. Each sub-group includes related compounds with similar activity and pro-vitamins. The following compounds, although having vitamin activity, are indexed under the appropriate chemical classification only: nicotinic acid (B07-D04+), pantothenic acid (B10-C04D), folic acid (B06-D09), choline (B10-A22), inositol (B10-E04A), biotin (B06-F03), p-aminobenzoic acid (B10-B02A), linoleic acid (B10-C04E2) and other unsaturated acids.

retired end 2010

B03-A **A and carotenoids**
now coded B15-A00+
retired end 2010

B03-B **B1 (thiamine)**
now coded B15-B01+
retired end 2010

B03-C **B2 (riboflavin)**
now coded B15-B02+
retired end 2010

B03-D **B6 (pyridoxine)**
now coded B15-B06+
retired end 2010

B03-E **B12 and cobalamine**
now coded B15-B12+
retired end 2010

B03-F **C (ascorbic acid)**
now coded B15-C00+
retired end 2010

B03-G **D (calciferol)**
now coded B15-D00+
retired end 2010

B03-H **E and tocopherols**
now coded B15-E00+
retired end 2010

B03-J **Vitamin K**
This code is applied only when a general term is used in a patent. Any specific compounds in this class are coded by structure only.
now coded B15-K00+
retired end 2010

B03-K **Vitamin P and others**
This code is applied only when a general term is used in a patent. Any specific compounds in this class are coded by structure only.
now coded B15-P00+
retired end 2010

B03-L **General**
now coded B15-Z00
retired end 2010

B04 NATURAL PRODUCTS (OR GENETICALLY ENGINEERED), POLYMERS

In general, natural products are coded according to their most descriptive feature (usually chemical), thus

(i) milk is coded B04-B04K only, and not also B04-B04G (gland extract) or B04-B04L (mammalian extract);

(ii) a polysaccharide obtained from a plant is coded B04-C02D only, and not also B04-A07F.

The following compounds and their derivatives are coded in B04 only and not also according to their chemical structure:- tropanes, scopolamine, quinine, quinidine, lysergic acid, morphine, yohimbanes, xanthines, rotenone, pyrethroids, gibberellins, nucleosides and nucleotides, prostaglandins. If a compound's structure or activity suggest it **may** be a natural product analogue it is coded in B04 and structurally. To distinguish between specifically genetically engineered products and those prepared by other methods, the E suffix (engineered) is appended to codes introduced from 1994 in the appropriate format. For example, Interleukin 6 prepared by exogenous gene expression in a host is coded B04-H02G0E. All codes which have genetically engineered equivalents are marked #.

B04-A	**ALKALOIDS, PLANT EXTRACTS**
B04-A01	**Belladonna** Including tropanes and scopolamines.
B04-A02	**Cinchona** Including quin(id)ines.
B04-A03	**Ergot** Including lysergic acid.
B04-A04	**Opium** Including morphines and morphinans from 198601 but excluding apomorphine.
B04-A05	**Rauwolfia** Including yohimbanes.
B04-A06	**Xanthines** i.e. 2,6-dioxopurines.
B04-A07	**Plant extracts general** **1963-1965**

B04-A07A . **Other alkaloids**
Applied only when a general term is used in a patent. Any specific compounds in this class are coded by structure only e.g. strychnine is coded B06-E05.
1965

B04-A07A1 .. **Vinca alkaloids**
Includes vincristine, vinblastine, vinorelbine and vindesine.
2010

B04-A07B . **Derris**
e.g. rotenone.
1965

B04-A07C . **Pyrethrins**
1965

B04-A07D . **Peat, straw, cereal, seeds, bran, whole plants, juice**
1965-1993
Now coded as: B04-A08, B04-A09

B04-A07D1 .. **Peat, humic acid**
1986-1993
Now coded as: B04-A09J

B04-A07D2 .. **Seeds, husks from seeds, seed meal, cereal, grain**
1986-1993
Now coded as: B04-A09F

B04-A07D3 .. **Wood shavings, bark, sawdust**
1986-1993
Now coded as: B04-A09G

B04-A07D4 .. **Grass, straw, hay, plant stems, sap produced by pressing**
Excluding B04-A07D3.
1986-1993
Now coded as: B04-A09H

B04-A07D5 .. **Whole plants, leaves, whole mushrooms, flowers, plants produced by tissue culture**
Excluding B04-A07D4. B11-A is also coded.
1986-1993
Now coded as: B04-A08+, B04-A09A, B04-A09B, B04-A09D

B04-A07E . **Glycosides, saponins**
This code is applied only when a general term is used in a patent. Any specific compounds in this class are coded by structure only, e.g. glycyrrhizin is coded B07-A02B. Includes steroidal saponins.
1965

B04-A07F . **Plant extract general**
1963-1993
Now coded as: B04-A10

B04-A07F1 .. **Mushrooms, toadstools extracts**
1986-1993
Now coded as: B04-A10A

B04-A07F2 .. **Other plant extracts**
1986-1993
Now coded as: B04-A10B+, B04-A09C

B04-A08 # **Plant divisions and whole plants general and other**
E suffix is appended to respective whole plant codes for transgenic plants. N.B. Plant cells and plant tissue are coded B04-F08.
1994
Previous code(s): B04-A07D

B04-A08A # . **Bryophytes**
e.g. liverworts and mosses.
1994
Previous code(s): B04-A07D5

B04-A08A1 # .. **Marchantiophyta (liverworts)**
2012

B04-A08A2 # .. **Bryophyta (mosses)**
2012

B04-A08A3 # .. **Anthocerotophyta (hornworts)**
2012

B04-A08B # . **Pteridophytes**
e.g. ferns.
1994
Previous code(s): B04-A07D5

B04-A08B1 # .. **Psilotopsida**
2012

B04-A08B2 # .. **Equisetopsida**
2012

B04-A08B3 # .. **Marattiopsida**
2012

B04-A08B4 # .. **Polypodiopsida**
2012

B04-A08C # . **Spermatophytes**
1994-2011
Previous code(s): B04-A07D5

B04-A08C1 # .. **Gymnosperms**
e.g. conifers.
1994-2011
Previous code(s): B04-A07D5, now coded as B04-A08F+

B04-A08C2 # .. **Angiosperms**
e.g. flowering plants, grass, dicotyledons and monocotyledons.
1994-2011
Previous code(s): B04-A07D5, now coded as B04-A08G+

B04-A08D # . **Fungi (higher)**
e.g. mushrooms, toadstools, but not unicellular or microscopic fungi.
1994
Previous code(s): B04-A07D5

B04-A08D1 # .. **Ascomycota**
2012

B04-A08D2 # .. **Basidiomycota**
2012

B04-A08F # . **Gymnosperms**
2012
Previous code(s): B04-A07D5, B04-A08C1

B04-A08F1 # .. **Pinophyta (conifers)**
2012

B04-A08F2 # .. **Ginkgophyta**
2012

B04-A08F3 # .. **Cycadophyta (cycads)**
2012

B04-A08F4 # .. **Gnetophyta**
2012

B04-A08G # . **Angiosperms**
2012
Previous code(s): B04-A07D5, B04-A08C2

B04-A08G1 # .. **Monocots**
2012

B04-A08G2 # .. **Dicots**
2012

B04-A09 # **Plant parts general and other**
Plant parts derived from specific plant species are additionally coded in B04-A08.
1994
Previous code(s): B04-A07D

B04-A09A # . **Leaves**
1994
Previous code(s): B04-A07D5

B04-A09B # . **Flowers and parts**
Excluding pollen.
1994
Previous code(s): B04-A07D5

B04-A09C # . **Pollen**
1994
Previous code(s): B04-A07F, B04-B04C2

B04-A09D # . **Roots**
1994
Previous code(s): B04-A07D5

B04-A09F # . **Seeds, seed husks, seed meal, cereal, grain, nuts, bran**
1994
Previous code(s): B04-A07D2

B04-A09G # . **Wood shaving, bark, sawdust**
1994
Previous code(s): B04-A07D3

B04-A09H # . **Straw, hay, stems, sap, plant resin**
includes propolis
1994
Previous code(s): B04-A07D4

B04-A09J # . **Peat, humic acid**
1994
Previous code(s): B04-A07D1

B04-A09K # . **Fruit**
2006
Previous code(s): B04-A09

B04-A10 # **Plant extracts general and other**
Plant extracts derived from specific plant species are additionally coded in B04-A08. When the use of "Chinese herbal medicine" is claimed this code is applied.
1994
Previous code(s): B04-A07F

B04-A10A # . **Fungal extracts**
e.g. mushrooms, toadstools, but not unicellular or microscopic fungi.
1994
Previous code(s): B04-A07F1

B04-A10B # . **Leaf extracts**
1994
Previous code(s): B04-A07F2

B04-A10C # . **Flower extracts and extracts from flower parts**
Excluding pollen.
1994
Previous code(s): B04-A07F2

B04-A10D # . **Pollen extract**
1994
Previous code(s): B04-A07F, B04-B04C2

B04-A10F # . **Root extracts**
1994
Previous code(s): B04-A07F2

B04-A10G # . **Seed, seed husk, seed meal, cereal, grain and nut extracts**
1994
Previous code(s): B04-A07F2

B04-A10H # . **Wood shaving, bark, sawdust extracts**
1994
Previous code(s): B04-A07F2

B04-A10J # . **Straw, hay, stem and sap extracts**
1994
Previous code(s): B04-A07F2

B04-A10K # . **Fruit extract**
2006
Previous code(s): B04-A10

B04-A98 **Patent with herbal composition**
2012

B04-A99 **Patent with hybrid plant**
2012

B04-B **ANIMAL, MICROBIOLOGICAL AND GENERAL EXTRACTS**

B04-B01 **Oils, fats general**
1963-1965

B04-B01A . **Halogenated oils, waxes, etc.**
1965

B04-B01B . **Fats, lanolin, lipids, glycolipids**
1965

B04-B01C . **Oils and waxes general**

B04-B01C1 .. **Vegetable oils and waxes**
e.g. sunflower, soy bean and cotton seed oil.
1986

B04-B01C2 .. **Animal oils and waxes**
e.g. spermaceti, cod liver oil, honeycomb and beeswax.
1986

B04-B01C3 .. **Mineral oils and waxes**
e.g. vaseline, petroleum liquid paraffin and synthetic oils.
1986

B04-B01D . **Other oil and wax derivatives**
Oils and waxes that are hydrogenated and/or modified by a polymer. May be applied in conjunction with codes from B04-B01C.
Previous code(s): B04-B01C
2010

B04-B02 **Microorganisms, hormones, enzymes general**
1963-1965

B04-B02A . **Gibberellins**
1965

B04-B02B . **Microorganisms general**
1965-1993
Now coded as: B04-F01

B04-B02B1 .. **Bacteria**
e.g. Staphylococcus, Bacillus, Rickettsia.
1986-1993
Now coded as: B04-F10+

B04-B02B2 .. **Fungi**
e.g. Candida, Aspergillus.
1986-1993
Now coded as: B04-F09+

B04-B02B3 .. **Algae**
e.g. Spirella.
1986-1993
Now coded as: B04-F08

B04-B02B4 .. **Viruses**
1986-1993
Now coded as: B04-F11

B04-B02B5 .. **Others**
e.g. Mycoplasma.
1986-1993
Now coded as: B04-F06, B04-F07, B04-F10A4

B04-B02C . **Enzymes general**
The code B04-B02C is used when the type of enzyme is unspecified. When specific enzymes are given then these are coded in B04-B02C1 to B04-B02C7 in preference to B04-B02C.
1965-1993
Now coded as: B04-L01

B04-B02C1 .. **Coenzymes**
1977-1993
Now coded as: B04-L02

B04-B02C2 .. **Oxidoreductases**
1977-1993
Now coded as: B04-L03+

B04-B02C3 .. **Hydrolases**
e.g. chymotrypsin, trypsin, papain, fibrinolysin, streptokinase, streptodorinase, collagenase, plasmin, plasminogen.
1977-1993
Now coded as: B04-L05+

B04-B02C4 .. **Transferases**
1986-1993
Now coded as: B04-L04+

B04-B02C5 .. **Lyases**
1986-1993
Now coded as: B04-L06

B04-B02C6 .. **Isomerases**
1986-1993
Now coded as: B04-L07

B04-B02C7 .. **Ligases (synthetases)**
1986-1993
Now coded as: B04-L08

B04-B02D . **Hormones and steroids general**
The code B12-G04 or B04-C01 is not additionally applied with B04-B02D2 to B04-B02D4 unless a structure is given in the patent.
1965-1993
Now coded as: B04-J01, B04-J02, B04-J03, B04-J04, B04-J05

B04-B02D1 **.. Steroidal hormones (no complete structure)**
1986-1993
Now coded as: B04-J02

B04-B02D2 **.. Pancreatic hormones**
1986-1993
Now coded as: B04-J03+

B04-B02D3 **.. Thyroid and parathyroid hormone**
e.g. calcitonin, thyrocalcitonin, parathyroid hormone and their derivatives.
1986-1993
Now coded as: B04-J04+

B04-B02D4 **.. Pituitary gland hormones**
e.g. neurohypophyseal, intermedin, chromophorotropic, melanocyte stimulating, melanophoric hormone, adreno-corticotropic hormone (ACTH) corticotropic, follicle stimulating (FSH), interstitial cell stimulating, prolactin, ammotrophin, somatotropin, thyroid stimulating, thyrotropic, thyrotropin, vasopressin, chorionic gonadotropin, luteinising, growth and their derivatives.
1986-1993
Now coded as: B04-J05+

B04-B02E **. Prostaglandins**
From 197501 prostaglandins are coded B04-B02E only, and no longer according to their chemical structure.
1975-1993
Now coded as: B04-H03+

B04-B03 **Nucleosides and nucleotides general**
Coenzymes which are nucleotides are also coded B04-B02C1 (before 1994) or B04-L02 (from 1994). Nucleosides and nucleotides containing xanthine bases are coded B04-B03+ and not B04-A06.
1965

B04-B03A **. Nucleosides**
e.g. adenosine, guanosine, inosine, cytidine, uridine, thymidine. From 2005 chemically modified nucleosides are coded B04-B03D.
1986

B04-B03B **. Nucleotides**
e.g. adenylic acid, cytidylic acid. From 2005 chemically modified nucleotides are coded B04-B03E.
1986

B04-B03C **. Oligonucleotides**
This code is applied whenever the term "Oligonucleotide" is used in a patent, or otherwise to chains of 3 to 6 nucleotide units.
1994
Previous code(s): B04-B04A1, B04-B03B

B04-B03D **. Modified nucleosides**
E.g. C in ring, open chain structure. Compounds where the only modification is a deoxyribose sugar are searched as nucleosides.
2005
Previous code: B04-B03A

B04-B03E **. Modified nucleotides**
E.g. C in ring, open chain structure. Compounds where the only modification is a deoxyribose sugar are searched as nucleotides.
2005
Previous code: B04-B03B

B04-B03F **. Modified oligonucleotides**
Compounds where the only modification is one or more deoxyribose sugars are searched as oligonucleotides. For the most general references only.
2018

B04-B03F1 **.. Capped modified oligonucleotides**
Oligonucleotide must be composed of 7 or fewer nucleobases, see B04-E: for associated capped codes when 8 bases or longer. Includes trinucleotide cap and trinucleotide mRNA cap, particularly those based on m7G (7-methylated-guanine) and analogs.
2024

B04-B03F2 **.. Other modified oligonucleotides**
Oligonucleotide must be composed of 7 or fewer nucleobases.
2024

B04-B04 **Animal extract general**
1963-1965

B04-B04A **. Proteins, nucleic acids, cells general**
For antigens see B04-B04C.
1965-1993
Now coded as: B04-E01, B04-F01, B04-N04, B04-N05, B04-N06

B04-B04A1 **.. DNA, vector DNA, RNA, nucleic acids.**
1986-1993
Now coded as: B04-E02+, B04-E03+, B04-E04, B04-E05, B04-E06, B04-E07, B04-E08

B04-B04A2 **.. Plant cells**
1986-1993
Now coded as: B04-F08

B04-B04A3 **.. Animal cells**
For blood cells see B04-B04D, microbial cells see B04-B02B.
1986-1993
Now coded as: B04-F02, B04-F05, B04-F07

B04-B04A4 **.. Proteins from plants and mushrooms**
e.g. gluten.
1986-1993
Now coded as: B04-N01+

B04-B04A5 **.. Proteins from microorganisms**
1986-1993
Now coded as: B04-N03+

B04-B04A6 **.. Proteins from animals or insects**
e.g. gelatin, egg white, glycoproteins, gamma-globulins, silk.
1986-1993
Now coded as: B04-N02+

B04-B04B **. Animal excrements general**
1965

B04-B04B1 **.. Urine**
1994
Previous code(s): B04-B04B

B04-B04B2 **.. Faeces**
1994
Previous code(s): B04-B04B

B04-B04C **. Antigens, general Antibody (pre-1994)**
1965
Previous code(s): B04-G01

B04-B04C1 **.. Microbial antigen**
When used as a vaccine then B02-V02 is coded (before 1994) or B14-S11+ (from 1994).
1986

B04-B04C2 **.. Other antigens**
Material which is antigenic is also coded.
1986

B04-B04C3 **.. Microbial antibody**
1986-1993
Now coded as: B04-G07, B04-G08, B04-G09

B04-B04C4 **.. Anticancer antibody**
1986-1993
Now coded as: B04-G05

B04-B04C5 **.. Monoclonal antibody**
1986-1993
Now coded as: B04-G21

B04-B04C6 **.. Other antibody including immunoglobulin and hemaglutinin**
1986-1993
Now coded as: B04-G02, B04-G03, B04-G04, B04-G06, B04-G10, B04-G20, B04-G22

B04-B04C7 **.. Haptens**
A substance which can combine with antibody but cannot itself initiate an immune response unless it is attached to a carrier molecule.
1994
Previous code(s): B04-B04C

B04-B04C8 **.. Cancer antigen**
2005

B04-B04C9 **.. Allergen**
An antigenic substance capable of producing immediate type hypersensitivity (i.e. an allergic reaction). The specific substance which is allergenic is also coded (e.g. B04-A08C2 + B04-A09C for pollen).
2005

B04-B04D **. Blood and derivatives general**
1965

B04-B04D1 **.. Blood cells and derivatives**
Including leucocytes, erythrocytes, lymphocytes. These are not coded under B04-B04A3.
1986-1993
Now coded as: B04-F04

B04-B04D2 **.. Blood proteins**
Excluding blood factors. e.g. serum albumin, hemoglobin, fibrinogen (prior to 198601 see also B04-B04A). From 1994 all clotting factors including fibrin and fibrinogen are coded under B04-H19.
1986

B04-B04D3 **.. Blood factors**
e.g. clotting factors, thrombin (see also B04-B02C3 for prothrombin, fibrinogen).
1986-1993
Now coded as: B04-H01, B04-H13, B04-H14. B04-H15, B04-H19

B04-B04D4 **.. Blood serum, plasma**
Excluding B04-B04D2/3.
1986

B04-B04D5 .. **Whole blood**
Excluding B04-B04D1 to B04-B04D4.
1986

B04-B04E . **Bone, marrow, nails, teeth**
Includes skin, horn and hair as well as extracts.
1965

B04-B04F . **Enzyme inhibitors**
1965-1993
Now coded as: B04-M01

B04-B04G . **Gland extracts**
Includes saliva, snake venom and musk.
1965

B04-B04H . **Organ extracts**
Including extracts from all body organs, such as heart, kidney, liver, placenta, nerve, brain, lung, pancreas, intestine, stomach.
1965

B04-B04J . **Metabolic factors**
1965-1993
Now coded as: B04-H01, B04-H04+, B04-H06+, B04-H08, B04-H09, B04-H10,B04-H12, B04-H13, B04-H14, B04-H16,B04-H17, B04-H18

B04-B04K . **Milk**
Including derivatives.
1965

B04-B04L . **Other mammalian extracts**
This code is used for mammalian extracts only (from 1994). For whole mammals see B04-P.
1965

B04-B04M . **Other non-mammalian extracts**
This code is used for non-mammalian extracts only (from 1994). For whole animals see B04-P.
1965

B04-B04M1 .. **Arthropod**
2012

B04-B04M2 .. **Amphibian**
2012

B04-B04M3 .. **Reptile**
2012

B04-B04M4 .. **Fish**
2012

B04-B04M5 .. **Avian**
2012

B04-B04M6 .. **Trochozoa**
Includes annelids (worms) and molluscs.
2017

B04-B04N . **Eggs**
Used when the source of the eggs is not specified or where all three subcodes are applicable. Also includes egg parts and egg extracts. Avian eggs code as B04-B04N1 from 201501.
2014

B04-B04N1 .. **Avian eggs**
2015
Previous code(s): B04-B04N

B04-B04N2 .. **Fish eggs, fish roe**
2015

B04-B04N3 .. **Eggs from other sources**
Includes insect and reptile eggs.
2015

B04-C **POLYMERS**
The generic codes B04-C01, B04-C02 and B04-C03 are only used for general disclosures which would otherwise require several specific codes. Therefore when a specific code is searched, the corresponding generic code must also be searched.

B04-C01 **Polypeptides general**
Polypeptides containing four or more peptide units are coded from B04-C01A to B04-C01G only, tripeptides are coded both B04-C01A and according to their chemical structure (in B05 to B10) and dipeptides are coded according to their chemical structures only. Cystine represents two amino acid residues. Polypeptide/protein sequences are further coded under B04-N.

B04-C01A . **3 to 5 alpha amino acid residues**
1986

B04-C01B . **6 to 10 alpha amino acid residues**
1986

B04-C01C . **11 to 15 alpha amino acid residues**
1986

B04-C01D . **16 to 20 alpha amino acid residues**
1986

B04-C01E . **21 to 25 alpha amino acid residues**
1986

B04-C01F **. 26 to 30 alpha amino acid residues**
1986

B04-C01G **. 31 or more alpha amino acid residues**
This code also includes proteins of defined amino acid sequence.
1986

B04-C01H **. Modified and/or cyclic peptides**
Includes analogues. Should be applied in conjunction with a length code selected from B04-C01A to B04-C01G. Not used for peptides cyclised purely by disulfide bridge formation.
2005

B04-C02 **Polysaccharides general**
These must contain at least 7 sugar residues in sequence.

B04-C02A **. Cellulose and derivatives**
1986

B04-C02A1 **.. Unmodified cellulose**
1986

B04-C02A2 **.. Cellulose ethers**
e.g. carboxymethylcellulose.
1986

B04-C02A3 **.. Cellulose esters**
e.g. cellulose acetate.
1986

B04-C02B **. Starch, dextrin and derivatives**
1986

B04-C02B1 **.. Cyclodextrin and derivatives**
1986

B04-C02B2 **.. Unmodified starch**
1986

B04-C02B3 **.. Modified starch**
Includes derivatives of starch such as carboxymethylstarch.
2010
Previous code(s): B04-C02B

B04-C02B4 **.. Dextrin**
2012

B04-C02C **. Dextran**
1986

B04-C02D **. Polysaccharides from plant**
Excluding cellulose, starch, dextran, dextrin. Including pectin, plant gums, alginate, agar. Code(s) for the appropriate plant division(s) are also applied, if source plant(s) known.
1986

B04-C02E **. Polysaccharides from animal, bird, reptile or arthropod**
1986

B04-C02E1 **.. Heparin (optionally modified)**
1986

B04-C02E2 **.. Chondroitin (optionally modified)**
1986

B04-C02E3 **.. Chitin (optionally modified)**
The code B04-C02F can also be searched if chitin is obtained from fungal source.
1986

B04-C02E4 **.. Hyaluronic acid (optionally modified)**
2012

B04-C02F **. Polysaccharides from microbial sources**
Polysaccharide which is modified microbiologically can also be searched under the code for the original polysaccharide.
1986

B04-C02V **. Lipopolysaccharide**
1994
Previous code(s): B04-C02,B04-B01B

B04-C02X **. Oligosaccharides**
This code is applied whenever the term oligosaccharide is used in a patent, or otherwise to chains of 3 to 6 sugar units. Tetrahydropyran(furan) are **not** coded unless they are ring modified.
1994

B04-C03 **Polymers general**

B04-C03A **. Poly N-vinyl-lactams**
1975

B04-C03B **. Other addition**
1975

B04-C03C **. Polyethers**
Including thioethers and sulfides.
1975

B04-C03D **. Natural, other condensation**
1975

B04-C03E # **. Dendrimers**
2002

B04-C03F **. Silicones**
2005
Previous code: B04-C03D

B04-D OTHER NATURAL PRODUCTS

B04-D01 **Sugars (mono- or disaccharides)**
This code is used for sugars of undefined structure only, or when the sugar is an essential ingredient of a pharmaceutical composition. Includes molasses.

B04-D01A . **Honey**
2011

B04-D02 **Others**
Includes any other natural product not covered by other codes e.g. clay, minerals, etc

B04-D03 **Biomass**
1994
Previous code(s): B04-A07D, B04-A07F, B04-B02B, B04-B04B, B04-B04L, B04-B04M

B04-E **NUCLEIC ACIDS**
Nucleic acids contain 7 or more nucleotide residues. E suffix is not appended to the codes in this section.
1994

B04-E01 **Nucleic acid general and other**
This code covers only non-specific or general nucleic acids. It is **not** used to replace three or more codes for specific forms of DNA/RNA which are all coded individually in section B04-E02 to B04-E08. For example, if a patent claims: (1) a DNA sequence comprising a gene coding for a 5-HT receptor. (2) a plasmid containing (1). (3) a nucleic acid probe. (4) an antisense oligonucleotide. the codes are: B04-B03C, B04-E03D, B04-E05, B04-E06, B04-E08.
1994
Previous code(s): B04-B04A1

B04-E01A . **DNA**
Deoxyribonucleic acid.
2018

B04-E01B . **RNA**
Ribonucleic acid.
2018

B04-E01X . **Capped nucleic acids**
Includes trinucleotide capped sequences, particularly those based around m7G (7-methylated guanine) and analogs. To be searched alongside all other applicable codes from B04-E relating to the nucleic acid.
2024

B04-E02 **Altered DNA coding sequences**
These codes include engineered, recombinant constructs, chimeric genes, heterologous genes, fusion genes, allelic variants and mutant alleles. The codes include RNA transcripts of these sequences.
1994
Previous code(s): B04-B04A1

B04-E02A . **Encoding antibodies**
1994
Previous code(s): B04-B04A1

B04-E02B . **Encoding modifiers of cell function and growth**
1994
Previous code(s): B04-B04A1

B04-E02C . **Encoding hormones**
1994
Previous code(s): B04-B04A1

B04-E02D . **Encoding receptors**
1994
Previous code(s): B04-B04A1

B04-E02E . **Encoding enzymes**
1994
Previous code(s): B04-B04A1

B04-E02F . **Encoding other protein/polypeptide**
1994
Previous code(s): B04-B04A1

B04-E02G . **Oncogene**
2002

B04-E02H . **Encoding fusion protein**
2002

B04-E02J . **Encoding antigens**
2007
Previous code(s): B04-E02F

B04-E02K . **Encoding nucleic acid**
2009

B04-E03 **Other DNA coding sequences**
These codes cover wild type genes and their fragments, and include their RNA transcripts.
1994
Previous code(s): B04-B04A1

B04-E03A . **Encoding antibodies**
1994
Previous code(s): B04-B04A1

B04-E03B . **Encoding modifiers of cell function and growth**
1994
Previous code(s): B04-B04A1

B04-E03C . **Encoding hormones**
1994
Previous code(s): B04-B04A1

B04-E03D . **Encoding receptors**
1994
Previous code(s): B04-B04A1

B04-E03E **. Encoding enzymes**
1994
Previous code(s): B04-B04A1

B04-E03F **. Encoding other protein/polypeptide**
1994
Previous code(s): B04-B04A1

B04-E03G **. Oncogene**
2002

B04-E03H **. Encoding fusion protein**
2002-2008

B04-E03J **. Encoding antigens**
2007
Previous code(s): B04-E03F

B04-E03K **. Encoding nucleic acid**
2009

B04-E04 **Promoters, enhancers, regulatory sequences, upstream activating sequences**
1994
Previous code(s): B04-B04A1

B04-E05 **Primers, probes**
Probes can be coded in conjunction with B12-K04G codes, e.g. a probe for detecting cancer is coded B04-E05 and B12-K04G2A. A new method for diagnosing cancer utilising probes is coded B04-E05, B11-C08E5/B11-C08F8 and B12-K04G2A.
1994
Previous code(s): B04-B04A1

B04-E06 **Antisense sequences**
Excluding antisense probes.
1994
Previous code(s): B04-B04A1

B04-E07 **Other non-coding sequences**
This code includes ribozyme, ribosomal, transfer and mitochondrial nucleic acids.
1994
Previous code(s): B04-B04A1

B04-E07A **. Ribozyme**
An RNA molecule that has catalytic activity.
2005

B04-E07B **. DNAzyme**
A DNA molecule that has catalytic activity.
2005

B04-E07C **. siRNA (short interfering RNA)**
Double stranded short RNA molecules that bind to RNA and target them for degradation and/or destruction.
2005

B04-E07D **. miRNA**
Micro RNA.
2005

B04-E07E **. shRNA**
Small hairpin RNA.
2006

B04-E07F **. Aptamer**
2007

B04-E08 **Vectors, plasmids, cosmids, transposons**
Viral vectors are also coded under virus (B04-F11+).
1994
Previous code(s): B04-B04A1

B04-E09 **Single Nucleotide Polymorphism (SNP)**
2002

B04-E10 **Peptide nucleic acid**
2002

B04-E11 **Other analog nucleic acid**
2002

B04-E12 **Reporter/marker nucleic acid**
2015

B04-E13 **CRISPR**
Includes SPIDR (Spacer Interspersed Direct Repeats). May be additionally searched with CRISPR nuclease (B04-L05A2) if the system also contains a claimed enzymatic component e.g. CRISPR/Cas system.
2015

B04-E14 **Bacterial nucleic acid**
2021

B04-E15 **Viral nucleic acid**
2021

B04-E16 **Fungal nucleic acid**
2022

B04-E99 **Patent with Geneseq record**
2008

B04-F **CELLS, MICROORGANISMS, TRANSFORMANTS, HOSTS**
E suffix is appended to codes for cells which are products of genetic manipulation, but not to naturally occurring mutant microbial strains, products of cell fusion or mutagenesis.
1994

B04-F01 # **Cells, microorganisms, transformants, hosts, cell lines, tissue general**
1994
Previous code(s): B04-B02B, B04-B04A, B04-B04D1

B04-F02 # **Mammal (including human)**
1994
Previous code(s): B04-B04A3

B04-F02A # **. Cancer cells/Carcinoma**
2002

B04-F02B # **. Stem cells**
Cell that can replicate indefinitely and differentiate into other cells.
2005

B04-F02C # **. Progenitor cells**
Cell that is more advanced than a stem cell, giving rise to a distinct cell lineage.
2017

B04-F03 # **Sperm, ova (germ cells)**
1994
Previous code(s): B04-B02D

B04-F04 # **Blood cells (general)**
This code covers non-specific blood cells or when three or more specific types of blood cell are mentioned.
1994
Previous code(s): B04-B04D1

B04-F04A # **. Red blood cells**
2006
Previous code(s): B04-F04

B04-F04B # **. White blood cells (general)**
This code is used when non-specific white blood cells are mentioned or when three or more white blood cell types are mentioned.
2006
Previous code(s): B04-F04

B04-F04B1 # **.. Lymphocytes**
2006
Previous code(s): B04-F04

B04-F04B1A **... T-lymphocytes**
2006
Previous code(s): B04-F04

B04-F04B1B **... B-lymphocytes**
2006
Previous code(s): B04-F04

B04-F04B2 # **.. Other white blood cells**
2006
Previous code(s): B04-F04

B04-F04B2A **... Dendritic cells**
2006
Previous code(s): B04-F04

B04-F04B2B **... Macrophages**
2006
Previous code(s): B04-F04

B04-F04B2C **... Neutrophils**
2006
Previous code(s): B04-F04

B04-F04B2D **... Others**
2006
Previous code(s): B04-F04

B04-F05 # **Hybridoma**
1994
Previous code(s): B04-B04A3

B04-F05A # **. Chimeric & fused cells**
Cells comprising or formed from components derived from two separate cell types, not including hybridomas coded under B04-F05.
2005

B04-F06 # **Protozoa**
1994
Previous code(s): B04-B02B5

B04-F07 # **Other animal**
1994
Previous code(s): B04-B04A3

B04-F07A # **. Arthropod**
2002

B04-F07B # **. Amphibian**
2002

B04-F07C # **. Reptile**
2002

B04-F07D # **. Fish**
2002

B04-F07E # **. Avian**
2006

B04-F08 # **Plant/algae**
1994
Previous code(s): B04-B04A2, B04-B02B3

B04-F08A # **. Algae**
Includes diatoms.
2008

B04-F09 # **Yeast/fungus general and other**
1994
Previous code(s): B04-B02B2

B04-F09A # **. Aspergillus**
e.g. A. nidulans, A. fumigatus, A. flavus, A. niger, A. oryzae.
1994
Previous code(s): B04-B02B2

B04-F09B # **. Neurospora**
e.g. N. crassa.
1994
Previous code(s): B04-B02B2

B04-F09C # **. Saccharomyces**
e.g. S. pombe, S. cerevisiae (brewer's yeast).
1994
Previous code(s): B04-B02B2

B04-F09D # **. Pichia**
e.g. Pichia pastoris.
2005

B04-F09E # **. Multicellular fungi, non-higher**
2005

B04-F10 # **Bacteria general**
1994
Previous code(s): B04-B02B1

B04-F10A # **. Gram-negative genera, general and other**
1994
Previous code(s): B04-B02B1

B04-F10A1 # **.. Bordetella**
e.g. B. pertussis.
1994
Previous code(s): B04-B02B1

B04-F10A2 # **.. Borrelia**
1994
Previous code(s): B04-B02B1

B04-F10A3 # **.. Escherichia**
e.g. E. coli.
1994
Previous code(s): B04-B02B1

B04-F10A4 # **.. Mycoplasma**
e.g. M. pneumoniae, M. mycoides.
1994
Previous code(s): B04-B02B

B04-F10A5 # **.. Neisseria**
e.g. N. gonorrhoeae, N. meningitidis.
1994
Previous code(s): B04-B02B1

B04-F10A6 # **.. Pseudomonas**
e.g. P. aeruginosa, P. mallei.
1994
Previous code(s): B04-B02B1

B04-F10A7 # **.. Rickettsia**
e.g. R. prowazekii.
1994
Previous code(s): B04-B02B1

B04-F10A8 # **.. Salmonella**
e.g. S. typhi.
1994
Previous code(s): B04-B02B1

B04-F10A9 # **.. Vibrio**
e.g. V. cholerae, V. parahemolyticus.
1994
Previous code(s): B04-B02B1

B04-F10B # **. Gram-positive genera, general and other**
1994
Previous code(s): B04-B02B1

B04-F10B1 # **.. Bacillus**
e.g. B. subtilis.
1994
Previous code(s): B04-B02B1

B04-F10B2 # **.. Mycobacteria**
e.g. M. tuberculosis, M. bovis, M. leprae, M. phlei, BCG.
1994
Previous code(s): B04-B02B1

B04-F10B3 # **.. Staphylococcus**
e.g. S. aureus, S. epidermidis.
1994
Previous code(s): B04-B02B1

B04-F10B4 # **.. Streptococcus**
e.g. S. pyogenes, S. fecalis.
1994
Previous code(s): B04-B02B1

B04-F10B5 # **.. Streptomyces**
e.g. S. griseus, S. scabies.
1994
Previous code(s): B04-B02B1

B04-F11 # **Viruses**
Including bacteriophage lambda and viral vectors.
1994
Previous code(s): B04-B02B4

B04-F11A # **. DNA virus general**
Virus that infects foreign DNA into host cell, which then produces viral protein.
2005

B04-F11A1 # **.. Adenovirus**
Includes adeno-associated virus.
2007

B04-F11B # **. RNA virus general**
Virus that infects foreign RNA into host cell, where the DNA sequence is then transcribed and viral protein produced.
2005

B04-F11B1 # **.. Retrovirus**
2007

B04-F11B2 # **.. Coronavirus**
Including COVID-19.
2021

B04-F12 # **Minicells & organelles**
E.g. mitochondria and any sub-cellular particle.
2005

B04-F13 # **Platelets**
2010

B04-G **ANTIBODY DEFINED IN TERMS OF ANTIGEN**
E suffix is appended only when the antibody is produced by genetic methods beyond standard hybridoma technology.
1994

B04-G01 # **General and other**
Also includes general and unspecified immunoglobulins (specific immunoglobulins may be searched under the heading B04-G27)
1994
Previous code(s): B04-B04C

B04-G01A . **Chimeric antibody**
An antibody genetically engineered to contain the variable fragment from one species fused to the constant region from another species.
2005

B04-G01B # . **Human antibody**
An antibody produced from a single human cell line.
2005

B04-G01C . **Humanised antibody**
An antibody from a single cell line genetically engineered to contain around 90% human protein, reducing the likelihood of an immune response.
2005

B04-G01D # . **Murine antibody**
An antibody produced from a single mouse cell line.
2005

B04-G02 # **Antimodifier of cell function and growth, antihormone antibody**
1994
Previous code(s): B04-B04C6

B04-G03 # **Antienzyme antibody**
1994
Previous code(s): B04-B04C6

B04-G04 # **Antireceptor antibody**
1994
Previous code(s): B04-B04C6

B04-G05 # **Anticancer cell antibody**
1994
Previous code(s): B04-B04C4

B04-G06 # **Antiblood cells antibody**
e.g. antibody to T-cell, B-cell.
1994
Previous code(s): B04-B04C6

B04-G07 # **Antibacteria antibody**
1994
Previous code(s): B04-B04C3

B04-G08 # **Antivirus antibody**
1994
Previous code(s): B04-B04C3

B04-G09 # **Antimicroorganisms (other) antibody**
1994
Previous code(s): B04-B04C3

B04-G09A # . **Antifungus antibody**
2008

B04-G09B # . **Antiprotozoal antibody**
2008

B04-G10 # **Antiplant antibody**
1994
Previous code(s): B04-B04C6

B04-G11 # **Antibody binding to another antibody**
Also includes anti-idiotypic antibody.
2006

B04-G12 # **Antiparasitic antibody**
Antibody acting against parasitic organisms/any kind of parasites other than bacteria, virus, fungi, protozoa.
2011

B04-G20 # **Catalytic antibodies**
Including abzyme. This code defines antibodies other than in terms of their antigen and may be applied in conjunction with another B04-G code.
1994
Previous code(s): B04-B04C6

B04-G21 # **Monoclonal antibody**
This code defines antibodies other than in terms of their antigen and may be applied in conjunction with another B04-G code.
1994
Previous code(s): B04-B04C5

B04-G22 # **Polyclonal antibodies**
This code defines antibodies other than in terms of their antigen and can be applied in conjunction with another B04-G code.
1994
Previous code(s): B04-B04C6

B04-G23 # **Antibody fragments**
2006

B04-G24 # **Bispecific antibodies**
2006

B04-G25 # **Anti-prion protein antibody**
2008

B04-G26 # **Heterospecific antibody**
An individual antibody which can bind more than one antigen due to the presence of two or more different binding sites. May be searched in conjunction with additional codes from B04-G.
2016

B04-G27 **Immunoglobulins (specific)**
Only specific immunoglobulins are covered within this coding section. General and unspecified immunoglobulins should be searched using B04-G01.
2016

B04-G27A # **. Immunoglobulin A**
May be searched in conjunction with additional codes from B04-G.
2016

B04-G27D # **. Immunoglobulin D**
May be searched in conjunction with additional codes from B04-G.
2016

B04-G27E # **. Immunoglobulin E**
May be searched in conjunction with additional codes from B04-G.
2016

B04-G27G # **. Immunoglobulin G**
May be searched in conjunction with additional codes from B04-G.
2016

B04-G27M # **. Immunoglobulin M**
May be searched in conjunction with additional codes from B04-G.
2016

B04-G27X # **. Immunoglobulin X**
May be searched in conjunction with additional codes from B04-G. Not coded when X is stated in the document to represent an undefined or general immunoglobulin.
2024

B04-G27W # **. Immunoglobulin W**
Found in sharks and skates; related to mammalian IgD. May be searched in conjunction with additional codes from B04-G.
2021

B04-G27Y # **. Immunoglobulin Y**
May be searched in conjunction with additional codes from B04-G.
2020

B04-H **MODIFIERS OF CELL FUNCTION AND GROWTH**
The term "modifier of cell function and growth" includes biological response modifiers (immune system mediators) such as prostaglandins, cytokines, monokines, interleukins, lymphokines (a subset of interleukins), CSFs, interferons, the growth factors, somatomedins and blood factors. All of these are proteins except for prostaglandins. The E suffix is appended to codes for molecules produced by exogenous gene expression in host cells as well as derivatives modified at the genetic level.
1994

B04-H01 # **Modifier of cell function and growth general and other**
This code is applied when either a generic term such as cytokine, is used or when a specific substance does not fit into any category covered by B04-H02 to B04-H20B. It also includes blood factors general and other.
1994
Previous code(s): B02-V03, B04-B02C, B04-B02E, B04-B04A, B04-B04D, B04-C01

B04-H02 # **Interleukins general and other**
1994
Previous code(s): B04-C01G

B04-H02A # **. Interleukin 1**
1994
Previous code(s): B04-C01G

B04-H02B # **. Interleukin 2**
1994
Previous code(s): B04-C01G

B04-H02C # **. Interleukin 3 (Multi-CSF)**
1994
Previous code(s): B04-C01G

B04-H02D # **. Interleukin 4**
1994
Previous code(s): B04-C01G

B04-H02F # **. Interleukin 5**
1994
Previous code(s): B04-C01G

B04-H02G # **. Interleukin 6**
1994
Previous code(s): B04-C01G

B04-H02H # **. Interleukin 7**
1994
Previous code(s): B04-C01G

B04-H02J # **. Interleukin 8 (NAP "Neutrophil Activating Protein")**
1994
Previous code(s): B04-C01G, B04-B04A

B04-H02K # **. Interleukin 9**
1994
Previous code(s): B04-C01G

B04-H02L # **. Interleukin 10**
1994
Previous code(s): B04-C01G

B04-H02M # **. Interleukin 11**
1994
Previous code(s): B04-C01G

B04-H02N # . **Interleukin 12**
1994
Previous code(s): B04-C01G

B04-H02P # . **Interleukin 13**
1994
Previous code(s): B04-C01G

B04-H02Q # . **Interleukins 14-20**
2006
Previous code(s); B04-H02

B04-H02R # . **Interleukins 21-25**
2006
Previous code(s): B04-H02

B04-H02S # . **Interleukins 26-30**
2006
Previous code(s): B04-H02

B04-H02T # . **Interleukins 31-35**
2006
Previous code(s): B04-H02

B04-H03 **Prostaglandins general and other**
Includes all modified prostaglandins not covered more specifically in subcodes.
1994
Previous code(s): B04-B02E

B04-H03A . **Prostaglandin E1**
1994
Previous code(s): B04-B02E

B04-H03B . **Prostaglandin E2**
1994
Previous code(s): B04-B02E

B04-H03C . **Prostaglandin F2 alpha**
1994
Previous code(s): B04-B02E

B04-H03D . **Prostacyclin (Prostaglandin I2)**
1994
Previous code(s): B04-B02E,B06-A02

B04-H03F . **Leukotrienes**
1994
Previous code(s): B04-B02E, B07-A03, B10-B02D, B10-C04D

B04-H03G . **Thromboxanes**
1994
Previous code(s): B04-B02E, B06-A02, B07-A02

B04-H04 # **CSFs (Colony Stimulating Factors) General and other**
1994
Previous code(s): B04-B04J

B04-H04A # . **G-CSF (Granulocyte Colony Stimulating Factor)**
1994
Previous code(s): B04-B04J

B04-H04B # . **M-CSF (Macrophage Colony Stimulating Factor)**
1994
Previous code(s): B04-B04J

B04-H04C # . **GM-CSF (Granulocyte Macrophage Colony Stimulating Factor)**
1994
Previous code(s): B04-B04J

B04-H04D # . **MEG-CSF (Megakaryocyte Colony Stimulating Factor)**
1994
Previous code(s): B04-B04J

B04-H05 # **Interferons general and other**
1994
Previous code(s): B02-V03

B04-H05A # . **Interferon alpha**
1994
Previous code(s): B02-V03

B04-H05B # . **Interferon beta**
1994
Previous code(s): B02-V03

B04-H05C # . **Interferon gamma**
1994
Previous code(s): B02-V03

B04-H05D # . **Interferon delta**
2024
Previous code(s): B02-V03

B04-H05K # . **Interferon kappa**
2024
Previous code(s): B02-V03

B04-H06 # **Growth factors general and other**
1994
Previous code(s): B04-B04J

B04-H06A # . **EGF (Epidermal Growth Factor)**
1994
Previous code(s): B04-B04J

B04-H06B # . **PDGF (Platelet Derived Growth Factor)**
1994
Previous code(s): B04-B04J

B04-H06C # . **MDGF (Macrophage Derived Growth Factor)**
1994
Previous code(s): B04-B04J

B04-H06D # . **NGF (Nerve Growth Factor)**
1994
Previous code(s): B04-B04J

B04-H06F # . **TGF (Transforming Growth Factor)**
1994
Previous code(s): B04-B04J

B04-H06G # . **FGF (Fibroblast Growth Factor)**
1994
Previous code(s): B04-B04J

B04-H06H # . **Somatomedins, sulfation factors**
This code includes IGF's (insulin-like growth factors).
1994
Previous code(s): B04-B04J

B04-H06J # **. PGF (Prostatic Growth Factor)**
1994
Previous code(s): B04-B04J

B04-H06K # **. HGF (Hepatocyte Growth Factor)**
1994
Previous code(s): B04-B04J

B04-H06L # **. Bone morphogenetic protein**
2002

B04-H06M # **. Vascular endothelial growth factor**
Also known as VEGF.
2006
Previous code(s): B04-H06

B04-H07 # **Erythropoietin (Epo), thrombopoietin**
1994, 2010
Previous code(s): B04-B04A6, B04-B02D, thrombopoietin B04-H06 (pre-2010)

B04-H08 # **TNF (Tumour Necrosis Factor)**
1994
Previous code(s): B04-B04J

B04-H09 # **LIF (Leukemia Inhibitory Factor)**
1994
Previous code(s): B04-B04J

B04-H10 # **MIS (Mullerian inhibitory substance)**
1994
Previous code(s): B04-B04J

B04-H11 # **MIP (Macrophage inflammatory protein)**
1994
Previous code(s): B04-B04A6

B04-H12 # **Megakaryocyte potentiator**
1994
Previous code(s): B04-B04A6, B04-B04J

B04-H13 # **Lymphotoxin (LT)**
1994
Previous code(s): B04-B04A6, B04-B04D3, B04-B04J

B04-H14 # **PAF (Platelet activating factor)**
1994
Previous code(s): B04-B04D3, B04-B04J

B04-H15 # **PA (Plasminogen Activator)**
1994
Previous code(s): B04-B02C3, B04-B04D3

B04-H16 # **SCF (Stem Cell Factor)**
1994
Previous code(s): B04-B04J

B04-H17 # **T-Activin (TA, Thymic factor)**
1994
Previous code(s): B04-B04A6, B04-B04JB04-H18 # Activin A (EDF, Erythroid differentiation factor)
1994
Previous code(s): B04-B04A6, B04-B04J

B04-H18 # **Activin A (EDF, Erythroid differentiation factor)**
1994
Previous code(s): B04-B04A6, B04-B04J

B04-H19 # **Clotting factors**
Including: thrombin (fibrinogenase, thrombase), prothrombin (thrombinogen, Factor II), fibrin, fibrinogen (Factor I), Factor III (tissue thromboplastin, tissue factor), Factor V (proaccelerin, accelerator globulin (AcG), labile factor), Factor VII (proconvertin, thrombokinase, autoprothrombin I, serum prothrombin conversion accelerator (SPCA), stable factor), Factor VIII (antihemophilic globulin (AHG), antihemophilic factor A), Factor IX (plasma thromboplastin component (PTC), autoprothrombin II, Christmas factor, antihemophilic factor B), Factor X (Stuart factor, autoprothrombin C, Prower factor, Stuart-Prower factor, thrombokinase), Factor XI (plasma thromboplastin antecendent (PTA), antihemophilic factor C), Factor XII (Hageman factor, glass contact, activation factor), Factor XIII (fibrin stabilising factor (FSF), fibrinase, Laki-Lorand factor (LLF), transglutaminase) and the platelet factors 1, 2, 3 & 4 etc. N.B. Factor IV, which is calcium, is coded B05-A01B. The clot-dissolving proteolytic enzyme plasmin (fibrinolysin) and plasminogen are coded B04-L05C.
1994
Previous code(s): B04-B02C3, B04-B02D2, B04-B04D3, B04-C02B3

B04-H20 # **Adhesion and motor molecules general and other**
e.g. LFA (lymphocyte function associated antigen), ICAM/VCAM (intercellular/vascular adhesion molecule).
1994
Previous code(s): B04-B04A6, B04-B04C2

B04-H20A # . **Fibronectin**
1994
Previous code(s): B04-B04A6

B04-H20B # . **Vitronectin**
1994
Previous code(s): B04-B04A6

B04-H20C # . **Muscle proteins general**
2002

B04-H20C1 # .. **Actin**
2002

B04-H20C2 # .. **Myosin**
2002

B04-H20C3 # .. **Tropomyosin**
2002

B04-H21 # **Integrins**
2002

B04-J **HORMONES**
1994

B04-J01 # **Hormones general and other**
Hormones which are not covered by the B04-J03, B04-J04 and B04-J05 general sub-headings; and are not represented in B04-J06 to B04-J18 are coded here. e.g. generic terms such as hypothalamic, adrenergic, neuropeptide, gastrointestinal and insect hormones.
1994
Previous code(s): B04-B02D

B04-J02 **Steroidal hormones (no structure)**
Includes all steroids where no structure is given.
1994
Previous code(s): B04-B02D1

B04-J03 # **Pancreatic hormone general and other**
Including pancreatic polypeptide.
1994
Previous code(s): B04-B02D2

B04-J03A # . **Insulin**
1994
Previous code(s): B04-B02D2

B04-J03B # . **Glucagon**
1994
Previous code(s): B04-B02D2

B04-J04 # **Thyroid and parathyroid general and other**
N.B. thyroxine is coded B10-B02E.
1994
Previous code(s): B04-B02D3

B04-J04A # . **Calcitonin**
1994
Previous code(s): B04-B02D3

B04-J04B # . **Parathyroid hormone**
1994
Previous code(s): B04-B02D3

B04-J05 # **Pituitary gland hormones general and other**
Including prolactin and human growth hormone.
1994
Previous code(s): B04-B02D4

B04-J05A # . **Oxytocin**
1994
Previous code(s): B04-B02D4

B04-J05B # . **ADH (Antidiuretic hormone)**
Also known as vasopressin.
1994
Previous code(s): B04-B02D4

B04-J05D # . **ACTH (Adrenocorticotropic hormone, "adrenocorticotropin")**
1994
Previous code(s): B04-B02D4

B04-J05F # . **TSH (Thyroid Stimulating Hormone)**
1994
Previous code(s): B04-B02D4

B04-J05G # . **MSH (Melanocyte stimulating hormone)**
1994
Previous code(s): B04-B02D4

B04-J05H # . **Gonadotropins**
Including FSH (follicle stimulating hormone), LH (luteinising hormone) and HMG (human menopausal gonadotropin).
1994
Previous code(s): B04-B02D4

B04-J05J # . **STH (Somatotropic growth hormone)**
1994
Previous code(s): B04-B02D4

B04-J06 # **CRH (Corticotropin-releasing hormone)**
Hormones covered by B04-J06 to B04-J18 are specific and other than steroidal, pancreatic, thyroid, parathyroid, and pituitary gland hormones.
1994
Previous code(s): B04-B02D

B04-J07 # **GN-RH (Gonadotropin-releasing hormone), LH-RH (Luteinising hormone-releasing hormone)**
1994
Previous code(s): B04-B02D

B04-J08 # **TRH (Thyrotropin-releasing hormone)**
1994
Previous code(s): B04-B02D

B04-J09 # **GH-RH, GH-RF, SRF (Growth hormone-releasing hormone/factor, somatotropin-releasing factor)**
1994
Previous code(s): B04-B02D

B04-J10 # **Somatostatin**
1994
Previous code(s): B04-B02D

B04-J11 # **Endorphins/enkephalins**
1994
Previous code(s): B04-B02D

B04-J12 # **Gastrin/Secretin/Motilin**
1994
Previous code(s): B04-B02D

B04-J13 # **Cholecystokinin (CCK-PZ, Pancreozymin)**
1994
Previous code(s): B04-B02D

B04-J14 # **Tachykinins (Substance P, SP)**
1994
Previous code(s): B04-B02D

B04-J15 # **Neurotensin**
1994
Previous code(s): B04-B02D

B04-J16 # **Ecdysone**
1994
Previous code(s): B04-B02D

B04-J17 # **Juvenile hormone**
1994
Previous code(s): B04-B02D

B04-J18 # **Angiotensin**
1994
Previous code(s): B04-B02D

B04-J19 # **Melanin concentrating hormone**
Also known as MCH, a 19 amino acid cyclic neuropeptide expressed mainly in the hypothalamus.
2005
Previous code(s): B04-B02D, B04-J01

B04-J99 # **Prohormone**
e.g. progastrin, procalcitonin. To be coded in conjunction with the active form of the appropriate hormone.
2018

B04-K RECEPTORS
1994

B04-K01 # **Receptor general and other**
Including orphan G-protein coupled receptors. CD4: (1) is coded here when described simply as a receptor, (2) is coded B04-K01U when described as a viral receptor.
1994
Previous code(s): B04-B04A6

B04-K01A # **. Parasympathetic receptor (cholinergic receptor)**
1994
Previous code(s): B04-B04A6

B04-K01B # **. Sympathetic receptor (adrenergic receptor, alpha and beta)**
1994
Previous code(s): B04-B04A6

B04-K01C # **. Dopamine receptor**
1994
Previous code(s): B04-B04A6

B04-K01D # **. Serotonin (5-HT) receptor**
1994
Previous code(s): B04-B04A6

B04-K01F # **. Histamine receptor**
1994
Previous code(s): B04-B04A6

B04-K01G # **. Interleukin receptor**
1994
Previous code(s): B04-B04A6

B04-K01H # **. Prostaglandin/leukotriene/thromboxane receptor**
1994
Previous code(s): B04-B04A6

B04-K01J # **. Growth factor receptor**
1994
Previous code(s): B04-B04A6

B04-K01K # **. Other modifier of cell function and growth receptor**
1994
Previous code(s): B04-B04A6

B04-K01L # **. Steroid receptor**
e.g. mineralocorticoid, corticosteroid, estrogen receptor.
1994
Previous code(s): B04-B04A6

B04-K01L1 # **.. Androgen receptors**
2005

B04-K01L2 # **.. Estrogen receptors**
2005

B04-K01L3 # **.. Corticosteroid receptors**
2005

B04-K01L4 # **.. Other steroid receptors**
2005

B04-K01M # **. Insulin receptor**
1994
Previous code(s): B04-B04A6

B04-K01N # **. Angiotensin receptor**
1994
Previous code(s): B04-B04A6

B04-K01P # **. Other hormone receptor**
1994
Previous code(s): B04-B04A6

B04-K01Q # **. Lipoprotein (LDL, HDL) receptor**
1994
Previous code(s): B04-B04A6

B04-K01R # **. Blood cell or blood cell antigen receptor**
1994
Previous code(s): B04-B04A6

B04-K01S # **. Cancer cell or cancer cell antigen receptor**
1994
Previous code(s): B04-B04A6

B04-K01T # **. Bacterial or bacterial antigen receptor**
1994
Previous code(s): B04-B04A6

B04-K01U # **. Viral or viral antigen receptor**
1994
Previous code(s): B04-B04A6

B04-K01V # **. Other cell, microbe or antigen receptor**
1994
Previous code(s): B04-B04A6

B04-K01W # **. Antibody receptor**
1994
Previous code(s): B04-B04A6

B04-K01X # **. Non-steroidal nuclear (hormone) receptor**
2002

B04-K01X1 # **.. Peroxisome proliferator activated receptor (orphan receptor)**
Also known as PPAR.
2005

B04-K01X2 # **.. Thyroid receptor**
2005

B04-K01Y # **. G-protein coupled receptor**
2002

B04-K01Y1 # **.. Melanin concentrating hormone receptor**
2005

B04-K01Z # **. Enzyme receptor**
2014

B04-L **ENZYMES**
Enzyme nomenclature is based whenever possible on the classification defined by the Commission on Biochemical Nomenclature.
1994

B04-L01 # **Enzymes, catalytic proteins general and other**
1994
Previous code(s): B04-B02C

B04-L02 # **Coenzymes**
1994
Previous code(s): B04-B02C1

B04-L03 # **Oxidoreductases general and other**
1994
Previous code(s): B04-B02C2

B04-L03A # **. Oxidases**
1994
Previous code(s): B04-B02C2

B04-L03B # **. Peroxidases**
1994
Previous code(s): B04-B02C2

B04-L03C # **. Oxygenases**
Including cytochrome P450.
1994
Previous code(s): B04-B02C2

B04-L03D # **. Dehydrogenases, reductases**
1994
Previous code(s): B04-B02C2

B04-L03E # **. Lipoxygenases**
2002

B04-L04 # **Transferases general and other**
1994
Previous code(s): B04-B02C4

B04-L04A # **. DNA/RNA polymerases**
1994
Previous code(s): B04-B02C4

B04-L04B # **. Reverse transcriptase**
1994
Previous code(s): B04-B02C4

B04-L04C # **. Kinases**
Any of several enzymes that catalyse the transfer of a phosphate group from ATP to a second substrate.
2005
Previous code(s): B04-L04

B04-L05 # **Hydrolases general and other**
Including beta-lactamases.
1994
Previous code(s): B04-B02C3

B04-L05A # **. Esterases**
Including lipases, nucleases, restriction enzymes, sulfatases, phosphatases.
1994
Previous code(s): B04-B02C3

B04-L05A1 # **.. Phosphodiesterases**
2005

B04-L05A2 # **.. CRISPR system nucleases**
Nucleases specifically for application in CRISPR systems e.g. Cas9 and Cpf1.
2017

B04-L05B # **. Glycosidases**
Including amylases, cellulases, lactases.
1994
Previous code(s): B04-B02C3

B04-L05C # **. Proteases, peptide hydrolases**
Including chymotrypsin, trypsin, papain, fibrinolysin, collagenases, elastases.
1994
Previous code(s): B04-B02C3

B04-L05C1 # **.. Metalloproteases**
2005

B04-L06 # **Lyases**
Including adenyl cyclases, (de)carboxylases, aldolases, dehydratases.
1994
Previous code(s): B04-B02C5

B04-L07 # **Isomerases**
Including racemases, tautomerases, epimerases, mutases.
1994
Previous code(s): B04-B02C6

B04-L08 # **Ligases**
Including synthetases, some carboxylases, aromatase. Excludes synthase.
1994
Previous code(s): B04-B02C7

B04-L09 # **Zymogen and other enzyme precursors**
2002

B04-L10 # **Translocases**
Enzymes in class EC7.
2020

B04-M **ENZYME INHIBITORS**
1994

B04-M01 # **Enzyme inhibitors general and other**
This code is used for enzyme inhibitors with no structure only.
1994
Previous code(s): B04-B04F

B04-N **OTHER PROTEIN/POLYPEPTIDE**
This code is used only when a substance is not better defined in preceding sections, e.g. a protein with adenyl cyclase activity is coded B04-L06 only.
1994

B04-N01 # **Plant protein/polypeptide (No sequence)**
1994
Previous code(s): B04-B04A4,B04-C01

B04-N01A # **. Complete amino acid sequence given**
Codes B04-C01 to B04-C01G are also applied.
1994
Previous code(s): B04-B04A4

B04-N01B # **. Fragments of amino acid sequence given**
1994
Previous code(s): B04-B04A4

B04-N02 # **Animal protein/polypeptide (No sequence)**
1994
Previous code(s): B04-B04A6,B04-C01

B04-N02A # **. Complete amino acid sequence given**
Codes B04-C01 to B04-C01G are also applied.
1994
Previous code(s): B04-B04A6

B04-N02B # **. Fragments of amino acid sequence given**
1994
Previous code(s): B04-B04A6

B04-N03 # **Microorganism protein/polypeptide (No sequence)**
1994
Previous code(s): B04-B04A5,B04-C01

B04-N03A # **. Complete amino acid sequence given**
Codes B04-C01 to B04-C01G are also applied.
1994
Previous code(s): B04-B04A5

B04-N03B # **. Fragments of amino acid sequence given**
1994
Previous code(s): B04-B04A5

B04-N03C # **. Bacterial protein/polypeptide with complete amino acid sequence**
Codes B04-C01 to B04-C01G are also applied.
2006-2010
Now coded B04-N03J1

B04-N03D # **. Bacterial protein/polypeptide with fragments of amino acid sequence**
2006-2010
Now coded B04-N03J2

B04-N03E # **. Viral protein/polypeptide with complete amino acid sequence**
Codes B04-C01 to B04-C01G are also applied.
2006-2010
Now coded B04-N03K1

B04-N03F # **. Viral protein/polypeptide with fragments of amino acid sequence**
2006-2010
Now coded B04-N03K2

B04-N03G # **. Fungal protein/polypeptide with complete amino acid sequence**
Codes B04-C01 to B04-C01G are also applied.
2006-2010
Now coded B04-N03L1

B04-N03H # **. Fungal protein/polypeptide with fragments of amino acid sequence**
2006-2010
Now coded B04-N03L2

B04-N03J # **. Bacterial protein/polypeptide (No sequence)**
2011

B04-N03J1 # **.. Bacterial protein/polypeptide with complete aminoacid sequence**
2011
Previous code(s): B04-N03C

B04-N03J2 # **.. Bacterial protein/polypeptide with fragments of aminoacid sequence**
2011
Previous code(s): B04-N03D

B04-N03K # **. Viral protein/polypeptide (No sequence)**
2011

B04-N03K1 # **.. Viral protein/polypeptide with complete aminoacid sequence**
2011
Previous code(s): B04-N03E

B04-N03K2 # **.. Viral protein/polypeptide with fragments of aminoacid sequence**
2011
Previous code(s): B04-N03F

B04-N03L # **. Fungal protein/polypeptide (No sequence)**
2011

B04-N03L1 # **.. Fungal protein/polypeptide with complete aminoacid sequence**
2011
Previous code(s): B04-N03G

B04-N03L2 # **.. Fungal protein/polypeptide with fragments of aminoacid sequence**
2011
Previous code(s): B04-N03H

B04-N04 # **Protein/polypeptide of undefined origin (No sequence)**
1994
Previous code(s): B04-B04A,B04-C01

B04-N04A # **. Complete amino acid sequence given**
Codes B04-C01 to B04-C01G are also applied.
1994
Previous code(s): B04-B04A

B04-N04B # **. Fragments of amino acid sequence given**
1994
Previous code(s): B04-B04A

B04-N05 # **Lipoprotein**
Also includes lipopeptides.
1994
Previous code(s): B04-B04A,B04-B01B

B04-N06 # **Glycoprotein, peptidoglycan and cytoskeletal proteins**
1994
Previous code(s): B04-B04A

B04-N07 # **Ion channel protein**
2002

B04-N08 **Fusion protein**
2002

B04-N09 # **Molecular chaperones and chaperonins**
E.g. heat shock proteins (HSP).
2005
Previous code(s): B04-N01, B04-N02, B04-N04

B04-N10 **Prions**
Protein pathogen responsible for e.g. Creutzfeldt-Jakob disease and kuru in humans and scrapie in sheep.
2005
Previous code: B04-N02

B04-N11 # **Zinc finger proteins**
Specialized proteins that contain a bound zinc ion or are capable of binding a zinc ion, and are associated with DNA binding proteins.
2005
Previous code(s): B04-N01, B04-N02, B04-N03, B04-N04

B04-N12 # **Transcription factors general**
A protein that binds DNA at a specific promoter or enhancer region where it activates and regulates transcription.
2005
Previous code(s): B04-N01, B04-N02, B04-N03, B04-N04

B04-N13 # **Signalling pathway proteins**
2006

B04-N14 **Peptidomimetics**
2008

B04-N15 **Crystalline form**
Used in conjunction with other specific protein codes for protein crystals.
2010

B04-N16 **Biomarker protein**
Applied with one or more other codes from section B04 which describe the type of biomarker protein e.g. EGFR used as a biomarker for colorectal cancer would be coded with B04-K01J and B04-N16.
2017

B04-P **WHOLE ANIMALS**
E suffix is appended to respective whole animal codes for transgenic animals.
1994

B04-P01 # **Whole animals general and other**
1994
Previous code(s): B04-B04L,B04-B04M

B04-P01A # **. Laboratory experimental animals**
e.g. mice, rats.
1994
Previous code(s): B04-B04L, B04-B04M

B04-P01B # **. Farm animals**
e.g. cows, sheep.
1994
Previous code(s): B04-B04L, B04-B04M

B04-P01C # **. Arthropods**
1994
Previous code(s): B04-B04M

B04-Q **DRUG CONJUGATES GENERAL**
All portions of the conjugate are additionally coded in the relevant sections.
2013

B04-Q01 **Antibody-drug conjugates**
The antibody is additionally coded in section B04-G.
2013

B04-Q02 **Other protein/peptide drug conjugates**
The protein / peptide is also coded in the appropriate section(s) of B04.
2013

B04-Q03 **Synthetic polymer-drug conjugates**
Also includes drug conjugates with polysaccharides. The polymer/ polysaccharide is additionally coded in B04.
2013

B04-Q04 **Nucleic acid-drug conjugates**
Applied when both subcodes would be used or when the nucleic acid portion is ambiguously defined. The nucleic acid is additionally coded in section B04-B03 and/or B04-E.
2017

B04-Q04A **. Oligonucleotide-drug conjugates**
The oligonucleotide is additionally coded in section B04-B03.
2025

B04-Q04B **. Polynucleotide-drug conjugates**
The polynucleotide is additionally coded in section B04-E.
2025

B04-Q05 **Proteolysis targeting chimera**
Protac(RTM). To be searched alongside the relevant Section B chemical structure codes.
2025

B04-R **BIOSIMILARS**
Includes biobetters. Search in conjunction with relevant B-code(s) for the biosimilar product. Applicable only for explicitly claimed biosimilars.
2016

B05 MISCELLANEOUS

This section covers all inorganic compounds, and also all organic compounds containing elements other than H, C, N, O, S and halogens (other than the exceptions given in the notes). The order of priorities for this group is generally B01A-B02C >> A01A >> A01B >> C01-C08 (e.g. sodium phosphate is only coded as B05-B02A3). The exception to the above is when the anion (of the lower priority) of a metal salt is an important factor in the invention, e.g. effervescent compositions containing sodium bicarbonate are coded B05-C04 and not B05-A01B. Fullerenes and metallocenes are not within the above hierarchy. Sub-group A elements (i.e. metals) when used as salts of organic compounds, are only coded in B05 if the metal is an essential limiting factor of the invention. Otherwise the compound is coded under the parent compound (i.e. acid, alcohol, etc.).

B05-A **METALS AND COMPOUNDS**

B05-A01 **Group 1, 2, 3 general**
retired subheading, may not be applied in B
1963-1965

B05-A01A **. Potassium**
This code is not used for organic compounds unless potassium is an essential pharmaceutically active limiting factor of the invention (e.g. K salts used for treating hypokalemia).
1965

B05-A01B **. Group 1a, 2a, 3a excluding K, B, Ra**
This code is not used for organic compounds unless the metal is an essential pharmaceutically active limiting factor of the invention.
1965

B05-A02 **Group 4a, 5a excluding C, Si, N, P, As**

B05-A03 **Transition metals, lanthanides and actinides general**
The generic code B05-A03 is only used for general disclosures which would otherwise require several specific codes. Thus when a specific code is searched the corresponding generic code must also be searched.

B05-A03A **. Manganese (Mn), iron (Fe), copper (Cu), zinc (Zn), mercury (Hg)**
1975

B05-A03A1 **.. Manganese (Mn) compounds**
2005

B05-A03A2 **.. Iron (Fe) compounds**
2005

B05-A03A3 **.. Copper (Cu) compounds**
2005

B05-A03A4 **.. Zinc (Zn) compounds**
2005

B05-A03A5 **.. Mercury (Hg) compounds**
2005

B05-A03B **. Others**
1975

B05-A03B1 **.. Titanium (Ti)**
2008

B05-A03B2 **.. Silver (Ag)**
2008

B05-A03B3 **.. Platinum (Pt)**
2008
Previous code(s): B05-A03B

B05-A04 **Radioactive elements and specific isotopes**

B05-A04A **. Deuterium**
2007

B05-A04B **. Tritium**
2007

B05-A04C **. Carbon isotopes**
Excludes Carbon-12
2007

B05-A04D **. Iodine isotopes**
Excludes Iodine-127
2007

B05-A04E **. Other radioactive isotope**
2007

B05-A04F **. Other non-radioactive isotope**
2007

B05-A05 **Alloys**
May be coded in conjunction with additional codes from B05-A when the constituent metals are known.
2018

B05-A06 **Metal chelates**
Both the metal and the chelating agent(s) are also coded.
2019

B05-B **LESS COMMON NON-METALS AND COMPOUNDS**

B05-B01 **Boron(B), silicon (Si), arsenic (As), selenium (Se), phosphorus (P) organic general**
1963-1965

B05-B01A **. Boron (B) organic**
1965

B05-B01B . **Silicon (Si) organic**
1965

B05-B01C . **Arsenic (As) organic**
1965

B05-B01D . **Selenium (Se), Tellurium (Te), organic**
1965

B05-B01E . **P-C bond heterocyclic**
1965

B05-B01F . **P-C bond aromatic**
1965

B05-B01G . **P-C bond (cyclo)aliphatic**
1965

B05-B01H . **P-Hal bond organic**
1965

B05-B01J . **P-N bond heterocyclic**
1965

B05-B01K . **P-N bond aromatic**
1965

B05-B01L . **P-N bond (cyclo)aliphatic**
1965

B05-B01M . **P-O(S) bond heterocyclic**
1965

B05-B01N . **P-O(S) bond aromatic**
1965

B05-B01P . **P-O(S) bond (cyclo)aliphatic**
1965

B05-B02 **B, Si, As, Se, P inorganic, inert gases**
1963-1965

B05-B02A . **P and inorganic P compounds general**
The generic code B05-B02A is only used for general disclosures which would otherwise require several specific codes. Thus when a specific code is searched the corresponding generic code must also be searched.
1965

B05-B02A1 .. **P acids production**
1975

B05-B02A2 .. **Ammonium salts of P acids**
This code is used also for mixtures containing only ammonium salts of P acids.
1975

B05-B02A3 .. **P and inorganic P compounds**
1975

B05-B02B . **Arsenic (As) inorganic**
1965

B05-B02C . **Silicon (Si), selenium (Se), tellurium (Te), boron (B) inorganic, inert gases**
1965

B05-C **MORE COMMON NON-METALS, COMPOUNDS**

B05-C **General**

B05-C01 **N (ammonia) inorganic**
After CPI Week 7501 ammonium salts of phosphorus acids have been coded B05-B02A2.
1965

B05-C02 **N (nitrate) inorganic**
1965

B05-C03 **N (others) inorganic**
1965

B05-C04 **CO2, inorganic (bi)(thio)carbonates**
1965

B05-C05 **Inorganic S acids, S oxides**
1965

B05-C06 **Elemental C or S**
1965

B05-C07 **Inorganic compounds containing halogen**
This code is not used for organic compounds unless a halogen is a member of a heterocyclic ring, or forms a part of an anion, and is an essential pharmaceutically active limiting factor of the invention (e.g. HF salts of amines used as dental agents).
1965

B05-C08 **Others**
1965

B05-U **FULLERENE TYPE CAGE STRUCTURES**
1994

B05-U **General**
1994

B05-U01 **Other than carbon only**
1994

B05-U02 **Carbon only**
1994

B05-U03 **Carbon only nanotubes**
2005

B05-U04 **Carbon plus heteroatom nanotubes**
2005

B05-U05 **Other carbon containing 3-D structures**
2005

B05-U05A . **Nanotubes, nanorods, nanohorns**
2010

B05-U05B . **Nanofilms**
2010

B05-U05C	**. Nanostructures other than those covered by B05-U05A and B05-U05B** **2010**
B05-U06	**Inorganic nanostructures** **2005**
B05-V	**METALLOCENES** **2008**
B05-V	**Metallocenes** e.g. ferrocenes, titanocenes, zirconocenes **2008** *Previous code(s): B05+*
B05-Z	**ORGANOMETALS** **2015**
B05-Z	**Organometal compounds** Metals/metalloids present in organic compound, excludes B, Si, As, Se, Te and P. To be searched alongside specific codes for relevant metal(s). **2015**

B06 HETEROCYCLIC FUSED RING

This section is used for fused heterocyclic rings containing C and any of O, S and N. If any other elements are present, the structure is coded in B05. The specific rings listed in this section include all reduced derivatives and tautomers, unless specifically excluded.

Specific ring systems present in a disclosed and claimed compound are individually coded, but if there is an essential fused heterocyclic ring and either an optional or a variable fused heterocyclic ring, only the essential ring is coded and neither the variable ring nor B06-H. The exception to this is in a composition with a single new/used/produced compound having one essential fused heterocyclic ring and other components with various fused heterocycles - both the specific and B06-H are then coded.

B06-A	**SOLE HETERO(S) OXYGEN**
B06-A01	**1-Benzo-(furan or pyran)**
B06-A02	**Others with 2 rings** (e.g. phenolphthalein)
B06-A03	**With more than 2 rings**
B06-A03A	**. Taxols, taxels** e.g. paclitaxel, docetaxel. Must contain an oxetane ring fused to the taxane skeleton **2006, 2010**
B06-B	**SOLE HETERO(S) SULPHUR**
B06-B01	**With 2 rings**
B06-B02	**With more than 2 rings**
B06-C	**SOLE HETEROS O AND S**
B06-C	**General**
B06-D	**SOLE HETERO(S) NITROGEN**
B06-D01	**Indole**
B06-D02	**Quinoline**
B06-D03	**Isoindole, isoquinoline**
B06-D04	**Others with 2 rings and one N**
B06-D05	**With 2 rings (5+6 membered) and two N**
B06-D06	**With 2 rings (both 6 membered) and two N**
B06-D07	**Others with 2 rings and two N**
B06-D08	**With 2 rings and 3 N**
B06-D09	**With 2 rings and 4 N**

B06-D10	**With 2 rings and > 4 N**
B06-D11	**Acridine**
B06-D12	**Dibenzo[b,f]azepine**
B06-D13	**Others with 3 rings and one N**
B06-D14	**Phenazine**
B06-D15	**Carbolines, phenanthrolines**
B06-D16	**Others with 3 rings and two N**
B06-D17	**With 3 rings and > 2N**
B06-D18	**With more than 3 rings**
B06-E	**SOLE HETEROS O AND N**
B06-E01	**Benzoxazole, benzisoxazoles**
B06-E02	**Benzoxazines**
B06-E03	**Others with 2 rings**
B06-E04	**Phenoxazine**
B06-E05	**Others with more than 2 rings**
B06-F	**SOLE HETEROS S AND N**
B06-F01	**Benzothiazole, benzisothiazoles**
B06-F02	**Benzothiazines**
B06-F03	**Others with 2 rings**
B06-F04	**Phenothiazine**
B06-F05	**Others with more than 2 rings**
B06-G	**SOLE HETEROS O AND S AND N**
B06-G	**General**
B06-H	**FUSED RING, GENERAL** This code is used for general disclosures when either unspecified fused heterocyclic ring is present or several specific rings are present. Therefore when a specific code is searched, the corresponding generic code must also be searched.
B06-H	**General**
B06-S	**SPIROFUSED FUSED HETEROCYCLES** This code is to be applied in conjunction with specific ring code(s) from B06.
B06-S	**Spirofused fused heterocycles** **2011**

B07 HETEROCYCLICS, MONONUCLEAR

This section is used for monoheterocyclic rings containing C and any of O, S and N. If any other elements are present, the structure is coded in B05 only. Likewise, when a fused heterocyclic ring is present, the structure is coded in B06 only. The specific rings listed in this section include all reduced derivatives and tautomers, unless specifically excluded.

Specific ring systems present in a disclosed and claimed compound are individually coded, but if there is an essential monoheterocyclic ring and either an optional or a variable monoheterocyclic ring, only the essential ring is coded and neither the variable ring nor B07-H. The exception to this is in a composition with a single new/used/produced compound having one essential monoheterocyclic ring and other components with various monoheterocycles - both the specific and B07-H are then coded.

B07-A	**SOLE HETERO(S) OXYGEN**
B07-A01	**Furan excluding tetrahydrofuran**
B07-A02	**Tetrahydro-(furan or pyran) general**
B07-A02A	. **Tetrahydrofuran** **1994** *Previous code(s): B07-A02*
B07-A02B	. **Tetrahydropyran** **1994** *Previous code(s): B07-A02*
B07-A03	**Others with one O** Including pyran.
B07-A04	**With more than one O**
B07-B	**SOLE HETERO(S) SULPHUR**
B07-B01	**Thiophene**
B07-B02	**Others with one S**
B07-B03	**Others with more than one S**
B07-C	**SOLE HETEROS O AND S**
B07-C	**General**
B07-D	**SOLE HETERO(S) NITROGEN**
B07-D01	**With one N, 3 or 4 membered**
B07-D02	**Pyrrole** Excluding pyrrolidine.
B07-D03	**Pyrrolidine**
B07-D04	**Pyridine general** Excluding piperidine.

B07-D04A **. (Hydro)pyridinium N(V)**
1986

B07-D04B **. Pyridine (optionally substituted) production**
1986

B07-D04C **. Pyridine (optionally substituted) use**
1986

B07-D04D **. Di- and tetrahydropyridine (optionally substituted)**
1986

B07-D05 **Piperidine**

B07-D06 **With one N, > 6-membered**

B07-D07 **With > one N, < 5-membered**

B07-D08 **Pyrazole**

B07-D09 **Imidazole**

B07-D10 **Pyr(id)azine**
Excluding piperazine.

B07-D11 **Piperazine**

B07-D12 **Pyrimidine**

B07-D13 **Others with more than one N**

B07-E **SOLE HETEROS O AND N**

B07-E01 **With one O and one N < 6-membered**

B07-E02 **Oxazines**
Excluding morpholine.

B07-E03 **Morpholine**

B07-E04 **Others**

B07-F **SOLE HETEROS S AND N**

B07-F01 **With one S and one N < 6-membered**

B07-F02 **Thiazines**

B07-F03 **Others**

B07-G **SOLE HETEROS O AND S AND N**

B07-G **General**

B07-H **MONONUCLEAR HETEROCYCLICS GENERAL**
This code is used for general disclosure when either unspecified monoheterocyclic ring system is present in the molecule, or several rings are present. Therefore the generic code must be searched every time when a specific code is searched.

B07-H **Heterocyclic ring general**

B07-H01 **Ring linked directly to -C(=O)-, -C(=S)-, -C(=N-)- or -CN**
1975

B07-H02 **Ring linked directly to heteroatom**
1975

B07-H03 **Ring linked via aliphatic chain only to heteroatom, -C(=O)-, -C(=S)-, -C(=N)- or CN**
1975

B07-H04 **Other rings**
1975

B07-S **SPIROFUSED MONOCYCLIC HETEROCYCLES**
This code is to be applied in conjunction with specific ring code(s) from B07.

B07-S **Spirofused fused heterocycles**
2011

B08 AROMATICS, POLYCARBOCYCLIC

This section covers compounds containing more than two carbocyclic rings fused together, at least one of which is 6- membered with 3 conjugated double bonds (or quinone derivatives thereof). Mono- and bicyclo-aromatics are coded in B10.

B08-A	**At least 6 rings fused**
B08-B	**Five rings fused**
B08-C	**4 RINGS FUSED**
B08-C01	**6:6:6:6 carbon atoms per ring**
B08-C02	**Others**
B08-D	**3 RINGS FUSED**
B08-D01	**6:6:7 carbon atoms per ring**
B08-D02	**6:6:6 carbon atoms per ring**
B08-D03	**Others**
B08-H	**FUSED AROMATIC SYSTEM GENERAL** **2002**
B08-S	**SPIROFUSED POLYCYCLIC AROMATIC RINGS** This code is to be applied in conjunction with specific ring code(s) from B08.
B08-S	**Spirofused polycyclic aromatic rings** **2011**

B09 ALICYCLICS, POLYCARBOCYCLIC

This section covers compounds containing more than two carbocyclic rings fused together, other than aromatics (see B08). Mono- and bicyclic compounds are coded in B10.

B09-A	**At least 6 rings fused**
B09-B	**Five rings fused**
B09-C	**4 RINGS FUSED**
B09-C01	**6:6:6:6 carbon atoms per ring**
B09-C02	**Others**
B09-D	**3 RINGS FUSED**
B09-D01	**6:6:6 carbon atoms per ring**
B09-D02	**Others**
B09-H	**FUSED ALICYCLIC SYSTEM GENERAL** **2002**
B09-S	**SPIROFUSED POLYCYCLIC ALICYCLIC RINGS** This code is to be applied in conjunction with specific ring code(s) from B09.
B09-S	**Spirofused polycyclic alicyclic rings** **2011**

B10 AROMATICS AND CYCLOALIPHATICS (MONO AND BICYCLIC ONLY), ALIPHATICS

In this section compounds are coded according to the type of functional group present. Only one code is assigned to a specific compound according to the rule of priorities: A > B > C, and 1 > 2 > 3 etc. Thus B10-A01 is the highest, and B10-J02 the lowest priority code. For acidic or basic salts see the parent compounds (i.e. amines, acids, etc.). For all cyclic derivatives of the groups listed in section B10 see B01 to B07. For groups not listed in section B10, e.g. semicarbazone, the highest priority segment is coded, in this case as B10-A13D.

B10-A **RARER CHEMICAL GROUPS GENERAL**
Oxygen atoms may be replaced by S, where applicable.

B10-A01 **Sulfonium, iodonium, free radicals, carbonium, oxonium, etc.**

B10-A02 **Halogen bonded to Hal, N or O**
For halides of acids other than carboxylic (B10-A25) or those containing N-X or O-X (X = halogen) bond (B10-A02) the parent acid is coded. For example a sulfenyl halide is coded B10-A09C, a chloroformate B10-A11B and a carbamoyl halide B10-A12C.

B10-A03 **Nitrogen oxide, nitroso**
Includes nitramines

B10-A04 **Peroxide, polysulfide**
Also includes hydroperoxides

B10-A05 **Nitrate, nitrite**

B10-A06 **Quinone**
Including all derivatives except those with higher priority.

B10-A07 **Sugar**
Only 4 or more carbon monosaccharides with a free keto or aldehyde group together with their oxidised, reduced and substituted derivatives code here. Sugars in which at least one of the aldehyde / keto groups have been converted into an acetal / ketal (i.e. exist in cyclic form) code in B07-A02.

B10-A07A . **Unmodified sugars**
Includes ethers and esters thereof. 7 or more carbons are coded B10-A07E.
2005

B10-A07B . **Sugar alcohols**
Includes ether and ester derivatives. Derivatives in which one or two of the hydroxy groups have been replaced by N additionally code B10-A07D. Derivatives in which one or two of the hydroxy groups have been replaced by atoms other than H or N (including 7 or more carbon sugar alcohols) additionally code B10-A07E. Inositol is coded B10-E04A.
2005

B10-A07C . **Sugar acids**
Includes ether and ester derivatives. Derivatives in which one or two of the hydroxy groups have been replaced by N additionally code B10-A07D. Derivatives in which one or two of the hydroxy groups have been replaced by atoms other than H or N (including 7 or more carbon sugar acids) additionally code B10-A07E. Uronic acids which contain a free aldehyde or keto group (even if represented as a cyclic hemi-acetal in the source material) code here but those in which the hemi-acetal OH has been converted into an ether or ester code in B07-A02. Lactones of sugar alcohols code in the B07-A section.
2005

B10-A07D . **Sugar amines**
Used for 4 or more carbon monosaccharides with a free aldehyde or keto group (even if represented as a cyclic hemi-acetal in the source material) or an oxidised or reduced derivative thereof in which one or two of the O atoms have been replaced by nitrogen. If the sugar contains 7 or more carbons it additionally codes B10-A07E. If the sugar is an oxidised sugar it additionally codes B10-A07C. If the sugar is a reduced sugar it additionally codes B10-A07B.
2005

B10-A07E . **Other sugar derivatives**
Used for 4 or more carbon monosaccharides with a free aldehyde or keto group (even if represented as a cyclic hemi-acetal in the source material) or an oxidised or reduced derivative thereof in which one or two of the O atoms have been replaced by atoms other than H, or N. Additionally all 7 or more carbon non-cyclic monosaccharides code here. If the sugar is an oxidised sugar it additionally codes B10-A07C. If the sugar is a reduced sugar it additionally codes B10-A07B.
2005

B10-A08 **Amide of sulfur acid**

B10-A09 **Sulfur acid**
1963-1965

B10-A09A . **(Thio)Sulfuric(ous) acid**
Including all derivatives except those with higher priority.
1965

B10-A09B . **(Thio)Sulfonic acids general**
Including all derivatives except for those with higher priority.
1965

B10-A09C . **Other S acids**
Including all derivatives except those with higher priority.
1965

B10-A10 **Sulfone, sulfoxide**

B10-A11 **Carbonate general**
1963-1965

B10-A11A . **Thiocarbonic acid**
Including all derivatives except those with higher priority.
1965

B10-A11B . **Carbonic acid**
Includes haloformates.
1965

B10-A12 **Carbamate general**
1963-1965

B10-A12A . **Dithiocarbamic acid**
Including all derivatives except those with higher priority.
1965

B10-A12B . **Monothiocarbamic acid**
Including all derivatives except those with higher priority.
1965

B10-A12C . **Carbamic acid**
Including all derivatives except those with higher priorities.
1965

B10-A13 **Urea, isourea general**
1963-1965

B10-A13A . **(Iso)thiourea**
1965

B10-A13B . **(Iso)urea general**
Generic codes are only used for general disclosures which would otherwise require several specific codes. When a specific search is made, the corresponding generic code must also be searched.
1965

B10-A13C . **Unsubstituted urea**
1975

B10-A13D . **Other (iso)urea compounds**
1975

B10-A14 **(Iso)cyanate, thiocyanide**

B10-A15 **(Iso)cyanide**

B10-A16 **Azide, azo diazo(nium)**

B10-A17 **Biguanide, guanidine, amidine**

B10-A18 **Hydroxylamine**
Hydroxylamine itself is coded B05-C03.

B10-A19 **Hydrazine**
Hydrazine itself is coded B05-C03.

B10-A20 **Imine**

B10-A21 **Quaternary ammonium (bis or poly)**
When a patent claims amines and their quaternary ammonium salts, only the amines are coded. Two searches must be made in order to obtain all relevant quaternary ammonium compounds.

B10-A22 **Quaternary ammonium (mono)**

B10-A23 **Acetal, ketal**

B10-A24 **Imide**

B10-A25 **Acid anhydride, halide (carboxylic only)**
For halides of acids other than carboxylic (B10-A25) or those containing N-X or O-X (X = halogen) bond (B10-A02) the parent acid is coded. For example a sulfenyl halide is coded B10-A09C, a chloroformate B10-A11B and a carbamoyl halide B10-A12C.

B10-B **AMINES**

B10-B01 **Polyamine general**
1986

B10-B01A . **Polyamines, at least 1 amine aromatic**
1965

B10-B01B . **Polyamines with no amine aromatic**
1965

B10-B02 **Amino-acid, -ester or -amide general**
Oxygen atoms in the acid/ester/amide portion may be replaced by S where applicable.
1986

B10-B02A . **Amino-acid, -ester or -amide (amine aromatic)**
1965

B10-B02B . **Amino-acid, -ester or amide (amine not aromatic) general**
1965

B10-B02C . **Mixtures containing at least 3 naturally occurring amino acids**
1975

B10-B02D . **Sulfur-containing amino acids**
Including amides and esters of the acid group(s).
1975

B10-B02E . **Ring-containing amino acid with free acid group or salt**
1975

B10-B02F . **Ring-containing amino amide**
1975

B10-B02G . **Ring-containing amino ester**
1975

B10-B02H . **Optionally esterified or etherified hydroxy amino acids**
Including amides and esters of the acid group(s).
1975

B10-B02J . **Other amino acids**
Including amides and esters of the acid group(s).
1975

B10-B03 **Amino-phenol,-alcohol or ether general**
Oxygen atoms may be replaced by S, where applicable.
1986

B10-B03A . **Amino-phenol, -alcohol or -ether (amine aromatic)**
1971

B10-B03B . **Amino-phenol, -alcohol or -ether (amine not aromatic)**
1971

B10-B04 **Amine mono, general**
1986

B10-B04A . **Other aromatic amines**
1971

B10-B04B . **Other non-aromatic amines**
1971

B10-C **CARBOXYLIC ACIDS**

B10-C01 **Thiocarboxylic acid**

B10-C02 **Polycarboxylic acid**

B10-C03 **Carboxylic acid and phenol present**
Or phenolic ester or ether. Oxygen atoms may be replaced by S.

B10-C04 **Other carboxylic acids general**

B10-C04A . **Carboxylic acid and cycloaliphatic system present**
1975

B10-C04B . **Hydroxy, aldehyde or keto carboxylic acid and carbocyclic aromatic ring system present**
Including esters and ethers (of hydroxy) and thio derivatives.
1975

B10-C04C . **Other carboxylic acid and carbocyclic aromatic ring system present**
1975

B10-C04D . **Acyclic hydroxy**
Including acyclic ether (of hydroxy) and thio derivatives.
1975

B10-C04E . **General acyclic monocarboxylic acid**
General acyclic monocarboxylic acid (not substituted by hydroxy, aldehyde, keto or their ethers and/or thio derivatives).
1975

B10-C04E1 .. **Substituted acyclic monocarboxylic acid**
2006

B10-C04E2 .. **Polyunsaturated fatty acid**
2006

B10-C04E3 .. **Monounsaturated fatty acid**
2006

B10-C04E4 .. **Other unsaturated monocarboxylic acid**
2006

B10-C04E5 .. **Saturated fatty acid**
2006

B10-C04E6 .. **Other saturated monocarboxylic acid**
2006

B10-D **ALDEHYDES AND CARBOXYLIC AMIDES**
Oxygen atoms may be replaced by S, where applicable. These generic codes are only used for general disclosures which would otherwise require several specific codes. When a specific search is made, corresponding generic codes must also be searched.

B10-D01 **Aldehydes**

B10-D02 **Carboxylic amide, thio**

B10-D03 **Carboxylic amides**

B10-E **HYDROXY COMPOUNDS**
Oxygen atoms may be replaced by S, where applicable.

B10-E01 **Thiophenols**

B10-E02 **Phenols**

B10-E03 **Thioalcohols**

B10-E04 **Alcohols general**
Generic codes are only used for general disclosures which would otherwise require several specific codes. When a specific search is made, the corresponding generic codes must also be searched.

B10-E04A **. Alcohols containing hydroxy attached directly to alicyclic ring**
Including inositol.
1975

B10-E04B **. Alcohols containing carbocyclic ring(s)**
1975

B10-E04C **. Polyalcohols and ethers and esters thereof**
1975

B10-E04D **. Other alcohols**
1975

B10-F **KETONES**

B10-F01 **Thioketones**

B10-F02 **Ketones**

B10-G **CARBOXYLIC ESTERS AND NITRO**
Oxygen atoms may be replaced by S, where applicable.

B10-G01 **Thiocarboxylic esters**

B10-G02 **Carboxylic esters**

B10-G03 **Nitro**

B10-H **ETHERS AND HALOGENS**
Oxygen atoms may be replaced by S, where applicable.

B10-H01 **Ethers**

B10-H02 **Halogen general**
1986

B10-H02A **. F linked to aromatic ring**
1965

B10-H02B **. F not linked to aromatic ring**
1965

B10-H02C **. Br or I linked to aromatic ring**
1965

B10-H02D **. Br or I not linked to aromatic ring**
1965

B10-H02E **. Cl linked to aromatic ring**
1965

B10-H02F **. Cl not linked to aromatic ring**
1965

B10-J **HYDROCARBONS**

B10-J01 **-C≡C- may form part of alicyclic ring**
1965

B10-J02 **Others**
1965

B10-J02A **. Terpenes or terpenoids**
General terpenes or terpenoids of purely hydrocarbon content.
2013

B11 PROCESSES, APPARATUS

B11 codes are only used when the inventive feature of the patent cannot be completely described in terms of chemical descriptors in B01 to B10. Test **methods** must be claimed for B11 codes to be applied, i.e. if a compound can be used as a reagent but the test is not claimed, only B12-K04+ codes are applied.

B11-A **FERMENTATION GENERAL**
Includes fermentation process where microorganisms are not specified
2012

B11-A01 **Using microorganisms**
1994

B11-A01A . **Using bacteria**
2006
Previous code(s): B11-A01

B11-A01B . **Using viruses**
2006
Previous code(s): B11-A01

B11-A01C . **Using fungi**
2006
Previous code(s): B11-A01

B11-A02 **Using enzymes**
1994

B11-A02A . **Using oxidoreductases general**
2006

B11-A02A1 .. **Using oxidases**
2006

B11-A02A2 .. **Using peroxidases**
2006

B11-A02A3 .. **Using oxygenases**
2006

B11-A02A4 .. **Using dehydrogenases, reductases**
2006

B11-A02A5 .. **Using lipoxygenases**
2006

B11-A02B . **Using transferases general**
2006

B11-A02B1 .. **Using DNA/RNA polymerases**
2006

B11-A02B2 .. **Using reverse transcriptases**
2006

B11-A02B3 .. **Using kinases**
2006

B11-A02C . **Using hydrolases general**
2006

B11-A02C1 .. **Using esterases**
2006

B11-A02C2 .. **Using glycosidases**
2006

B11-A02C3 .. **Using proteases/peptide hydrolases**
2006

B11-A02D . **Using lyases**
2006

B11-A02E . **Using isomerases**
2006

B11-A02F . **Using ligases**
2006

B11-A03 **Using algae**
2010

B11-A04 **Fermentation apparatus**
Apparatus or device for culturing microorganisms e.g. culturing device of alimentary canal nematodes.
2012

B11-A04A . **Cell/tissue culture apparatus**
Method and apparatus for culturing and processing of biological cells excluding tissue engineering (coded B11-C04G) e.g. animal cells and other microbial cells.
2014

B11-B **EXTRACTION, SEPARATION, RECOVERY, PURIFICATION, CRYSTALLISATION**
If part of a diagnostic process see B11-C08D.

B11-B01 **Separation of stereoisomers by a biological method**
2006

B11-B02 **Separation of stereoisomers by other method**
2006

B11-B03 **Other separation**
Includes extraction of specific substances from natural products.
2006

B11-B03A . **Method or device for separation of biological molecules**
Includes methods or devices for extraction of biological substances such as proteins and nucleic acids.
2012

B11-B03B . **Device/methods for concentrating of molecules**
Includes techniques involving concentrating procedure and distillation process, only for use when the Novelty of the invention.
2013

B11-B03C **. Method or device for extraction of active substances from plant**
Patents dealing with extraction of active agents from plants.
2016

B11-B03D **. Method or device for extraction of active substance from animals, arthropods**
Extraction of active substance from animals, arthropods, etc.
2021

B11-B04 **Method or device for removal processes**
A means of destroying or collecting for subsequent safe disposal of harmful / noxious substances. Substance removed and removing agent are additionally coded, even if they only appear in an example.
2006

B11-B05 **Method or device for preservation and/or storage**
Includes devices as well as methods for preservation and storage relating to preservation. General storage containers are coded in B11-C06.
2009

B11-B06 **Method or device for cleaning and/or sterilization**
Method or device for cleaning and/or sterilization, such as for medical equipment.
2010

B11-C GENERAL PROCESS, APPARATUS

B11-C01 **General chemical processes**
1971

B11-C01A **. Combinatorial chemistry**
2002

B11-C01A1 **.. Library synthesis**
Used when the patent is describing a technique for producing, rather than using a combinatorial library.
2005

B11-C01A2 **.. Liquid-phase synthesis**
Process in which the chemical building blocks are present in solution.
2005

B11-C01A3 **.. Solid-phase synthesis**
Process in which the chemical building blocks are bound to a polymer.
2005

B11-C01A4 **.. Parallel synthesis**
Process in which each separate starting material is present in a different well of a microarray and the reagent is added simultaneously to all wells so each product is present in a different well.
2005

B11-C01A5 **.. High-volume synthesis**
Process in which very large numbers of compounds are produced from a large variety of starting materials.
2005

B11-C01B **. Apparatus for combinatorial chemistry**
2002

B11-C01C **. Other processes**
2002

B11-C01C1 **.. Stereospecific reactions**
2006

B11-C01C2 **.. Stereoselective reactions**
2006

B11-C01C3 **.. Racemisation**
2012

B11-C01D **. Stereochemistry**
Includes geometrical isomers.
2006

B11-C01E **. Amplification apparatus/processes for production**
From 2011, the scope of this code has been extended to cover amplification apparatus for production in addition to processes for the same.
2007
Previous code(s): B11-A02B1

B11-C02 **Syringes**
Also includes filling/loading of syringes.
1971

B11-C02A **. Hypodermic syringes**
Includes multi-use as well as single-use and moulded disposable syringes.
2005

B11-C02B **. Needles**
Should cover all needles, not just those for syringes. Not for microneedles – these are coded under B12-M02F instead.
2005

B11-C02C **. Syringe components**
2006

B11-C02D **. Syringe/injector disposal apparatus**
Covers disposal of all injectors, not just syringes. Also includes syringe needle removing devices and sharps container.
2006

B11-C03 **Dispensers**
1971

B11-C04 **Machine/device/method for use in/on animal body, general**
From 2010, the scope of this code has been extended to cover methods used for therapeutic purposes on animal or human body in addition to machines and devices for the same. This code can be applied to condoms, external splints, infra-red heat massagers etc, however such items should either contain, be coated with or be used in conjunction with drugs in order for them to be coded in B and/or C.
1971

B11-C04A **. Implant**
1977

B11-C04A1 **.. Stent**
2006

B11-C04B **. Catheter**
Includes cannula.
1977

B11-C04C **. Injection gun, general**
2005

B11-C04D **. Applicator**
2005

B11-C04E **. Needle-free injector**
A syringe type device that uses applied pressure to inject the drug through the skin, and particularly into the gums during dental procedures.
2005

B11-C04F **. Artificial organs**
Including heart-lung machines, kidney dialysis equipment, pacemakers and artificial livers and skin. Includes production of these organs. Not to be confused with Prosthesis (coded B12-M17) or Implants (coded B11-C04A).
2005

B11-C04G **. Tissue engineering technologies**
Includes wound care technologies, stem cell therapeutic applications, and tissue and organ production (e.g. by inkjet printers and tissue scaffolds).
2007

B11-C04H **. Adaptors, fixing devices, seals**
Used for e.g. attaching tubes to syringes, attaching catheter tubes to supports.
2009

B11-C04J **. Cements, putties**
Includes bone cement etc.
2010

B11-C04K **. Bioelectronics and neurostimulation**
Includes electroceuticals. May also be searched with B14-S27
2015

B11-C04Z **. Non-pharmaceutical alternative therapies**
Includes therapies such as music therapy, laughter therapy, heat therapy, acupuncture and reiki. Does not include electrical or electromagnetic therapies which are coded in B14-S27 with additionally B11-C04 if the apparatus is also claimed.
2012

B11-C05 **Process/ apparatus for producing pharmaceutical, veterinary or agricultural composition**
Includes tabletting machines. Also covers any process for producing drugs or their intermediate products e.g. drug mixer, device for drying a drug, device for crushing a drug.
1971

B11-C06 **Containers, packing, preserving apparatus, storage tanks, transporting apparatus general**
1975

B11-C06A **. Closures, caps**
1977

B11-C06B **. Formulation counting/measuring devices**
e.g. tablet counting machines, cylinders for measuring solutions, weighing devices.
2009

B11-C06C **. Peripheral devices for therapeutic regimens**
Includes stands for e.g. infusion devices, tamper alarms.
2010

B11-C06D **. Labels and labeling devices**
2011

B11-C06E **. Temperature regulation apparatus**
2012

B11-C06Z **. Safety and tamper-proof devices/methods**
Applied with one or more other codes from B11-C02, B11-C03, B11-C04 and/or B11-C06. Includes methods and devices to improve patient safety e.g. alarms for incorrect operation of dispensers. Safety caps, previously coded only in B11-C06A, also now coded here.
2017

B11-C07 **Antibody-antigen reaction, precipitation tests; colorimetric, fluorescence, radioactive tracer tests, general**
B11-C07+ and B11-C08+ codes are applied when diagnosis/testing process forms a novel part of an invention.
1975

B11-C07A **. Antigen - antibody reaction general**
Excluding B11-A.
1977

B11-C07A1 **.. Production of antigen for test**
1986

B11-C07A2 **.. Antigen or antibody bound to colour tracer**
1986

B11-C07A3 **.. Antigen or antibody bound to radioactive tracer**
1986

B11-C07A4 **.. Antigen or antibody bound to enzyme tracer**
1986

B11-C07A5 **.. Antigen or antibody bound to fluorescent or chemiluminescent tracer**
1986

B11-C07A6 **.. Antigen or antibody bound to other type of carrier**
e.g. erythrocytes, glass, polymer.
1986

B11-C07A7 **.. Apparatus for antigen-antibody reaction, where the antigen or antibody type or carrier are irrelevant to the invention**
1986

B11-C07B **. Colorimetric tests**
Including fluorescence (excluding B11-C07A).
1977

B11-C07B1 **.. Colorimetric (detection of colour change in a reagent)**
1986

B11-C07B2 **.. Spectrophotometric**
1986

B11-C07B3 **.. Fluorescence**
1986

B11-C07B4 **.. Chemiluminescence**
1986

B11-C07B5 **.. Radioactive tracer other than B11-C07A3**
1986

B11-C07B6 **.. Reflectance, light scattering etc.**
2005

B11-C07B7 **.. Apparatus for colorimetric analysis where the apparatus is the novelty of the invention**
2009

B11-C08 **Other methods/apparatus for testing/detection**
Including new drug screening systems.
1975

B11-C08A **. NMR, mass spectroscopy**
Excluding NMR, mass spectroscopy for gene/protein analysis which is coded under B11-C08G2.
1986

B11-C08B **. Potentiometry, polarography**
1986

B11-C08C **. Sampling device and sampling method for testing**
From 2010, the scope of this code has been extended to cover methods of sampling in addition to devices for the same. Includes both devices and method of sampling, wherein the method of collecting samples is for test and detection purposes.
1986

B11-C08C1 **.. Microfluidic devices**
2007

B11-C08C2 **.. Manipulation of samples**
Includes methods or devices for treating biopsy or smear samples to make them easier to view.
2014

B11-C08D **. Separation methods of testing and diagnosis general**
Other than B11-B.
1986

B11-C08D1 **.. Electrophoresis**
1986

B11-C08D2 **.. Chromatography, ion exchange**
Including High Performance Liquid Chromatography (HPLC).
1986

B11-C08D3 **.. Filtration, centrifugation, sedimentation, dialysis**
1986

B11-C08E **. Biological procedures for testing general**
Other than B11-A and B11-C07A.
1986

B11-C08E1 **.. Fermentation of micro-organisms, cell or tissue culture**
e.g. testing antibiotics by cultivation of microorganisms.
1986

B11-C08E2 **.. Noting physiological responses in animals or plants/modelling diseases**
e.g. increased activity, change of habit. This code is applied only when the test is the main inventive feature.
1986

B11-C08E3 **.. Enzyme processes other than polarography or enzyme labelling**
Excluding B11-C07A, but including the use of restriction enzymes (endonucleases) and the polymerase chain reaction (PCR). For more specifically described PCR methodologies, up to three additional codes from subsection B11-C08N may be appended (from update 202201).
1986

B11-C08E4 **.. DNA sequencing methods**
Other than those involving enzymes.
1994-2018
Previous code(s): B11-C08, B11-C08E3
Now coded as: B11-C08F7A

B11-C08E5 **.. Nucleic acid hybridisation test methods, use of nucleic acid probes**
1994-2018
Previous code(s): B11-C08, B11-C08E3
Now coded as: B11-C08F8

B11-C08E6 **.. Microarrays and biochips**
2002

B11-C08E7 **.. Agonist/antagonist identification**
2005

B11-C08E8 **.. Biosensor**
To be searched alongside the physicochemical and/or biological parts where present.
2016

B11-C08E9 **.. Protein sequencing method**
Code retired 2018, now coded B11-C08F7B. All document records from 2018 containing this code will be changed to reflect the updated hierarchy and B11-C08E9 will no longer be searchable
2018-2018

B11-C08F **. Protein/Gene analysis general**
2002

B11-C08F1 **.. Computational genomics**
2002-2018
Now coded as: B11-C11C1

B11-C08F2 **.. Experimental genomics**
2002

B11-C08F3 **.. Computational proteomics**
2002-2018
Now coded as: B11-C11C2

B11-C08F4 **.. Experimental proteomics**
2002

B11-C08F5 **.. Functional genomics**
2009

B11-C08F6 **.. Functional proteomics**
2009

B11-C08F7 **.. Sequencing methods general**
2019

B11-C08F7A **... DNA/RNA sequencing methods**
2019
Previous code(s): B11-C08, B11-C08E4

B11-C08F7B **... Protein sequencing methods**
Replaces the deleted code B11-C08E9. All affected document records from 2018 will be changed to reflect the updated hierarchy and B11-C08E9 will no longer be searchable
2019

B11-C08F8 **.. Nucleic acid hybridization test methods, use of nucleic acid probes**
2019
Previous code(s): B11-C08, B11-C08E5

B11-C08G **. Structural conformation analyzing method for biomolecules**
Prior to 2011, this code covered structural gene/protein analysis only. From 2011, the scope of this code has been extended to cover structural analysis of all biomolecules. Also includes structural analysis of polysaccharide, nucleic acid, lipid, glycoprotein, glycolipid and RNA molecule.
2002

B11-C08G1 **.. X-ray crystallography**
2002

B11-C08G2 **.. NMR spectroscopy**
2002

B11-C08G3 **.. Electron microscopy**
2002

B11-C08H **. Drug design by computer modelling**
2002

B11-C08J **. Microscopy/ optical processes & apparatus**
2005

B11-C08K **. Other analytical apparatus where the apparatus is the novelty of the invention**
Novel apparatus for colorimetric analysis codes as B11-C07B7.
2009

B11-C08L **. Acoustics**
Includes ultrasound, infrasound and vibration.
2016

B11-C08M **. Calorimetry**
2020

B11-C08N **. Biological testing methodologies**
This code is a section heading only and is not applied to patents. See the relevant B11-C08N sub-codes instead.
2022

B11-C08N1 **.. Thermocycling amplification methods**
For three or more specific sub-codes or for general references to thermocycling methods, only the parent code B11-C08N1 is applied. General references to PCR are searched under B11-C08E3.
2022

B11-C08N1A **... Multiplex PCR**
2022

B11-C08N1B **... Nested PCR**
2022

B11-C08N1C **... Colony PCR**
2022

B11-C08N1D **... Random amplification polymorphism DNA PCR (RAPD-PCR)**
2022

B11-C08N1E **... Simple sequence repeat-anchored PCR (SSR-PCR)**
2022

B11-C08N1F **... Amplified fragment length polymorphism PCR (AFLP-PCR)**
2022

B11-C08N1G **... Amplification of refractory mutation system PCR (ARMS-PCR)**
2022

B11-C08N1H **... Restriction fragment length polymorphism (RFLP)**
2022

B11-C08N1J **... Ligase chain reaction (LCR)**
2022

B11-C08N1K **... Kompetitive allele specific PCR (KASP)**
Includes Includes allele-specific polymerase chain reaction (ASP-PCR). Code additionally fluorescence (B11-C07B3) for PCR.
2024

B11-C08N2 **.. Isothermal amplification methods, general and other**
For three or more specific sub-codes or general references to isothermal methods, only the parent code B11-C08N2 is applied.
2022

B11-C08N2A **... Loop mediated isothermal amplification (LAMP)**
Also includes RT-LAMP.
2022

B11-C08N2B **... Self-sustained sequence replication (3SR)**
2022

B11-C08N2C **... Strand displacement amplification (SDA)**
2022

B11-C08N2D **... Nucleic acid sequence based amplification (NASBA)**
2022

B11-C08N2E **... Rolling circle amplification (RCA)**
2022

B11-C08N2F **... Multiple displacement amplification (MDA)**
Includes Whole Genome Amplification (WGA), Multiple Annealing and Looping Based Amplification Cycles (MALBAC).
2022

B11-C08N2G **... Helicase dependent amplification (HAD)**
2022

B11-C08N2H **... Ramification amplification method (RAM)**
2022

B11-C08N2J **... Recombinase polymerase amplification (RPA)**
2022

B11-C08N3 **.. Real-time analysis**
To be searched alongside the relevant testing and diagnostic codes when this term is referenced in the source document.
2022

B11-C08N4 **.. Rapid analysis**
To be searched alongside the relevant testing and diagnostic codes when this term is referenced in the source document.
2022

B11-C09 **Other processes, appts.**
Processes and apparatus not covered elsewhere in section 11.
1975

B11-C09A **. Processes**
2006

B11-C09B **. Apparatus**
2006

B11-C10 **Screening general**
2002

B11-C10A **. High throughput screening**
2002

B11-C10B **. High content screening**
Whole cell analysis used in drug screening, differs from high-throughput screens which are usually homogenous in vitro assays. Includes analysis of multiple independent or interacting targets in intact cells using e.g. advanced optical imaging systems, fluorescent based reagents and advanced informatics tools. Also includes predictive toxicity and ADME (absorption, distribution, metabolism and excretion) screening.
2005

B11-C10C **. Protein/gene libraries**
Collections of protein or nucleic acid fragments and clones used as a tool in biochemical processes.
2005

B11-C10D **. Phage display libraries**
2005

B11-C11 **General computing methods & apparatus**
Including media and methods for storing, searching and retrieving data and drug databases. Also for computerised pharmacological models.
2005

B11-C11A **. Patient compliance methods & systems**
Methods concerning patient compliance, e.g. medication reminders.
2005

B11-C11B **. Computerised teaching models**
Includes computer simulations used to show drug effects, such as in university courses.
2014

B11-C11C **. Computational protein/nucleic acid analysis**
2019

B11-C11C1 **.. Computational genomics**
2019
Previous code(s): B11-C08F1

B11-C11C2 **.. Computational proteomics**
2019
Previous code(s): B11-C08F3

B11-C12 **Nanotechnology (general)**
Includes nanoswitches made of DNA, nanorobots and DNA origami.
2005

B11-C13 **Particle engineering**
Any process concerned with the design of the physical form of the particles in the dosage (as opposed to the chemical constitution of them). This optimises drug delivery properties of the dosage form.
2005

B11-C14 **Security systems (e.g. biometric data, retinal scanning, authentication of drugs, DNA labelling for security purposes, etc.)**
2008

B11-C15 **Biological tools/models/teaching aids**
Physical entities only. For Computerised teaching models see B11-C11B.
2011

B11-C15A **. Computerised teaching models**
Includes computer simulations used to show drug effects.
2021

B11-C16 **Apparatus specifically for pediatrics or geriatrics**
Includes apparatus for neonates and adolescents.
2017

B11-C17 **Bioprinting**
Includes pre- and post-bioprinting procedures. Additionally coded with B11-C04G for tissue engineering via bioprinting or B11-C04F for printable organs.
2017

B12 DIAGNOSTICS AND FORMULATION TYPES (Therapeutic, Pesticidal, Herbicidal) (pre-1994)

B12-A **ANTIMICROBIAL TYPE**

B12-A01 **Antibacterial**
Antibiotics are only B02. Immunostimulant with B12-A06 (pre-1994).
1963-1993
Now coded as: B14-A1+

B12-A02 **Antifungal, antialgal, antilichen general**
1963-1993
Now coded as: B14-A04+,B14-B08

B12-A02A **. Antialgal**
1986-1993

B12-A02B **. Antilichen**
1986-1993
Now coded as: B14-B08

B12-A02C **. Antifungal**
1986-1993
Now coded as: B14-A04+

B12-A03 **Antileprotic**
1963-1993
Now coded as: B14-A01B1

B12-A04 **Antitubercular**
1963-1993
Now coded as: B14-A01B1A

B12-A05 **Antivenereal**
1963-1993
Now coded as: B14-N07C, B14-A01A, B14-A01A5

B12-A06 **Antiviral**
Vaccines are only B02-V. Immunostimulant with B12-A01 (pre-1994).
1963-1993
Now coded as: B14-A02+

B12-A07 **Skin and wound treatment**
1963-1993
Now coded as: B14-N17+

B12-A08 **Antifouling**
(prior to 198601 search B12-A02, B12-N01, B12-N04 and B12-N05)
1986-1993

B12-B **ANTIPARASITIC TYPE**

B12-B01 **Amoebicide**
1963-1993
Now coded as: B14-A03A

B12-B02 **Anthelmintic**
1963-1993
Now coded as: B14-B03

B12-B03 **Antimalarial**
1963-1993
Now coded as: B14-A03B

B12-B04 **Antiparasitic (general) acaricide**
1963-1993
Now coded as: B14-B02

B12-B05 **Coccidiostat**
1963-1993
Now coded as: B14-A03C

B12-B06 **Schistosomicide**
1963-1993
Now coded as: B14-B03A

B12-B07 **Trypanocide**
1963-1993
Now coded as: B14-A03E

B12-C **CNS-ACTIVE TYPE (I)**

B12-C01 **Anesthetic (general)**
1963-1993
Now coded as: B14-C07

B12-C02 **Anesthetic (local)**
1963-1993
Now coded as: B14-C08

B12-C03 **Analeptic**
1963-1993
Now coded as: B14-J01A2

B12-C04 **Antiparkinsonian drug**
1963-1993
Now coded as: B14-J01A3

B12-C05 **Central depressant**
1963-1993
Now coded as: B14-J01B

B12-C06 **Central stimulant**
1963-1993
Now coded as: B14-J01A, B14-J01A1

B12-C07 **Hypnotic**
1963-1993
Now coded as: B14-J01B1

B12-C08 **Sedative**
1963-1993
Now coded as: B14-J01B2

B12-C09 **Synergist**
1963-1993
Now coded as: B14-S09

B12-C10 **Tranquilliser**
1963-1993
Now coded as: B14-J01B4, B14-J01A4, B14-F02D1, B14-J01, B14-J01B3, B14-N16, B14-S07

B12-D **CNS-ACTIVE TYPE (II)**

B12-D01 **Analgesic**
1963-1993
Now coded as: B14-C01

B12-D02 **Antiallergic general**
1963-1993
Now coded as: B14-G02A

B12-D02A **. Autoimmune disease treatment**
See also B12-D03, B12-D07, B12-D09.
1986-1993
Now coded as: B14-G02D

B12-D02B **. Immune suppressant**
Immunomodulatory is also coded as B12-A01 and B12-A06
1986-1993
Now coded as B14-G02, B14-G03, B14-G02C

B12-D02C **. Complement inhibitor**
1986-1993
Now coded as B14-G02D

B12-D02D **. Anti slow-releasing-substance of anaphylaxis (SRS-A)**
1986-1993
Now coded as: B14-G02B

B12-D03 **Antiarthritic**
1963-1993
Now coded as: B14-C09+

B12-D04 **Anticonvulsant**
1963-1993
Now coded as: B14-J07

B12-D05 **Antiemetic**
1963-1993
Now coded as: B14-E05

B12-D06 **Antihistamine general**
For gastric secretion inhibitor see also B12-J02.
1963-1993
Now coded as: B14-L09

B12-D06A **. H2 secretion inhibitor**
1986-1993
Now coded as: B14-L11

B12-D06B **. H1 inhibitor**
1986-1993
Now coded as: B14-L10

B12-D07 **Antiinflammatory**
1963-1993
Now coded as: B14-C02, B14-C03

B12-D08 **Antipyretic**
1963-1993
Now coded as: B14-C04, B14-C05

B12-D09 **Antirheumatic**
1963-1993
Now coded as: B14-C06

B12-D10 **Convulsant**
1963-1993
Now coded as: B14-J06

B12-E **AUTONOMIC N.S. ACTIVE TYPE**

B12-E01 **Autonomic N.S. active general**
1963-1993
Now coded as: B14-F02, B14-J02

B12-E02 **Muscle relaxant, inotropic**
See also B12-F01.
1963-1993
Now coded as: B14-J05, B14-J05A, B14-J05C, B14-J05D

B12-E03 **Mydriatic/myopic**
1963-1993
Now coded as: B14-J05B

B12-E04 **Parasympathetic blocker**
1963-1993
Now coded as: B14-J02B+, B14-J05D

B12-E05 **Parasympathetic stimulant, acetyl choline potentiator**
1963-1993
Now coded as: B14-J02A+

B12-E06 **Sympathetic blocker general**
1963-1993
Now coded as: B14-J02D, B14-J02D3

B12-E06A **. Alpha-adrenergic blocker**
1986-1993
Now coded as: B14-J02D1

B12-E06B **. Beta-adrenergic blocker**
1986-1993
Now coded as: B14-J02D2

B12-E07 **Sympathetic stimulant, adrenergic stimulant, adrenaline potentiator**
1963-1993
Now coded as: B14-J02C+

B12-E08 **Ulcers (peptic and duodenal)**
1963-1993
Now coded as: B14-E08

B12-E09 **Uterus active**
1963-1993
Now coded as: B14-N14

B12-F **CARDIOACTIVE TYPE**
Previous code(s): B14-F

B12-F01 **Cardioactive general**
1963-1993
Now coded as: B14-F01

B12-F01A **. Arrhythmia treatment**
1986-1993
Now coded as: B14-F01A

B12-F01B **. Cardiac stimulant**
Including treatment of myocardial infarct, myocardial contraction intensifying, cardiac arrest treatment, cardiotonic, cardiac insufficiency treatment.
1986-1993
Now coded as: B14-F01B

B12-F01C **. Cardiovascular, inotropic**
Before 198602 inotropic was coded B12-E02.
1986-1993
Now coded as: B14-F01C

B12-F02 **Coronary dilator**
1963-1993
Now coded as: B14-F01D,B14-F01E

B12-F03 **Ganglion blocker**
1963-1993
Now coded as: B14-F01F

B12-F04 **Hypertensive**
1963-1993
Now coded as: B14-F02A

B12-F05 **Hypotensive general**
1963-1993
Now coded as: B14-F02B

B12-F05A **. Angiotensin converting enzyme inhibitor, renin inhibitor**
1986-1993
Now coded as: B14-F02B1

B12-F05B **. Calcium entry blockers**
B12-G01 may also be searched.
1986-1993
Now coded as: B14-F02B2

B12-F06 **Vasoconstrictor**
1963-1993
Now coded as: B14-F02C

B12-F07 **Vasodilator**
1963-1993
Now coded as: B14-F02D+

B12-G **METABOLISM ACTIVE TYPE**

B12-G01 **Antimetabolite general**
1963-1993
Now coded as: B14-J04, B14-L06, B14-L07, B14-L08

B12-G01A **. Antihormone, antiandrogenic, antiestrogenic, antiprogestational, adrenal cortex inhibitor**
1986-1993
Now coded as: B14-D02+

B12-G01B **. Enzyme inhibitor**
1986-1993
Now coded as: B14-D03,B14-D04

B12-G01B1 **.. Antioxidoreductase**
1986-1993
Now coded as: B14-D05+

B12-G01B2 **.. Antitransferase**
1986-1993
Now coded as: B14-D06+

B12-G01B3 **.. Antihydrolase**
1986-1993
Now coded as: B14-D07+

B12-G01B4 .. **Antilyase**
1986-1993
Now coded as: B14-D08

B12-G01B5 .. **Antiisomerase**
1986-1993
Now coded as: B14-D09

B12-G01B6 .. **Antiligase (antisynthetase)**
1986-1993
Now coded as: B14-D10

B12-G02 **Choleretic and liver**
1963-1993
Now coded as: B14-N12

B12-G03 **Diuretic and kidney**
For urinary tract infections see B12-A01.
1963-1993
Now coded as: B14-F02E, B14-N10

B12-G04 **Hormone adrenocortical**
Including Addison's disease treatment (general).
1963-1993
Now coded as: B14-D01, B14-D01D, B14-D01E, B14-J03

B12-G04A . **Anti-aging, anti-senility, anti-Alzheimer's disease**
Including non-hormonal treatment.
1986-1993
Now coded as: B14-J01A4

B12-G04B . **Androgenic**
1986-1993
Now coded as: B14-D01A

B12-G04C . **Estrogenic**
1986-1993
Now coded as: B14-D01B

B12-G04D . **Progestational**
1986-1993
Now coded as: B14-D01C

B12-G05 **Leukemia treatment**
1963-1993
Now coded as: B14-H01A

B12-G06 **Thyroid agent**
1963-1993
Now coded as: B14-N11

B12-G07 **Tumour inhibitor**
1963-1993
Now coded as: B14-H01,B14-H01B

B12-H BLOOD ACTIVE TYPE

B12-H01 **Antianemic**
1963-1993
Now coded as: B14-F03

B12-H02 **Anticoagulant**
1963-1993
Now coded as: B14-F04

B12-H03 **Antilipemic**
1963-1993
Now coded as: B14-F06, B14-F07

B12-H04 **Coagulant**
1963-1993
Now coded as: B14-F08

B12-H05 **Hypoglycemic**
1963-1993
Now coded as: B14-F09, B14-F10

B12-H06 **Plasma and blood substitutes**
1963-1993
Now coded as: B14-F11

B12-J GASTROINTESTINAL ACTIVE TYPE

B12-J01 **Anabolic agent, nutritional, achlorhydria treatment (humans)**
1963-1993
Now coded as: B14-E10+, B14-E11

B12-J02 **Anorectic, antisecretory**
1963-1993
Now coded as: B14-E07, B14-E12

B12-J03 **Antacid**
1963-1993
Now coded as: B14-E01, B14-E03

B12-J04 **Antidiarrheal, antihemorrhoidal**
1963-1993
Now coded as: B14-E02, B14-E04

B12-J05 **Antidote general**
1963-1993
Now coded as: B14-M01, B14-M01C

B12-J05A . **Alcoholism treatment**
1986-1993
Now coded as: B14-M01A

B12-J05B . **Antismoking**
1986-1993
Now coded as: B14-M01B

B12-J05C . **Anti-heavy metal poisoning**
1986-1993
Now coded as: B14-M01D

B12-J05D . **Pesticide or herbicide antidote**
1986-1993
Now coded as: B14-M01E

B12-J05E . **Protecting plants from poisons**
1986-1993

B12-J06 **Emetic**
1963-1993
Now coded as: B14-E06

B12-J07 **Laxative**
1963-1993
Now coded as: B14-E09

B12-J08 **Bone disorder treatment, osteoporosis**
Excluding arthritis treatment (B12-D03) and bone marrow cell disorders (B12-G05). For osteoporosis prior to 198601 search B12-J01.
1986-1993
Now coded as: B14-N01

B12-K **DIAGNOSTICS RESPIRATORY ACTIVE TYPE (PRE-1994)**

B12-K01 **Antitussive**
1963-1993
Now coded as: B14-K01B

B12-K02 **Bronchodilator**
1963-1993
Now coded as: B14-K01D

B12-K03 **Contraceptive**
1963-1993
Now coded as: B14-P01+

B12-K04 **Diagnosis and testing general**
This section is used for coding substances which are stated to be detecting agents: e.g. a new antibody used for detecting cancer is coded under B04-G and B12-K04G2A only. When the procedure for detecting is descibed as novel, then the corresponding B11-C07 and B11-C08 codes are also applied.
As of 201601, subsection B12-K04A has been retired and the codes reorganised and expanded in new subsection B12-K04G.

B12-K04A **. Diagnosis of diseases or conditions in animals general**
Including detection of glucose in blood and ethanol in breath.
1986-2015
Now coded as B12-K04G

B12-K04A1 **.. Diagnosis of tumours, cancer**
1986-2015
Now coded as B12-K04G2A

B12-K04A2 **.. Diagnosis of heart and circulatory disorders**
1986-2015
Now coded as B12-K04G2B

B12-K04A3 **.. Diagnosis of genetic disorders**
1986-2015
Now coded as B12-K04G2C

B12-K04A4 **.. Diagnosis of microbial infections**
1986-2015
Now coded as B12-K04G1A

B12-K04A4A **... Detection of viral diseases**
2005-2015
Now coded as B12-K04G1B

B12-K04A4B **... Detection of bacterial diseases**
2005-2015
Now coded as B12-K04G1C

B12-K04A4C **... Detection of fungal diseases**
2015-2015
Now coded as B12-K04G1D

B12-K04A5 **.. Diagnosis of CNS disorders**
1986-2015
Now coded as B12-K04G2D

B12-K04A6 **.. Diagnosis of pregnancy, testing or measuring sex hormone levels and oestrus cycle**
1986-2015
Now coded as B12-K04G2E

B12-K04A7 **.. Detection of parasites**
Including protozoa and helminths.
2006-2015
Now coded B12-K04G1E

B12-K04A8 **.. Diagnosis of immunological disorders**
2007-2015
Now coded as B12-K04G2F

B12-K04A9 **.. Diagnosis of respiratory disorders**
Includes detection of diseases such as anoxia, cystic fibrosis and bronchitis.
2012-2015
Now coded as B12-K04G2G

B12-K04A10 **.. Diagnosis or detection of endocrine and hormonal diseases**
Diagnosis or detection of endocrine and hormonal diseases including thyroid diseases.
2015-2015
Now coded as B12-K04G2H

B12-K04B **. In vivo radiopharmaceutical diagnostics**
Excludes in vivo X-ray and MRI diagnostics, which are coded in B12-K07, and other types of in vivo imaging which are coded in B12-K04C.
1986

B12-K04C **. In vivo imaging (other than by X-ray or radiopharmaceuticals)**
Including imaging of complete organs, cells e.g. cancer cells, or other biological molecules within a whole body rather than a sample.
1986

B12-K04C1 **.. Ultrasonics**
1994
Previous code(s): B12-K04C

B12-K04C2 **.. NMR**
1994
Previous code(s): B12-K04C

B12-K04C3 **.. Tomography**
Includes PET (positron emission tomography).
2007

B12-K04D **. Testing for plant disorders or diseases**
1986-2018

B12-K04E **. Testing for substances other than for diseases**
Not in body fluids.
1986

B12-K04E1 **.. Drug discovery process**
2005

B12-K04E2 **.. Environmental testing**
Includes testing for contaminants in rivers.
2005

B12-K04E3 **.. Other drug testing**
Includes quality control.
2007

B12-K04F **. Tests involving nucleic acid, hybridisation probes etc.**
1994
Previous code(s): B12-K04,B12-K04A

B12-K04G **. Diagnosis of diseases or conditions in animals general**
Including detection of glucose in blood and ethanol in breath.
2016
Previous code(s): B12-K04A

B12-K04G1 **.. Diagnosis of infections and exogenous disorders**
2016

B12-K04G1A **... Diagnosis of microbial diseases general and other**
2016
Previous code(s): B12-K04A4

B12-K04G1B **... Detection of viral diseases**
2016
Previous code(s): B12-K04A4A

B12-K04G1C **... Detection of bacterial diseases**
2016
Previous code(s): B12-K04A4B

B12-K04G1D **... Detection of fungal diseases**
2016
Previous code(s): B12-K04A4C

B12-K04G1E **... Detection of parasites**
Including protozoa and helminths.
2016
Previous code(s): B12-K04A7

B12-K04G2 **.. Diagnosis of endogenous disorders general and other**
2016

B12-K04G2A **... Diagnosis of tumors, cancer**
2016
Previous code(s): B12-K04A1

B12-K04G2B **... Diagnosis of heart and circulatory disorders**
2016
Previous code(s): B12-K04A2

B12-K04G2C **... Diagnosis of genetic disorders**
2016
Previous code(s): B12-K04A3

B12-K04G2D **... Diagnosis of CNS disorders**
2016
Previous code(s): B12-K04A5

B12-K04G2E **... Diagnosis of pregnancy, testing or measuring sex hormone levels and estrus cycle**
2016
Previously coded as: B12-K04A6

B12-K04G2F **... Diagnosis of immunological disorders**
2016
Previous code(s): B12-K04A8

B12-K04G2G **... Diagnosis of respiratory disorders**
Includes detection of diseases such as anoxia, cystic fibrosis and bronchitis.
2016
Previous code(s): B12-K04A9

B12-K04G2H **... Diagnosis of endocrine and hormonal diseases**
Including thyroid diseases.
2016
Previous code(s): B12-K04A10

B12-K04G2I **... Diagnosis of gastrointestinal disorders**
2016

B12-K04G2J **... Diagnosis of renal and urological disorders**
2016

B12-K04G2K **... Diagnosis of metabolic disorders**
2021

B12-K05 **Expectorant**
1963-1993
Now coded as: B14-K01E

B12-K06 **Respiratory active**
1963-1993
Now coded as: B14-K01,B14-K01C

B12-K07 **Contrast agents and medium**
Prior to 2010, this code covered X-ray contrast media only. Includes X-ray and MRI agents and media. Does not include radiopharmaceuticals (coded in B12-K04B) and other in-vivo imaging (coded in B12-K04C).
1963

B12-L COSMETIC PREPARATION TYPE

B12-L01 **Antiperspirant**
1963-1993
Now coded as: B14-R03

B12-L02 **Cosmetic**
1963-1993
Now coded as: B14-R01

B12-L03 **Dental agent**
1963-1993
Now coded as: B14-N06

B12-L04 **Ear, nose, eye, mouth and throat preparation**
1963-1993
Now coded as: B14-N02, B14-N03, B14-N04, B14-N05

B12-L05 **Hair preparation**
1963-1993
Now coded as: B14-R02

B12-L06 **Insect repellent**
1963-1993
Now coded as: B14-B05

B12-L07 **Perfume**
1963-1993
Now coded as: B14-R04

B12-L08 **Sunscreen agent**
1963-1993
Now coded as: B14-R05

B12-L09 **Veterinary**
1963-1993

B12-L10 **Agricultural composition general**
1966-1993

B12-M **FORMULATIONS TYPE**
Codes in this section are applied only when the formulation is the main feature of the invention, or ingredients are not specified.

B12-M01 **Aerosol, inhalent, smoke general**

B12-M01A **. Aerosol**
1986

B12-M01B **. Inhalent**
1986

B12-M01B1 **.. Dry powder inhaler**
A dry powder inhaler (DPI) is similar to a metered dose inhaler, but is breath-activated, so the patient does not have to co-ordinate activation of the inhaler with inhalation of medicament.
2005

B12-M01B2 **.. Multidose inhaler**
A different type of inhaler that is also breath-activated. Used to deliver many smaller doses to make up the full required dosage.
2005

B12-M01B3 **.. Nebuliser**
A device which is used to administer a solution of drug in the form of a fine mist for patient to inhale. Air is forced through the drug solution in the drug chamber, changing the liquid into a fine mist which is breathed in through a mask or mouthpiece.
2005

B12-M01B4 **.. Metered dose inhaler**
2008

B12-M01C **. Smoke**
Also includes incense.
1986

B12-M01D **. Intranasal**
2002-2006
Now coded as: B12-M12Q

B12-M01E **. Other gaseous forms**
2005

B12-M02 **Cream, gel, ointment, plaster**

B12-M02A **. Toothpaste, toothpowder**
From 198601 B12-L03 is not additionally applied.
1986

B12-M02B **. Ointment, cream, lotion**
Includes liniment, paste, balm and other general oil-based formulations.
1986

B12-M02C **. Cataplasm, poultice**
Applying heat.
1986

B12-M02D **. Adhesive sheet, sticking plaster, bandage, gauze**
From 2006, the scope of this code has been extended to cover adhesive sheets in addition to sticking plasters and bandages. Also includes gauze. Excluding B12-M02C.
1986

B12-M02E **. Dusting powder**
Topical use only.
1986

B12-M02F **. Transdermal**
Administration of a drug through dermal or mucosal membrane. Includes microneedles.
1986

B12-M02G **. Gels/hydrogels**
2006

B12-M03 **Emulsion**

B12-M04 **Packaging material, apparatus**
This code is used in conjunction with only the 11-C, 11-C01, 11-C07, 11-C08 and 11-C09 sub-sections of B11.

B12-M05 **Pharmaceutical composition general**

B12-M06 **Preservative**

B12-M07 **Solution**

B12-M08 **Suppository**
Also includes pessaries.

B12-M09 **Surfactant**

B12-M10 **Controlled release general**

B12-M10A . **Sustained release general**
Active ingredient is gradually released over a period of time.
1986

B12-M10A1 .. **Osmotic pump**
Similar to a reservoir device but with an osmotic agent added (typically the active agent in salt form) which causes pressure generation that forces out the active agent.
2005

B12-M10A2 .. **Reservoir devices**
Active drug core encapsulated within a polymer film or coat through which it diffuses.
2005

B12-M10A3 .. **Multi-layer tablet**
Variation on the matrix device in which the matrix is coated so as to modify the hydration/swelling of the core and so reduce the surface area available for drug delivery.
2005

B12-M10A4 .. **Other matrix devices**
Drug is present as a dispersion within a polymer matrix, including clathrates. Also known as monolithic devices. Not used for the multi-layer tablet type (in which matrix is fully or partially coated) or for externally stimulated devices.
2005

B12-M10A5 .. **Pendant devices**
Active is bound to polymer, from which it is released by hydrolytic enzymes in the body.
2005

B12-M10A6 .. **Dual release devices**
Typically soft gelatin capsules designed to provide an initial burst of drug followed by a steady release of the remainder. Consists of an inner aqueous matrix and outer lipophilic matrix.
2005

B12-M10A7 .. **Nanotechnology devices**
Use of nanotechnology to deliver drugs to specific sites and control their release at that point. Includes quantum dots.
2005

B12-M10B . **Delayed release**
This term is usually associated with enterically coated tablets which prevent the contents from being released until a drug reaches the intestines.
1986

B12-M10C . **Rapid release**
2002

B12-M10D . **Pulsed release**
Active drug core coated with specific polymers and agents, where active is released in a “drug pulse” after a time lag.
2005

B12-M10E . **Site-specific release**
Drug bound to /or encased in a bio-polymer or other active substance in order to facilitate its transfer through the cell wall. This ensures the drug is delivered to the specific cells it needs to reach.
2005

B12-M10E1 .. **Using lipid-based systems**
A site-specific release form in which the drug is encased in a lipid-based system. These may include liposomes, solid lipid nanoparticles (SLNs), nanostructured lipid carriers (NLC) and hybrid nanoparticles.
2005

B12-M10E2 .. **Using antibodies**
A site-specific release form in which the drug is bound to an antibody.
2005

B12-M10E3 .. **Using nucleic acids**
A site-specific release form in which the drug is bound to nucleic acid.
2017

B12-M10E4 .. **Using protein/peptide**
A site-specific release form in which the drug is bound to a protein/peptide.
2019

B12-M10F . **Externally stimulated devices (e.g. electrically or ultrasonically)**
Any controlled release device in which the release of the drug is by an external stimulus. May be used in conjunction with other B12-M10 codes.
2005

B12-M11 **Tablets, capsules, pills etc. general**

B12-M11A . **Anticaking**
1986

B12-M11B . **Tablet (pressed)**
1986

B12-M11C . **Capsule**
Excluding microcapsule.
1986

B12-M11D . **Pellet, prill, granule, particle**
Excluding B12-M11B.
1986

B12-M11E . **Microcapsule**
Excluding B12-M11F.
1986

B12-M11F . **Liposomes/niosomes**
Includes non-ionic surfactant-based liposomes when site specific release is not mentioned. Includes micelles.
1986

B12-M11G . **Powder**
1986

B12-M11H . **Polymorphic form**
2010

B12-M11H1 .. **Special amorphous form**
2006
Previous code(s): B12-M11H

B12-M11H2 .. **Special crystal form**
2010
Previous code(s): B12-M11H

B12-M11J . **Effervescent formulation**
Includes effervescent tablets and effervescent granules.
1994

B12-M11K . **Tablet with two or more coating layers**
1994
Previous code(s): B12-M11B

B12-M11L . **Water-soluble formulation**
Includes water soluble tablets and water soluble granules.
2002

B12-M11M . **Chewable tablet**
2005

B12-M11N . **Microparticle**
2006

B12-M11P . **Lyophilized form**
Also includes freeze dried forms.
2006

B12-M11Q . **Nanoformulations**
2008

B12-M11Q1 .. **Nanoparticle**
2020

B12-M11Q2 .. **Nanoemulsion**
2020

B12-M11Q3 .. **Nanosuspension**
2020

B12-M11R . **Coated form general and other**
Tablets with two or more coating layers are coded under B12-M11K.
2009

B12-M11R1 .. **Coated capsules**
2009

B12-M11R2 .. **Coated microparticles**
2009

B12-M11R3 .. **Coated tablets**
2012

B12-M11S . **Foam formulation**
2011

B12-M11T . **Lozenge**
2014

B12-M11U . **Dual dosage forms**
E.g. tablet in capsule / pellet in capsule. To be searched alongside the B12 codes for each individual dosage component.
2016

B12-M11V . **Colloidal form**
May be searched with other code(s) from B12-M.
2016

B12-M11Z . **Pro-formulation**
Additional code to indicate the pro-form of a formulation e.g. pro-liposomes. Applied in conjunction with other B12-M11 codes.
2015

B12-M12 **MODE OF ADMINISTRATION**
2005

B12-M12A . **Buccal, sublingual**
2005

B12-M12B . **External, topical**
2005

B12-M12C . **Injection**
2005

B12-M12D . **Infusion**
2005

B12-M12E . **Intraarterial**
2005

B12-M12F . **Intravenous**
2005

B12-M12G . **Intraaural**
2005

B12-M12H . **Intraocular**
Includes intravitreal.
2005

B12-M12I . **Intratracheal**
2020

B12-M12J . **Intramuscular**
2005

B12-M12K . **Subcutaneous**
2005

B12-M12L . **Intrauterine, cervical**
2005

B12-M12M . **Intravaginal**
2005

B12-M12N . **Oral general**
2005

B12-M12O . **Intraosseous**
Administration directly into bone.
2020

B12-M12P . **Rectal general**
2005

B12-M12Q . **Intranasal**
2006

B12-M12R . **Intrathecal**
2012

B12-M12S . **Intraarticular**
2013

B12-M12T . **Intramedular**
Intramedular/intramedullary.
2013

B12-M12U . **Intraperitoneal**
2013

B12-M12V . **Epidural**
Mode of adminstration is through the spinal cord.
2015

B12-M12W . **Intravesical**
Injecting drugs directly to urinary bladder.
2017

B12-M12X . **Intratumoral**
2019

B12-M12Y . **Intracardiac**
Administration directly into the heart.
2020

B12-M12Z . **Specific treatment regime**
Includes sequential administration of drugs, tapered dosing regimes.
2011

B12-M14 **Suspensions, dispersions**
2005

B12-M15 **Film, sheet**
Includes laminates.
2005

B12-M16 **Prosthesis**
2005

B12-M17 **Surgical sponge, tampon**
2005

B12-M18 **Encapsulation**
2005

B12-M19 **Gene delivery methods**
2006

B12-M19A . **Gene delivery by viral methods**
2006

B12-M19B . **Gene delivery by non-viral methods**
2006

B12-M20 **Taste masking agent**
2007

B12-M21 **Absorbent, accelerator**
2007

B12-M22 **Formulations to prevent drugs from being abused**
2008

B12-N **PESTICIDES, FERTILISERS**

B12-N01 **Pesticides general**
1965-1993

B12-N02 **Insecticides**
1965-1993

B12-N03 **Lures, baits etc.**
1965-1993

B12-N04 **Molluscicide, slugicide**
1965-1993

B12-N05 **Rodenticide**
Including birds etc.
1965-1993

B12-N06 **Rodent repellent**
Including birds etc.
1965-1993

B12-N07 **Soil fumigants, sterilants and seed protectants**
1965-1993

B12-N08 **Soil improving (other than nutrients) synthetic growth media**
1965-1993

B12-N09 **Soil nutrients**
Inorganic, including trace elements.
1965-1993

B12-N10 **Soil nutrients (others)**
1965-1993

B12-P **PLANT GROWTH REGULANT TYPE**

B12-P01 **Plant growth regulants general**
1965-1993

B12-P02 **Defoliants, desiccants, chemical mowing**
1965-1993

B12-P03 **Fruit drop and set, thinning of fruit**
1965-1993

B12-P04 **Growth stimulants, phytohormones**
1965-1993

B12-P05 **Herbicide (total and general)**
1965-1993

B12-P06 **Herbicide (selective)**
1965-1993

B12-P07 **Moss, lichen controlling**
1965-1993

B12-P08 **Rooting cpds. (rhizogenes)**
1965-1993

B12-P09 **Sprouting inhibitors, seed germination inhibitors, growth inhibitors**
1965-1993

B12-P10 **Moisture conservation (mulches)**
1965-1993

B12-Q01 **TARGETED THERAPIES**
Includes pharmacogenomics, precision medicine, personalised medicine and theranostics.
2006

B12-Q01A **. Pharmacogenomics general**
2006

B12-R **FORMULATION SPECIFICALLY EXCLUDING ONE OR MORE COMPONENTS**
e.g. analgesic formulation specifically excluding aspirin. The component(s) excluded is/are not coded in sections B01-B10.
2009

B14 PHARMACEUTICAL ACTIVITIES

When a patent refers to a drug's mode of action and lists a number of activities associated with it, only the mode of action is coded.

When a patent refers to a class of diseases and then specifies only one preferred condition, both the general and specific disease codes should be applied.

B14-A **ANTIMICROBIALS**
1994

B14-A01 **Antibacterial general**
1994
Previous code(s): B12-A01

B14-A01A **. Gram-negative genera, general and other**
1994
Previous code(s): B12-A01

B14-A01A1 **.. Bordetella**
e.g. B. pertussis (causes whooping cough).
1994
Previous code(s): B12-A01

B14-A01A2 **.. Borrelia**
e.g. B. burgdorferi (causes Lyme disease).
1994
Previous code(s): B12-A01

B14-A01A3 **.. Escherichia**
e.g. E. coli.
1994
Previous code(s): B12-A01

B14-A01A4 **.. Mycoplasma**
e.g. M. pneumoniae, M. mycoides.
1994
Previous code(s): B12-A01

B14-A01A5 **.. Neisseria**
e.g. N. gonorrhoeae, N. meningitidis.
1994
Previous code(s): B12-A05

B14-A01A6 **.. Pseudomonas**
e.g. P. aeruginosa, P. mallei.
1994
Previous code(s): B12-A01

B14-A01A7 **.. Rickettsia**
e.g. R. prowazekii (causes typhus).
1994
Previous code(s): B12-A01

B14-A01A8 .. **Salmonella**
e.g. S. typhi (causes typhoid fever).
1994
Previous code(s): B12-A01

B14-A01A9 .. **Vibrio**
e.g. V. cholerae, V. parahemoliticus.
1994
Previous code(s): B12-A01

B14-A01B . **Gram-positive genera, general and other**
1994
Previous code(s): B12-A01

B14-A01B1 .. **Mycobacteria**
e.g. M.bovis, M. phlei.
1994
Previous code(s): B12-A01, B12-A03, B12-A04,

B14-A01B1A ... **M. tuberculosis**
2005

B14-A01B1B ... **M. leprae**
2005

B14-A01B2 .. **Streptococcus**
e.g. S. pyogenes, S. fecalis, S. pneumoniae (pneumococci), S. lactis.
1994
Previous code(s): B12-A01

B14-A01B3 .. **Streptomyces**
e.g. S. griseus, S. scabies.
1994
Previous code(s): B12-A01

B14-A01B4 .. **Staphylococcus**
e.g. S. aureus, S. epidermitidis.
1994
Previous code(s): B12-A01

B14-A01B5 .. **Bacillus**
e.g. B. anthracis, B. cereus
2006
Previous code(s): B14-A01B

B14-A01X . **Combating resistant bacteria**
This code is applied in conjunction with one or more codes from section B14-A01
2013

B14-A02 **Antiviral general**
1994
Previous code(s): B12-A06

B14-A02A . **DNA Viruses general and other**
1994
Previous code(s): B12-A06

B14-A02A1 .. **Adenovirus**
1994
Previous code(s): B12-A06

B14-A02A2 .. **Arbovirus**
This code is used for treatment of e.g. yellow fever or viral encephalitis.
1994
Previous code(s): B12-A06

B14-A02A3 .. **Herpesvirus**
e.g. cytomegalovirus, Epstein-Barr, chicken pox.
1994
Previous code(s): B12-A06

B14-A02A4 .. **Poxvirus**
Includes monkeypox.
1994
Previous code(s): B12-A06

B14-A02A5 .. **Hepatitis B virus**
1994
Previous code(s): B12-A06, B12-G02

B14-A02A6 .. **Papovavirus**
e.g. papilloma.
1994
Previous code(s): B12-A06

B14-A02A7 .. **Hepatitis C treatment**
Now coded as B14-A02B9.
2002-2014

B14-A02A8 .. **Hepatitis D treatment**
2002

B14-A02A9 .. **Parvovirus**
Includes treatment of “slapped cheek” syndrome.
2005

B14-A02B . **RNA Viruses general and other**
Includes Filoviridae e.g. Ebola virus and Marburg virus.
1994
Previous code(s): B12-A06

B14-A02B0 .. **Calcivirus**
e.g. norovirus, lagovirus, sapovirus, feline calcivirus
2014

B14-A02B1 .. **Retrovirus**
Including leuco- and oncoviruses, T-cell leukemia virus, HIV, Rous sarcoma. Non-antiviral AIDS treatment is coded B14-G01B.
1994
Previous code(s): B12-A06, B12-G05, B12-G07

B14-A02B2 .. **(Para/ortho)Myxovirus**
Including Influenza and mumps. In non-antiviral treatments other codes may be applied, e.g. antipyretic drug for treating ‘flu is coded B14-C04 only.
1994
Previous code(s): B12-A06

B14-A02B3 .. **Picornavirus**
Including entero-, rhino-, polio-, cold, hepatitis A. For hepatitis B see B14-A02A5. When treatment against cold is directed against symptoms, other codes may be applied, e.g. antiinflammatory drug for treating common cold is coded B14-C03 only.
1994
Previous code(s): B12-A06, B12-G02

B14-A02B4 .. **Rhabdovirus**
Including rabies.
1994
Previous code(s): B12-A06

B14-A02B5 .. **Coronavirus**
Including SARS, also coded as B14-K01D.
1994
Previous code(s): B12-A06

B14-A02B6 .. **Togavirus**
Including rubella.
1994
Previous code(s): B12-A06

B14-A02B7 .. **Reovirus**
e.g. rotavirus.
1994
Previous code(s): B12-A06

B14-A02B9 .. **Flavivirus**
Includes Yellow Fever virus, Japanese encephalitis virus, Dengue virus, Hepatitis C and G virus and West Nile virus. Prior to 201501, Hepatitis C virus was coded B14-A02A7.
2005

B14-A02X . **Combating resistant viruses**
This code is applied in conjunction with one or more codes from section B14-A02
2013

B14-A03 **Antiprotozoal general and other**
1994
Previous code(s): B12-B04

B14-A03A . **Amoebicide**
1994
Previous code(s): B12-B01

B14-A03B . **Antimalarial**
Plasmodium is the malarial parasite.
1994
Previous code(s): B12-B03

B14-A03C . **Coccidiostat**
Includes Eimeria and Isospora.
1994
Previous code(s): B12-B05

B14-A03D . **Trichomonicide, histomonicide**
1994
Previous code(s): B12-B04

B14-A03E . **Trypanocide**
i.e. sleeping sickness.
1994
Previous code(s): B12-B07

B14-A03F . **Other antiprotozoal**
2005

B14-A03X . **Combating resistant protozoa**
This code is applied in conjunction with one or more codes from section B14-A03.
2014

B14-A04 **Antifungal general and other**
1994

B14-A04A . **Aspergillus**
1994
Previous code(s): B12-A02C

B14-A04B . **Candida**
This organism commonly causes thrush.
1994
Previous code(s): B12-A02C

B14-A04C . **Trichophyton, Microsporum**
This code covers treatment of e.g. ringworm, tinea, athlete's foot.
1994
Previous code(s): B12-A02C

B14-A04X . **Combating resistant fungi**
This code is applied in conjunction with one or more codes from section B14-A04.
2013

B14-A05 **Antialgal**
1994
Previous code(s): B12-A02A

B14-B **PESTICIDES AND OTHER ANTIPARASITICS**
1994

B14-B01 **Pesticide general**
This code is applied only when type is unspecified or general.
1994
Previous code(s): B12-N01

B14-B02 **Antiparasitic general**
This code is applied only when type is unspecified or general.
1994
Previous code(s): B12-B04

B14-B02X . **Combating resistant parasites**
2020

B14-B03 **Vermicide, antihelmintic general and other**
1994
Previous code(s): B12-B02

B14-B03A . **Nematocide**
Including threadworm.
1994
Previous code(s): B12-B02

B14-B03B . **Schistosomicide**
1994
Previous code(s): B12-B06

B14-B03C . **Tapeworm**
1994
Previous code(s): B12-B02

B14-B03D . **Distomicide, other fluke**
2005

B14-B03X . **Combating resistant worms and helminths general**
This code is applied in conjunction with one or more codes from section B14-B03.
2018

B14-B04 **Arthropodicide general and other**
Includes crustacicide, arachnicide and millipede killing.
1994
Previous code(s): B12-N01

B14-B04A . **Acaricide**
Includes tickicides and miticides.
1994
Previous code(s): B12-B04

B14-B04B . **Insecticide general and other**
1994
Previous code(s): B12-N02

B14-B04B1 .. **Coleoptera**
Covers beetle killing.
1994
Previous code(s): B12-N02

B14-B04B2 .. **Dictyoptera**
Includes cockroach and termite killing.
1994
Previous code(s): B12-N02

B14-B04B3 .. **Diptera**
Includes house fly, mosquito and gnat killing.
1994
Previous code(s): B12-N02

B14-B04B4 .. **Ephemeroptera**
Includes mayfly killing.
1994
Previous code(s): B12-N02

B14-B04B5 .. **Hemiptera**
Includes aphid killing.
1994
Previous code(s): B12-N02

B14-B04B6 .. **Hymenoptera**
Includes bee, wasp and ant killing.
1994
Previous code(s): B12-N02

B14-B04B7 .. **Lepidoptera**
Covers butterfly and moth killing.
1994
Previous code(s): B12-N02

B14-B04B8 .. **Orthoptera**
Includes locust killing.
1994
Previous code(s): B12-N02

B14-B04B9 .. **Siphonaptera**
Includes flea killing.
1994
Previous code(s): B12-N02

B14-B04X . **Combating resistant arthropods**
This code is applied in conjunction with one or more codes from section B14-B04.
2013

B14-B05 **Arthropod repellent**
Covers insects, crustaceans, arachnids, millipedes, ticks and mites.
1994
Previous code(s): B12-L06

B14-B06 **Arthropod attractant**
Covers insects, crustaceans, arachnids, millipedes, ticks and mites. Including pheromones used as attractants.
1994
Previous code(s): B12-N03

B14-B07 **Arthropod sterilant**
Covers insects, crustaceans, arachnids, millipedes, ticks and mites.
1994
Previous code(s): B12-K03

B14-B08 **Antilichen**
1994
Previous code(s): B12-A02B

B14-B09 **Rodenticide**
1994
Previous code(s): B12-N05

B14-B10 **Avicide**
1994
Previous code(s): B12-N05

B14-B11 **Piscicide**
1994
Previous code(s): B12-N05

B14-B12 **Molluscicide**
Includes gastropodicides, slug, snail, bivalve and octopus killing.
1994
Previous code(s): B12-N04

B14-B13 **Animal repellent (other than insect)**
1994
Previous code(s): B12-N06

B14-B14 **Lures, baits (other than insect pheromones)**
1994
Previous code(s): B12-N03

B14-C **ANESTHETICS AND DRUGS RELIEVING FEVER, INFLAMMATION AND PAIN**
1994

B14-C01 **Analgesic**
This code is used when the action of the analgesic is very wide or unspecified. A more specific code is applied where possible, e.g. analgesic for treating dysmenorrhea only is coded under B14-N14 only.
1994
Previous code(s): B12-D01

B14-C02 **Antigout**
1994
Previous code(s): B12-D07, B12-G03

B14-C03 **Antiinflammatory general**
This code is used for treatment of general edema or inflammation. Specific inflammation treatments are coded elsewhere when possible e.g. Bronchitis is coded B14-K01 only, colitis as B14-E10C only etc..
1994
Previous code(s): B12-D07

B14-C04 **Antipyretic**
1994
Previous code(s): B12-D08

B14-C05 **Antihypothermia**
1994
Previous code(s): B12-D08

B14-C06 **Antirheumatic**
1994
Previous code(s): B12-D09

B14-C07 **General anesthetic**
1994
Previous code(s): B12-C01

B14-C08 **Local anesthetic**
1994
Previous code(s): B12-C02

B14-C09 **Antiarthritic general and other**
1994
Previous code(s): B12-D03

B14-C09A **. Osteoarthritis**
1994
Previous code(s): B12-D03

B14-C09B **. Rheumatoid-arthritis**
1994
Previous code(s): B12-D03

B14-D **HORMONAL, ANTIHORMONAL, ENZYME INHIBITORS**
*These codes also used for agonist/mimetic or receptor agonist/mimetic activities. **These codes also used for antagonist/inhibitor or receptor antagonist/inhibitor activities, e.g. aldosterone receptor antagonist is coded B14-D02A1. See B14-L for other (ant)agonist activities.
1994

B14-D01 **Hormonal general and other***
1994
Previous code(s): B12-G04

B14-D01A **. Androgenic***
1994
Previous code(s): B12-G04B

B14-D01B **. Estrogenic***
1994
Previous code(s): B12-G04C

B14-D01C **. Progestational***
1994
Previous code(s): B12-G04D

B14-D01D **. Other steroid***
1994
Previous code(s): B12-G04

B14-D01E **. Peptide hormone activity***
1994
Previous code(s): B12-G04

B14-D01E1 **.. Melanocortin agonist**
Adrenocorticotropic hormone agonist.
2005

B14-D01E2 **.. Melanin concentrating hormone agonist**
2005

B14-D01E3 **.. Glucagon-like peptide-1 (GLP-1) agonist**
2025

B14-D02 **Antihormonal general and other****
1994
Previous code(s): B12-G01A

B14-D02A **. Antisteroid general and other****
1994
Previous code(s): B12-G01A

B14-D02A1 **.. Antialdosterone****
1994
Previous code(s): B12-G01A

B14-D02A2 **.. Anticholesterol****
1994
Previous code(s): B12-H03

B14-D02A3 .. **Antiestrogenic**
This code also covers estrogenic antagonist/inhibitor activity and estrogen receptor antagonist/inhibitor activities.
2005

B14-D02A4 .. **Antiprogestational**
This code also covers progestational antagonist/inhibitor activity and progestational receptor antagonist/inhibitor activities.
2005

B14-D02A5 .. **Antiandrogenic**
This code also covers androgenic antagonist/inhibitor activity and androgen receptor antagonist/inhibitor activities.
2005

B14-D02A6 .. **Other antisteroid hormone**
This code also covers other steroid antagonist/inhibitor activity and other steroid receptor antagonist/inhibitor activities.
2005

B14-D02B . **Antipeptide hormone****
1994
Previous code(s): B12-G01A

B14-D02B1 .. **Melanocortin antagonist**
2005

B14-D02B2 .. **Melanin concentrating hormone antagonist**
2005

B14-D03 **Enzyme inhibitors general and other**
1994
Previous code(s): B12-G01B

B14-D04 **Coenzyme inhibitors**
1994
Previous code(s): B12-G01B

B14-D05 **Antioxidoreductases general and other**
1994
Previous code(s): B12-G01B1

B14-D05A . **Antioxidases**
1994
Previous code(s): B12-G01B1

B14-D05B . **Antiperoxidases**
1994
Previous code(s): B12-G01B1

B14-D05C . **Antioxygenases**
1994
Previous code(s): B12-G01B1

B14-D05D . **Antidehydrogenases, antireductases**
1994
Previous code(s): B12-G01B1

B14-D06 **Antitransferases general and other**
Includes HIV integrase inhibitor.
1994
Previous code(s): B12-G01B2

B14-D06A . **AntiDNA/RNA polymerase**
1994
Previous code(s): B12-G01B2

B14-D06B . **Antireverse transcriptase**
1994
Previous code(s): B12-G01B2

B14-D06C . **Antikinase**
2005

B14-D07 **Antihydrolases general and other**
1994
Previous code(s): B12-G01B3

B14-D07A . **Antiesterases**
Including lipase, nuclease, restriction enzyme, sulfatase, phosphatase inhibitors.
1994
Previous code(s): B12-G01B3

B14-D07A1 .. **Antiphosphodiesterases**
2005

B14-D07B . **Antiglycosidases**
Including amylase, cellulase, lactase inhibitors.
1994
Previous code(s): B12-G01B3

B14-D07C . **Antiproteases, antipeptide hydrolases**
Including chymotrypsin, trypsin, papain, fibrinolysin, renin, collagenase, elastase inhibitors. Renin inhibitor used as hypotensive is coded B14-F02B1 only.
1994
Previous code(s): B12-G01B3

B14-D07C1 .. **Antimetalloproteases**
2005

B14-D08 **Antilyases**
Including adenyl cyclase, (de)carboxylase, aldolase, dehydratase inhibitors.
1994
Previous code(s): B12-G01B4

B14-D09 **Antiisomerases**
Including racemase, tautomerase, epimerase, mutase inhibitors.
1994
Previous code(s): B12-G01B5

B14-D10 **Antiligases**
Including synthetase, some carboxylase inhibitors.
1994
Previous code(s): B12-G01B6

B14-E **DRUGS ACTING ON THE GASTROINTESTINAL SYSTEM**
1994

B14-E01 **Antacid**
1994
Previous code(s): B12-J03

B14-E02 **Antidiarrheal**
1994
Previous code(s): B12-J04

B14-E03 **Antiflatulent**
1994
Previous code(s): B12-J03

B14-E04 **Antihemorrhoidal**
1994
Previous code(s): B12-J04

B14-E05 **Antiemetic**
1994
Previous code(s): B12-D05

B14-E06 **Emetic**
1994
Previous code(s): B12-J06

B14-E07 **Gastric secretion inhibitor**
1994
Previous code(s): B12-J02

B14-E08 **Ulcer treatment (peptic, gastric, duodenal)**
Skin ulcers are coded B14-N17H.
1994
Previous code(s): B12-E08

B14-E09 **Laxative**
1994
Previous code(s): B12-J07

B14-E10 **Gastrointestinal dysfunction general and other**
1994
Previous code(s): B12-J01

B14-E10A **. Esophageal**
1994
Previous code(s): B12-J01

B14-E10B **. Gastric**
Includes gastritis.
1994
Previous code(s): B12-J01

B14-E10C **. Bowel**
Including irritable and inflammatory bowel (e.g. IBS).
1994
Previous code(s): B12-J01

B14-E10C1 **.. Inflammatory bowel conditions**
2005

B14-E10D **. Dysentery**
1994
Previous code(s): B12-B01, B12-A01, B12-A06, B12-J04, B12-J05

B14-E10E **. Gastrointestinal flora**
2008

B14-E11 **Anabolic, anorexia treatment general**
1994
Previous code(s): B12-J01

B14-E11A **. Anorexia**
2005

B14-E11B **. Cachexia**
Any general reduction in the vitality and/or strength of the body and/or mind as a result of a debilitating chronic illness.
2005

B14-E11C **. Malnutrition**
2005

B14-E11D **. Bulimia**
2005

B14-E12 **Anorectic, obesity treatment (appetite depressant)**
1994
Previous code(s): B12-J02

B14-F **DRUGS ACTING ON THE BLOOD AND CARDIOVASCULAR SYSTEM**
*These codes are also used for agonist/mimetic or receptor agonist/mimetic activities. **These codes are also used for antagonist/inhibitor or receptor antagonist/inhibitor activities. See section B14-L for other agonist/antagonist activities.
1994

B14-F01 **Cardioactive general and other**
1994
Previous code(s): B12-F01

B14-F01A **. Antiarrhythmic**
1994
Previous code(s): B12-F01A

B14-F01B **. Cardiac stimulant**
Including treatment of myocardial infarct, myocardial contraction intensifying, cardiotonic, cardiac arrest treatment, cardiac insufficiency treatment.
1994
Previous code(s): B12-F01B

B14-F01C **. Cardiac depressant**
1994
Previous code(s): B12-F01C

B14-F01D **. Antianginal**
1994
Previous code(s): B12-F02

B14-F01E **. Coronary dilator, coronary ischemia treatment**
1994
Previous code(s): B12-F02

B14-F01F . **Ganglion blocker**
1994
Previous code(s): B12-F03

B14-F01G . **Restenosis treatment**
2002

B14-F02 **Circulatory active general and other**
1994
Previous code(s): B12-E01

B14-F02A . **Hypertensive (calcium agonists)***
1994
Previous code(s): B12-F04

B14-F02B . **Hypotensive general and other**
1994
Previous code(s): B12-F05

B14-F02B1 .. **Angiotensin converting enzyme inhibitor, angiotensin antagonists****
This code covers renin inhibitors when used as hypotensives.
1994
Previous code(s): B12-F05A

B14-F02B2 .. **Calcium antagonists/entry blockers****
1994
Previous code(s): B12-F05B,B12-G01

B14-F02C . **Vasoconstrictor**
1994
Previous code(s): B12-F06

B14-F02D . **Vasodilator, general ischemia treatment**
1994
Previous code(s): B12-F07

B14-F02D1 .. **Cerebral ischemia treatment**
1994
Previous code(s): B12-F07,B12-C10

B14-F02D2 .. **Pulmonary ischemia treatment**
1994
Previous code(s): B12-K06

B14-F02E . **Lymphatic disease treatment**
1994
Previous code(s): B12-G03

B14-F02F . **Peripheral vascular disorder/angiogenic general**
2002

B14-F02F1 .. **Angiogenic**
2002

B14-F02F2 .. **Anti-angiogenic**
2002

B14-F02F3 .. **Peripheral vascular disorder**
2002

B14-F03 **Antianemic**
This code covers treatment of blood cell ratio imbalance.
1994
Previous code(s): B12-H01

B14-F04 **Anticoagulant, antiaggregants, thrombolytic**
1994
Previous code(s): B12-H02

B14-F05 **Reperfusion treatment**
1994

B14-F06 **Antilipemic**
1994
Previous code(s): B12-H03

B14-F06A . **Dyslipidemia**
2005

B14-F06B . **Hypertriglyceremia**
2011

B14-F07 **Antiarteriosclerotic**
Includes atherosclerosis.
1994
Previous code(s): B12-H03

B14-F08 **Coagulant**
1994
Previous code(s): B12-H04

B14-F09 **Hypoglycemic**
Treatment of diabetic symptoms is coded B14-S04.
1994
Previous code(s): B12-H05

B14-F10 **Hyperglycemic**
1994
Previous code(s): B12-H05

B14-F11 **Plasma and blood substitutes**
1994
Previous code(s): B12-H06

B14-G **DRUGS ACTING ON THE IMMUNE SYSTEM**
1994

B14-G01 **Immunostimulant general and other**
1994
Previous code(s): B12-A01,B12-A06

B14-G01A . **Interferon inducing**
This code is also used for agonist/mimetic or receptor agonist/mimetic activity.
1994
Previous code(s): B12-A06

B14-G01B . **AIDS treatment**
A drug which combats HIV is coded B14-A02B1.
1994
Previous code(s): B12-A06

B14-G02 **Immunosuppressant general and other**
1994
Previous code(s): B12-D02B

B14-G02A **. Antiallergic**
1994
Previous code(s): B12-D02

B14-G02B **. Antianaphylactic**
1994
Previous code(s): B12-D02D

B14-G02C **. Graft/transplant rejection treatment**
1994
Previous code(s): B12-D02B

B14-G02D **. Autoimmune disease treatment**
1994
Previous code(s): B12-D02A

B14-G03 **Immunomodulatory**
1994
Previous code(s): B12-A01,B12-A06,B12-D02B

B14-H **CANCER RELATED DRUGS**
Codes from sections B14-H01D - H01Z are now structured within the hierarchy B14-H01D to B14-H01L below. All document records containing codes introduced in 2005 will be changed to reflect the updated 2006 hierarchy and codes B14-H01M to B14-H01Z will no longer be searchable.
1994

B14-H01 **Anticancer general and other**
1994
Previous code(s): B12-G07

B14-H01A **. Leukemia treatment**
1994
Previous code(s): B12-G05

B14-H01B **. Antiproliferative, inhibitor of cell division, cytostatic**
1994
Previous code(s): B12-D07, B12-E08,B12-G07

B14-H01C **. Dermatological cancers**
2005

B14-H01D **. Endocrine cancers**
2005

B14-H01D1 **.. Breast cancers**
2005

B14-H01D2 **.. Thyroid cancers**
2005

B14-H01E **. Gastrointestinal cancers**
2005

B14-H01E1 **.. Colon cancers**
2005

B14-H01E2 **.. Esophageal cancers**
2005

B14-H01E3 **.. Gall bladder cancers**
2005

B14-H01E4 **.. Intestinal cancers**
2005

B14-H01E5 **.. Hepatic cancers**
2005

B14-H01E6 **.. Pancreatic cancers**
2005

B14-H01E7 **.. Rectal cancers**
2005

B14-H01E8 **.. Stomach cancers**
2005

B14-H01F **. Genitourinary cancers**
2005

B14-H01F1 **.. Cervical/uterine cancers**
2005

B14-H01F2 **.. Kidney cancers**
2005

B14-H01F3 **.. Ovarian cancers**
2005

B14-H01F4 **.. Prostate cancers**
2005

B14-H01F5 **.. Testicular cancers**
2005

B14-H01F6 **.. Bladder cancers**
2005

B14-H01G **. Immunological cancers**
2005

B14-H01G1 **.. Hodgkin's lymphoma**
2005

B14-H01G2 **.. Non-Hodgkin's lymphoma**
2005

B14-H01H **. Musculoskeletal cancers**
2005

B14-H01H1 **.. Osteocancers**
2005

B14-H01H2 **.. Sarcoma**
2005

B14-H01J **. Neurological cancers**
2005

B14-H01J1 **.. Brain tumours**
2005

B14-H01K **. Oral and respiratory cancers**
2005

B14-H01K1 **.. Buccal cavity and pharynx cancers**
2005

B14-H01K2 **.. Larynx cancers**
2005

B14-H01K3 **.. Lung cancers**
2005

B14-H01L **. Other cancers**
2005

B14-H01L1 **.. Multiple myelomas**
2005

B14-H02 **Mutagen, carcinogen**
1994
Previous code(s): B12-G07

B14-H03 **Apoptotic**
2002

B14-H04 **Anti-apoptotic**
2002

B14-H05 **Antiproliferative (non-cancerous)**
e.g. hyperplasia.
2006

B14-H06 **Tumor sensitizers**
Search when sensitizer type is not specified.
2008

B14-H06A **. Radiosensitizers**
2016

B14-H06B **. Photosensitizers**
2016

B14-H06C **. Chemosensitizers**
2021

B14-H06D **. Sonosensitizers**
2023

B14-H07 **Hypoplasia and aplasia**
To be searched in the general case where the affected organ(s) are not specified.
2016

B14-H00X **Treatment resistant cancers**
To be applied in conjunction with other code(s) from B14-H where the cancer(s) to be treated are stated to be drug-, radiotherapy- and/or chemotherapy resistant.
2014

B14-J **DRUGS ACTING ON THE MUSCULAR AND NERVOUS SYSTEMS**
*These codes are also used for agonist/mimetic or receptor agonist/mimetic activities, e.g. dopamine receptor agonist is coded dopaminergic B14-J02C2.
**These codes are also used for antagonist /inhibitor or receptor antagonist/inhibitor activities.
1994

B14-J01 **CNS active general and other**
Covers terms such as cerebroprotective and neuroprotective.
1994
Previous code(s): B12-C10

B14-J01A **. Stimulants general and other**
1994
Previous code(s): B12-C06

B14-J01A1 **.. Antidepressant**
1994
Previous code(s): B12-C06

B14-J01A2 **.. Analeptic**
1994
Previous code(s): B12-C03

B14-J01A3 **.. Antiparkinsonian**
1994
Previous code(s): B12-C04

B14-J01A4 **.. Alzheimer's, Huntington's, senility, senile dementia, cognitive enhancer, antiamnesia, nootropics**
1994
Previous code(s): B12-C10,B12-G04A

B14-J01B **. Depressants general and other**
1994
Previous code(s): B12-C05

B14-J01B1 **.. Hypnotic**
1994
Previous code(s): B12-C07

B14-J01B2 **.. Sedative**
1994
Previous code(s): B12-C08

B14-J01B3 **.. Antipsychotic, neuroleptic, antischizophrenic**
1994
Previous code(s): B12-C10,B12-E02

B14-J01B4 **.. Tranquiliser, anxiolytic**
1994
Previous code(s): B12-C10

B14-J02 **Autonomic NS active general and other**
1994
Previous code(s): B12-E01

B14-J02A **. Parasympathetic stimulants, mimetics general and other***
1994
Previous code(s): B12-E05

B14-J02A1 **.. Cholinergic (acetyl choline potentiators)***
1994
Previous code(s): B12-E05

B14-J02A2 **.. Muscarinic***
1994
Previous code(s): B12-E05

B14-J02B **. Parasympathetic depressant, parasympatholytic general and other****
1994
Previous code(s): B12-E04

B14-J02B1 **.. Anticholinergic****
1994
Previous code(s): B12-E04

B14-J02B2 **.. Antimuscarinic****
1994
Previous code(s): B12-E04

B14-J02C **. Sympathetic stimulants general and other***
1994
Previous code(s): B12-E07

B14-J02C1 **.. Adrenergic, adrenaline potentiator (alpha and beta)***
1994
Previous code(s): B12-E07

B14-J02C2 **.. Dopaminergic***
1994
Previous code(s): B12-E07

B14-J02D **. Sympathetic depressants, sympatholytic general and other****
1994
Previous code(s): B12-E06

B14-J02D1 **.. Alpha-adrenergic blocker****
1994
Previous code(s): B12-E06A

B14-J02D2 **.. Beta-adrenergic blocker****
1994
Previous code(s): B12-E06B

B14-J02D3 **.. Antidopaminergic****
1994
Previous code(s): B12-E06

B14-J03 **Serotoninergic***
1994
Previous code(s): B12-G04

B14-J04 **Antiserotoninergic****
1994
Previous code(s): B12-G01

B14-J05 **Muscular active general and other (inotropic)**
1994
Previous code(s): B12-E02

B14-J05A **. Muscle relaxant (negatively inotropic)**
1994
Previous code(s): B12-E02

B14-J05B **. Mydriatic/myopic/hyperopic**
1994
Previous code(s): B12-E03

B14-J05C **. Muscle contractant (positively inotropic)**
1994
Previous code(s): B12-E02

B14-J05D **. Antispastic, antispasmodic, spasmolytic, spasm treatment**
1994
Previous code(s): B12-E02,B12-E04

B14-J05E **. Duchenne's muscular dystrophy treatment**
2002

B14-J06 **Convulsant**
1994
Previous code(s): B12-D10

B14-J07 **Anticonvulsant**
1994
Previous code(s): B12-D04

B14-K **DRUGS ACTING ON THE RESPIRATORY SYSTEM**
1994

B14-K01 **Respiratory active general and other**
Including anoxia, cystic fibrosis and bronchitis treatment.
1994
Previous code(s): B12-K06

B14-K01A **. Antiasthmatic**
1994
Previous code(s): B12-D02,B12-K02

B14-K01B **. Antitussive**
1994
Previous code(s): B12-K01

B14-K01C **. Bronchoconstrictor**
1994
Previous code(s): B12-K06

B14-K01D **. Bronchodilator**
1994
Previous code(s): B12-K02

B14-K01E **. Decongestant, expectorant, mucolytic**
From 2006, the scope of this code has been extended to cover decongestants in addition to expectorants and mucolytics.
1994
Previous code(s): B12-K05

B14-K01F **. Adult respiratory distress syndrome (ARDS)**
2002

B14-L **AGONISTS/MIMETICS AND ANTAGONISTS/INHIBITORS NOT COVERED ELSEWHERE**
The codes in this section are also used for drugs acting at the receptor, e.g. histamine receptor agonist is coded B14-L05.
1994

B14-L01 **Agonist/mimetic general and other**
1994

B14-L01A **. Enzyme agonist/mimetic**
2005

B14-L01A1 **.. Oxidoreductase agonist**
2007

B14-L01A2 .. **Transferase agonist**
2007

B14-L01A3 .. **Hydrolase agonist**
2007

B14-L01A4 .. **Lyase agonist**
2007

B14-L01A5 .. **Isomerase agonist**
2007

B14-L01A6 .. **Synthetase agonist**
2007

B14-L01B . **Cannabinoid agonist**
2006

B14-L01C . **PPAR agonist**
Peroxisome proliferator-activated receptor agonist.
2006

B14-L01D . **Nitric oxide agonist**
2007

B14-L02 **Angiotensin agonist/mimetic**
N.B. Angiotensin antagonists/inhibitors are coded B14-F02B1.
1994

B14-L03 **Interleukin agonist/mimetic**
1994

B14-L04 **Prostaglandin, leukotriene, thromboxane agonist/mimetic**
1994

B14-L05 **Histaminergic, histamine agonist/mimetic**
1994

B14-L06 **Antagonist, inhibitor, antimetabolite general and other**
1994
Previous code(s): B12-G01

B14-L06B . **Cannabinoid antagonist**
2006

B14-L06C . **PPAR antagonist**
Peroxisome proliferator-activated receptor antagonist.
2006

B14-L06D . **Nitric oxide antagonist**
2007

B14-L07 **Interleukin antagonist/inhibitor**
1994
Previous code(s): B12-G01

B14-L08 **Prostaglandin, leukotriene, thromboxane antagonist/inhibitor**
1994
Previous code(s): B12-G01

B14-L09 **Histamine antagonist/inhibitor general and other**
1994
Previous code(s): B12-D06

B14-L10 **H1 antagonist/inhibitor**
1994
Previous code(s): B12-D06B

B14-L11 **H2 antagonist/inhibitor**
1994
Previous code(s): B12-D06A

B14-L12 **Proton pump inhibitors**
2006
Previous code(s): B14-L06

B14-M **ANTIDOTES**
1994
Previous code(s): B12-J05

B14-M01 **Antidote general and other**
To be searched for treating chronic and habitual conditions: treating acute intoxication is searched under B14-M03.
1994
Previous code(s): B12-J05

B14-M01A . **Alcoholism treatment**
1994
Previous code(s): B12-J05A

B14-M01A1 .. **Alcoholism treatment using replacement therapy**
2009

B14-M01B . **Antismoking**
1994
Previous code(s): B12-J05B

B14-M01B1 .. **Antismoking treatment using replacement therapy**
e.g. nicotine replacement patches and gum
2009

B14-M01C . **Antidrug addiction**
Excluding addiction to nicotine and alcohol.
1994
Previous code(s): B12-J05

B14-M01C1 .. **Drug addiction treatment using replacement therapy**
e.g. methadone treatment
2009

B14-M01D . **Antiheavy metal poisoning**
1994
Previous code(s): B12-J05C

B14-M01E . **Pesticide/herbicide antidote**
Includes herbicide safeners prior to 2009.
1994
Previous code(s): B12-J05D

B14-M01F . **Protecting plants from poisons**
1994-2015

B14-M02 **Pharmaceutical antidote general**
2006

B14-M02A . **Chemoprotectant**
2006

B14-M02B **. Radioprotectant**
2006

B14-M03 **Recreational drug antidote general and unspecified**
To be searched for treating acute intoxication, treating chronic conditions is searched under B14-M01.
2016

B14-M03A **. Sobering agent for acute alcohol intoxication**
2016

B14-M03B **. Antidote for acute recreational drug intoxication other than alcohol**
2016

B14-N **ORGANS**
1994

B14-N01 **Bone disorder treatment, osteoporosis**
1994
Previous code(s): B12-J08

B14-N01A **. Osteoporosis**
2005

B14-N01B **. Fractures, disorders of healing and osteogenesis**
2005

B14-N02 **Ear disorder treatment**
1994
Previous code(s): B12-L04

B14-N02A **. Balance related disorder and vestibular disorder**
2008

B14-N03 **Eye disorder treatment**
1994
Previous code(s): B12-L04

B14-N03A **. Glaucoma**
2005

B14-N04 **Nose disorder treatment**
1994
Previous code(s): B12-L04

B14-N05 **Mouth/throat disorder treatment**
1994
Previous code(s): B12-L04

B14-N05A **. Mouth disorder**
E.g. cold sores and xerostomia (chronic dry mouth).
2005

B14-N05B **. Throat disorder**
Covers throat disorders but excludes disorders of the esophagus.
2005

B14-N06 **Dental general and other**
1994
Previous code(s): B12-L03

B14-N06A **. Anticaries/antiplaque**
1994
Previous code(s): B12-A01,B12-L03

B14-N06B **. Periodontal**
Includes gingivitis.
1994
Previous code(s): B12-L03,B12-L04

B14-N07 **Urogenital/anorectal disease treatment general and other**
1994
Previous code(s): B12-A05, B12-D07, B12-G03, B12-G04

B14-N07A **. Prostate**
1994
Previous code(s): B12-G03,B12-G04

B14-N07B **. Cystitis**
1994
Previous code(s): B12-D07

B14-N07C **. Venereal**
1994
Previous code(s): B12-A05

B14-N07D **. Incontinence treatment**
1994
Previous code(s): B12-G03

B14-N08 **Diuretic**
1994
Previous code(s): B12-G03

B14-N09 **Antidiuretic**
1994
Previous code(s): B12-G03

B14-N10 **Kidney**
1994
Previous code(s): B12-G03

B14-N11 **Thyroid**
1994
Previous code(s): B12-G06

B14-N12 **Liver**
1994
Previous code(s): B12-G02

B14-N13 **Pancreas**
1994
Previous code(s): B12-G02

B14-N14 **Uterus**
Premenstrual syndrome and dysmenorrhea are covered here but labour inducing drugs are coded with abortifacients under B14-P01B.
1994
Previous code(s): B12-E09

B14-N15 **Spleen**
1994
Previous code(s): B12-G02

B14-N16 **Brain and spinal cord**
Including stroke, meningitis, encephalitis and other prion type diseases.
1994
Previous code(s): B12-C10,B12-E01

B14-N16A **. Bovine spongiforme encephalopathy (BSE, "Mad cow disease")**
2002

B14-N16B **. Creutzfeld Jakob disease (CJD)**
2002

B14-N16C **. Kuru**
2005

B14-N16D **. Scrapie**
A fatal degenerative disease affecting the CNS of sheep and goats.
2005

B14-N17 **Skin treatment general and other**
Fungal skin diseases are coded under B14-A04.
1994
Previous code(s): B12-A07

B14-N17A **. Burn**
1994
Previous code(s): B12-A07

B14-N17B **. Wound other (physical trauma)**
1994
Previous code(s): B12-A07

B14-N17C **. Psoriasis, dermatitis**
1994
Previous code(s): B12-A07

B14-N17D **. Acne**
1994
Previous code(s): B12-A07

B14-N17E **. Dandruff and seborrhoea**
2005

B14-N17F **. Antiscarring**
2005

B14-N17G **. Pruritis**
2008

B14-N17H **. Dermal ulcers**
Also includes cold sores, which are additionally coded with B14-A02A3.
2019

B14-N18 **Mammary gland**
Including mastitis.
2002

B14-N19 **Nail disease treatment**
Fungal nail diseases also search under B14-A04.
2020

B14-P **DRUGS ACTING ON THE REPRODUCTIVE SYSTEM**
1994

B14-P01 **Contraceptive general and other**
1994
Previous code(s): B12-K03

B14-P01A **. Male, spermicide**
1994
Previous code(s): B12-K03

B14-P01B **. Female, abortifacient, antiovulatory**
1994
Previous code(s): B12-K03

B14-P02 **Infertility treatment**
1994

B14-P03 **Antiabortive**
1994
Previous code(s): B12-E09

B14-P04 **Sexual dysfunction**
Sexual dysfunction general.
2006

B14-P04A **. Male sexual dysfunction**
2006

B14-P04B **. Female sexual dysfunction**
2006

B14-P05 **Menopause/andropause and related symptoms**
To be searched for general references to menopause or andropause where precise hormones affected are not specified. Also may be searched in conjunction with other B14 codes where a condition is specifically attributed to menopause or andropause in the original document e.g. hot flashes.
2016

B14-R **COSMETICS**
1994
Previous code(s): B12-L02

B14-R01 **Cosmetic general and other**
1994
Previous code(s): B12-L02

B14-R02 **Hair preparation**
1994
Previous code(s): B12-L05

B14-R03 **Antiperspirant**
1994
Previous code(s): B12-L01

B14-R04 **Perfume**
1994
Previous code(s): B12-L07

B14-R05 **Sunscreen agent**
1994
Previous code(s): B12-L08

B14-S **MISCELLANEOUS ACTIVITY TERMS**
1994

B14-S01 **Multiple sclerosis treatment, demyelinating diseases**
1994
Previous code(s): B12-E01

B14-S02 **Dwarfism treatment**
1994
Previous code(s): B12-G04

B14-S03 **Gene therapy general**
1994

B14-S03A **. Gene therapy**
2002

B14-S03B **. Antisense therapy**
2002

B14-S03C **. RNA interference**
2005

B14-S03D **. shRNA Interference**
2008

B14-S04 **Diabetes**
This code is used when a drug targets the symptoms and associated disorders. Hypoglycemia is coded B14-F09.
1994
Previous code(s): B12-H05

B14-S04A **. Type II diabetes**
Also known as adult onset diabetes or non-insulin dependent diabetes.
2005

B14-S05 **Shock treatment general (excluding anaphylactic)**
Anaphylactic shock is coded B14-G02B.
1994
Previous code(s): B12-A07

B14-S06 **Toxic (septic) shock**
1994
Previous code(s): B12-A01,B12-A06

B14-S07 **Traumatic shock**
1994
Previous code(s): B12-C10

B14-S08 **Antioxidant/free radical scavenger**
1994

B14-S09 **Synergist**
1994
Previous code(s): B12-C09

B14-S10 **Cot death**
1994

B14-S11 **Vaccine general**
1994
Previous code(s): B02-V02

B14-S11A **. Antiviral vaccine**
1994
Previous code(s): B02-V02

B14-S11B **. Other antimicrobial vaccine**
e.g. antibacterial vaccine.
1994
Previous code(s): B02-V02

B14-S11B1 **.. Antibacterial vaccine**
2005

B14-S11B2 **.. Antiprotozoal vaccine**
2005

B14-S11B3 **.. Antiparasitic vaccine**
2005

B14-S11C **. Anticancer vaccine**
1994
Previous code(s): B02-V02

B14-S11D **. Vaccine type**
2005

B14-S11D1 **.. Whole-killed (inactive) vaccine**
2005

B14-S11D2 **.. Live-attenuated (weakened) vaccine**
2005

B14-S11D3 **.. Synthetic/genetically engineered vaccine**
2005

B14-S11E **. Therapeutic vaccine other**
Vaccine other than antimicrobial or anticancer e.g. immunocontraceptive or antiasthma vaccine. Unspecified vaccines should be searched under the general code B14-S11.
2015

B14-S11F **. Vaccine adjuvants general**
This code is also searched when three or more specific subcodes would be applied.
2023

B14-S11F1 **.. Aluminum adjuvants**
2023

B14-S11F2 **.. Freund's adjuvants**
2005

B14-S11F3 **.. Squalene based adjuvants**
2023

B14-S11F4 **.. Vitamin E/tocopherol based adjuvants**
2023

B14-S11F5 **.. Saponin based adjuvants**
2023

B14-S11F6 **.. Other adjuvants**
2023

B14-S12 **Veterinary**
Applied with other activity code(s) to indicate specific veterinary as opposed to medical use.
1994
Previous code(s): B12-L09

B14-S13 **Metabolic disorders**
Includes enzyme deficiencies and conditions arising from such.
2005

B14-S13A **. Acidosis**
2005

B14-S14 **Joint disorders general**
Includes conditions affecting tendons and bursa.
2005

B14-S14A **. Cartilage and connective tissue disorders**
2009

B14-S14B **. Soft tissue disorders**
2009

B14-S15 **Broad formulation**
Patent is concerned with the formulation type rather than the drugs contained in it.
2005

B14-S16 **Many diseases treated**
More than 15 diseases are said to be treated. Specific codes for the individual disease are still included.
2005

B14-S18 **Drug combination**
Used when specific combination of drugs is claimed.
2006

B14-S20 **Genetic disorder**
2006

B14-S20A **. Chromosomal abnormality disorder**
2006

B14-S20B **. Fabry disease**
2015

B14-S20C **. Hunter syndrome**
2015

B14-S21 **Cell therapy**
2006

B14-S21A **. Stem cell therapy**
2023

B14-S21B **. CAR T-cell therapy**
2023

B14-S22 **Prophylaxis**
Used only when a compound or formulation is solely for prophylaxis or prevention of a disorder.
2009

B14-S23 **Unspecified activity**
Prior to 2010, this code covered only Chinese medicine documents with no specific Western-style diseases mentioned as being treated. Applied to documents when a pharmaceutical formulation/ substance with pharmaceutical activity is claimed, but no specific disorders are mentioned as being treated, I.e., when no other activity codes can be applied.
2009

B14-S24 **Pediatrics/geriatrics**
Includes treatment for adolescents.
2009

B14-S25 **Chemotherapy**
2010

B14-S26 **Radiotherapy**
2010

B14-S27 **Electromagnetic therapy**
Includes ultrasound, sonodynamic therapy and phototherapy using high energy photons. Also includes electrical stimulation.
2010

B14-S28 **Prodrugs**
Applied only when the prodrug is the novelty of the invention.
2012

B14-Y **GREEN TECHNOLOGY**
Used when processes/productions are kinder to the environment. Also includes environmentally friendly apparatus.
2006

B14-Z **GREEN FORMULATION**
Used when formulations are kinder to the environment. Includes biodegradable.
2012

B15 VITAMINS (from 201101)

Note that for structurally modified vitamins the suffix A is appended to the relevant parent code. The following compounds although having vitamin activity, are indexed under the appropriate chemical classification only: nicotinic acid (B07-D04+), pantothenic acid (B10-C04D), folic acid (B06-D09), choline (B10-A22), inositol (B10-E04A), biotin (B06-F03), p-amino-benzoic acid (B10-B02A), linoleic acid (B10-C04E2) and other unsaturated acids.

B15-A **A VITAMINS**

B15-A00 **Vitamin A and carotenoids**
previously coded B03-A
2011

B15-A00A **. Modified vitamin A and carotenoids**
2011

B15-B **B VITAMINS**

B15-B00 **B vitamins general**
2011

B15-B00A **. Modified B vitamins general**
2011

B15-B01 **Vitamin B1 (thiamine)**
previously coded B03-B
2011

B15-B01A **. Modified vitamin B1 (thiamine)**
2011

B15-B02 **Vitamin B2 (riboflavin)**
previously coded B03-C
2011

B15-B02A **. Modified vitamin B2 (riboflavin)**
2011

B15-B06 **Vitamin B6 (pyridoxine)**
previously coded B03-D
2011

B15-B06A **. Modified vitamin B6 (pyridoxine)**
2011

B15-B12 **Vitamin B12 and cobalamine**
previously coded B03-E
2011

B15-B12A **. Modified vitamin B12 and cobalamine**
2011

B15-C **C VITAMINS**

B15-C00 **Vitamin C (ascorbic acid)**
previously coded B03-F
2011

B15-C00A **. Modified vitamin C (ascorbic acid)**
2011

B15-D **D VITAMINS**

B15-D00 **D vitamins general**
previously coded B03-G
2011

B15-D00A **. Modified D vitamins general**
2011

B15-D01 **Vitamin D1**
2011

B15-D01A **. Modified vitamin D1**
2011

B15-D02 **Vitamin D2**
2011

B15-D02A **. Modified vitamin D2**
2011

B15-D03 **Vitamin D3**
2011

B15-D03A **. Modified vitamin D3**
2011

B15-D04 **Vitamin D4**
2020

B15-D04A **. Modified vitamin D4**
2020

B15-D05 **Vitamin D5**
2020

B15-D05A **. Modified vitamin D5**
2020

B15-E **E VITAMINS**

B15-E00 **Vitamin E, tocopherols, tocotrienols**
Includes tocodienols and tocotrienols.
previously coded B03-H
2011

B15-E00A **. Modified vitamin E and tocopherols**
2011

B15-K **K VITAMINS**

B15-K00 **K vitamins general**
previously coded B03-J
2011

B15-K00A **. Modified K vitamins general**
2011

B15-K01 **Vitamin K1**
2011

B15-K01A **. Modified vitamin K1**
2011

B15-K02 **Vitamin K2**
2011

B15-K02A **. Modified vitamin K2**
2011

B15-K03	**Vitamin K3**	**2016**
B15-K03A	**. Modified vitamin K3**	**2016**
B15-K04	**Vitamin K4**	**2016**
B15-K04A	**. Modified vitamin K4**	**2016**
B15-K05	**Vitamin K5**	**2011**
B15-K05A	**. Modified vitamin K5**	**2011**
B15-K06	**Vitamin K6**	**2017**
B15-K06A	**. Modified vitamin K6**	**2017**
B15-K07	**Vitamin K7**	**2020**
B15-K07A	**. Modified vitamin K7**	**2020**
B15-P	**P VITAMINS**	
B15-P00	**Vitamin P** *previously coded B03-K*	**2011**
B15-P00A	**. Modified vitamin P**	**2011**
B15-X	**PROVITAMINS**	**2011**
B15-Z	**GENERAL OR UNSPECIFIED VITAMINS** *previously coded B03-L*	**2011**

C:
AGRICULTURAL CHEMICALS

C01 Steroids
C02 Antibiotics *(Vaccines pre-1994, see C14-S11 from 1994)*
C03 Vitamins *(pre-2011, see C15 from 201101)*
C04 Natural Products (or Genetically Engineered), Polymers
C05 Miscellaneous
C06 Heterocyclics, Fused Ring
C07 Heterocyclics, Mononuclear
C08 Aromatics, Polycarbocyclic
C09 Alicyclics, Polycarbocyclic
C10 Aromatics and Cycloaliphatics (Mono- and Bicyclic only), Aliphatics
C11 Processes, Apparatus
C12 Diagnostics and Formulation Types *(Therapeutic, Pesticidal, Herbicidal pre-1994)*
C14 Agricultural Activities
C15 Vitamins *(from 201101)*

C: AGRICULTURAL CHEMICALS

Before 1994 section C codes were generated by replacing "B" letter in Pharmaceuticals by "C". The notes referring to "B" codes applied equally to "C" codes in Agricultural Chemicals unless stated otherwise. A compound is normally assigned only one code from sections C01 to C10 according to the priority rule of C01 before C02 etc.

Compounds of known structure are always coded according to chemical structure in C05 to C10 and C15. However, steroids, antibiotics, vitamins and natural products (and their derivatives) are coded respectively in C01, C02, C03/C15 and C04 unless stated otherwise (see C03/15, C03-J, C03-K, C04-A07A, C04-A07E for exclusions).

The code commenced in 1963 for Pharmaceuticals (Farmdoc) and 1965 for Agricultural Chemicals (Agdoc).

C01 STEROIDS

This section covers all compounds containing the basic steroidal nucleus (cyclopentanophenanthrene ring), which may have other rings (carbocyclic or heterocyclic) fused onto it. Compounds which contain heteroatoms within the basic cyclopentanophenanthrene ring (e.g. azasteroids) are excluded. Homosteroids (containing extra carbon in the ring), norsteroids (missing one carbon in the ring) and secosteroids (bonds broken, e.g. vitamin D) are also excluded. Steroids of unknown structure are also coded under C04-B02D: (before 1994) or C04-J02 (after 1994). All groups listed include derivatives. Thus hydroxy includes ethers, esters and cyclic derivatives (linked via an oxygen atom to a steroid carbon atom). All the compound types listed may contain additional substituents, provided that they are not specified for an earlier occurring code.

Conventions used

1 Steroids containing thio-groups (e.g. mercapto or thione), are assigned the same code as the corresponding oxygen containing compounds.

2 17, 20 and 21 hydroxy include all cyclic derivatives linked via -O- to 17, 20 or 21, provided these are not linked via atoms other than O(S) to 17, 20 or 21 positions.

3 3, 17 and 20 ketone include oxime, hydrazone etc., hemi-ketal, ketal (including those cyclic derivatives which satisfy convention (2)).

4 In deciding precedence, the highest priority is given to the lowest number.

5 'Y' represents 2-4 carbon chain (including Z), but includes cyclic derivatives only when they satisfy conventions (2) or (3).

6 'Z' represents hydroxyacetyl or 1,2-di-hydroxyethyl (specific subset of Y).

C01-A	**1,3,5(10)-TRIENES**
C01-A01	**Estrones (3-ol, 17-one)**
C01-A02	**Estradiols (3,17-diol)**
C01-A03	**Others**
C01-B	**RING 'A' DIENES**
C01-B01	**Prednisones (3,11-dione; 17-ol; 17-Z)**

C01-B02	**Prednisolones (3-one; 11,17-diol; 17-Z)**
C01-B03	**Other 1,4-dienes**
C01-B04	**Others**
C01-C	**RING 'A' MONOENES**
C01-C01	**Cortisones (3,11-dione; 17-ol; 17-Z)**
C01-C02	**Cortisols (3-one; 11,17-diol; 17-Z)**
C01-C03	**17-hydroxylprogesterones (3-one; 17-acetyl)**
C01-C04	**Progesterones (3-one; 17-acetyl)**
C01-C05	**Testosterones (3-one; 17-ol)**
C01-C06	**Pregn(3 or 4)enes (17-Y)**
C01-C07	**Pregn(1 or 2)enes (17-Y)**
C01-C08	**Pregn(5(10) or 1(10))enes (17-Y)**
C01-C09	**Androst(3 or 4)enes**
C01-C10	**Androst(1 or 2)enes**
C01-C11	**Androst(5(10) or 1(10))enes**
C01-D	**SATURATED RING 'A'**
C01-D01	**Pregnanes (17-Y)** Including cardenolides and digoxin.
C01-D02	**Androstanes**
C01-E	**STEROIDS NO STRUCTURE**
C01-E	**Steroids no structure** Non-structural steroids other than steroid hormones e.g. plant sterols. *Previous code(s) : C04-J02* **2010**

C02 ANTIBIOTICS (Vaccines pre-1994, see C14-S11 from 1994)

Antibiotics are coded using the first letter of the parent antibiotic (where this is known or given), for example, dihydrostreptomycin is coded C02-S, chlortetracycline C02-T and adriamycin (doxorubicin) C02-D. Un-named or general antibiotics are coded C02-Z. Vaccines, anti-toxins used as vaccines etc. are coded C02-V02 (before 1994) and C14-S11+ (from 1994). "C" and "P" antibiotics including cephalosporins and penicillins are subdivided further. All antibiotics are covered in this section even if they are not being used for their antibiotic properties.

C02-C	**"C" ANTIBIOTICS, GENERAL**
C02-C	**General**
C02-C01	**"C" antibiotics other than cephalosporins** **1977**
C02-C02	**Ring modified cephalosporins** This code covers cephalosporins with no -(CH2)X (X=H or substituent) at 3-position, or two substituents at 7-position. **1977**
C02-C03	**Other 3 unsubstituted methyl, 7-monosubstituted cephalosporins** **1977**
C02-C04	**Other 7-monosubstituted cephalosporins** Including lactones. **1977**
C02-P	**"P" ANTIBIOTICS, GENERAL**
C02-P	**General**
C02-P01	**"P" antibiotics other than penicillins** **1977**
C02-P02	**6-acetamidopenicillins, alpha-substituted by N-atom** **1977**
C02-P03	**Other 6-acetamidopenicillins** **1977**
C02-P04	**Other penicillins** With beta-lactam ring with 6 position substituted by group other than acetamide **2012**
C02-V	**"V" ANTIBIOTICS, VACCINES (PRE-1994)**
C02-V	**General** **1965-1993**

C02-V01 **"V" Antibiotics**
1986

C02-V02 **Vaccines**
Excluding interferon. The code C12-A06 for antiviral is not additionally searchable.
1986-1993
Now coded as: C14-S11+

C02-V03 **Interferon**
Not additionally searchable as polypeptide C04-C01+.
1986-1993
Now coded as: C04-H05+

C02-Z **"Z" ANTIBIOTICS, GENERAL**

C02-Z **General**

C02-Z01 **Z antibiotics general**
2022

C03 VITAMINS (retired end 2010, coded in C15 from 201101)

Each sub-group includes related compounds with similar activity, and pro-vitamins. The following compounds although having vitamin activity, are indexed under the appropriate chemical classification only: nicotinic acid (C07-D04+), pantothenic acid (C10-C04D), folic acid (C06-D09), choline (C10-A22), inositol (C10-E04A), biotin (C06-F03), p-amino-benzoic acid (C10-B02A), linoleic acid (C10-C04E2) and other unsaturated acids.

C03-A **A and carotenoids**
now coded C15-A00+
retired end 2010

C03-B **B1 (thiamin)**
now coded C15-B01+
retired end 2010

C03-C **B2 (riboflavin)**
now coded C15-B02+
retired end 2010

C03-D **B6 (pyridoxine)**
now coded C15-B06+
retired end 2010

C03-E **B12 and cobalamine**
now coded C15-B12+
retired end 2010

C03-F **C (ascorbic acid)**
now coded C15-C00+
retired end 2010

C03-G **D (calciferol)**
now coded C15-D00+
retired end 2010

C03-H **E and tocopherols**
now coded C15-E00+
retired end 2010

C03-J **Vitamin K**
This code is applied only when a general term is used in a patent. Any specific compounds in this class are coded by structure only.
now coded C15-K00+
retired end 2010

C03-K **Vitamin P and others**
This code is applied only when a general term is used in a patent. Any specific compounds in this class are coded by structure only.
now coded C15-P00+
retired end 2010

C03-L **General**
now coded C15-Z00
retired end 2010

C04 NATURAL PRODUCTS (OR GENETICALLY ENGINEERED), POLYMERS

In general, natural products are coded according to their most descriptive feature (usually chemical), thus (i) milk is coded C04-B04K only, and not also C04-B04G (gland extract) or C04-B04L (mammalian extract); (ii) a polysaccharide obtained from a plant is coded C04-C02D only, and not also C04-A07F.

The following compounds and their derivatives are coded in C04 only, and not also according to their chemical structure:- tropanes, scopolamine, quinine, quinidine, lysergic acid, morphine, yohimbanes, xanthines, rotenone, pyrethroids, gibberellins, nucleosides and nucleotides, prostaglandins.

If a compound's structure or activity suggest it may be a natural product analogue it is coded in C04 and structurally.

To distinguish between specifically genetically engineered products and those prepared by other methods, the E suffix (engineered) is appended to codes introduced from 1994 in the appropriate format. For example interleukin 6 prepared by exogenous gene expression in a host is coded C04-H02G0E. All codes which have genetically engineered equivalents are marked #.

C04-A ALKALOIDS, PLANT EXTRACTS

C04-A01 **Belladonna**
Including tropanes and scopolamines.

C04-A02 **Cinchona**
Including quin(id)ines.

C04-A03 **Ergot**
Including lysergic acid.

C04-A04 **Opium**
Including morphines and morphinans from 198601 but excluding apomorphine.

C04-A05 **Rauwolfia**
Including yohimbanes.

C04-A06 **Xanthines**
i.e. 2,6-dioxopurines.

C04-A07A **. Other alkaloids**
This code is applied only when a general term is used in a patent. Any specific compounds in this class are coded by structure only, e.g. strychnine is coded C06-E05, vincamine C06-D18.
1965

C04-A07A1 **.. Vinca alkaloids**
Includes vincristine, vinblastine, vinorelbine and vindesine.
Previous code(s) : C06-D18
2010

C04-A07B **. Derris**
e.g. rotenone.
1965

C04-A07C **. Pyrethrins**
1965

C04-A07D **. Peat, straw, cereal, seeds, bran, whole plants, juice**
1965-1993
Now coded as: C04-A08, C04-A09

C04-A07D1 **.. Peat, humic acid**
1986-1993
Now coded as: C04-A09J

C04-A07D2 **.. Seeds, husks from seeds, seedmeal, cereal, grain**
1986-1993
Now coded as: C04-A09F

C04-A07D3 **.. Wood shavings, bark, sawdust**
1986-1993
Now coded as: C04-A09G

C04-A07D4 **.. Grass, straw, hay, plant stems, sap produced by pressing**
Excluding C04-A07D3.
1986-1993
Now coded as: C04-A09H

C04-A07D5 **.. Whole plants, leaves, whole mushrooms, flowers, plants produced by tissue culture**
Excluding C04-A07D4. C11-A is also coded.
1986-1993
Now coded as: C04-A08+, C04-A09A, C04-A09B, C04-A09D

C04-A07E **. Glycosides, saponins**
This code is applied only when a general term is used in a patent. Any specific compounds in this class are coded by structure only, e.g. glycyrrhizin is coded C07-A02B. Includes steroidal saponins.
1965

C04-A07F **. Plant extract general**
1965-1993
Now coded as: C04-A10

C04-A07F1 **.. Mushrooms, toadstools extracts**
1986-1993
Now coded as: C04-A10A

C04-A07F2 **.. Other plant extracts**
1986-1993
Now coded as: C04-A10B+, C04-A09C

C04-A08 # **Plant divisions and whole plants general and other**
E suffix is appended to respective whole plant codes for transgenic plants. N.B. Plant cells and plant tissue are coded C04-F08.
1994
Previous code(s): C04-A07D

C04-A08A # **. Bryophytes**
e.g.liverworts and mosses.
1994
Previous code(s): C04-A07D5

C04-A08A1 # **.. Marchantiophyta (liverworts)**
2012

C04-A08A2 # **.. Bryophyta (mosses)**
2012

C04-A08A3 # **.. Anthocerotophyta (hornworts)**
2012

C04-A08B # **. Pteridophytes**
e.g.ferns.
1994
Previous code(s): C04-A07D5

C04-A08B1 # **.. Psilotopsida**
2012

C04-A08B2 # **.. Equisetopsida**
2012

C04-A08B3 # **.. Marattiopsida**
2012

C04-A08B4 # **.. Polypodiopsida**
2012

C04-A08C # **. Spermatophytes**
1994-2011
Previous code(s): C04-A07D5

C04-A08C1 # **.. Gymnosperms**
e.g. conifers.
1994-2011
Previous code(s): C04-A07D5, now coded as C04-A08F+

C04-A08C2 # **.. Angiosperms**
e.g. flowering plants, grass, dicotyledons and monocotyledons.
1994-2011
Previous code(s): C04-A07D5, now coded as C04-A08G+

C04-A08D # **. Fungi (higher)**
e.g. mushrooms, toadstools, but not unicellular or microscopic fungi.
1994
Previous code(s): C04-A07D5

C04-A08D1 # **.. Ascomycota**
2012

C04-A08D2 # **.. Basidiomycota**
2012

C04-A08F # **. Gymnosperms**
2012
Previous code(s): C04-A07D5, C04-A08C1

C04-A08F1 # **.. Pinophyta (conifers)**
2012

C04-A08F2 # **.. Ginkgophyta**
2012

C04-A08F3 # **.. Cycadophyta (cycads)**
2012

C04-A08F4 # **.. Gnetophyta**
2012

C04-A08G # **. Angiosperms**
2012
Previous code(s): C04-A07D5, C04-A08C2

C04-A08G1 # **.. Monocots**
2012

C04-A08G2 # **.. Dicots**
2012

C04-A09 # **Plant parts general and other**
Plant parts derived from specific plant species are additionally coded in C04-A08.
1994
Previous code(s): C04-A07D

C04-A09A # **. Leaves**
1994
Previous code(s): C04-A07D5

C04-A09B # **. Flowers and parts**
Excluding pollen.
1994
Previous code(s): C04-A07D5

C04-A09C # **. Pollen**
1994
Previous code(s): C04-A07F, C04-B04C2

C04-A09D # **. Roots**
1994
Previous code(s): C04-A07D5

C04-A09F # **. Seeds, seed husks, seed meal, cereal, grain, nuts, bran**
1994
Previous code(s): C04-A07D2

C04-A09G # **. Wood, shavings, bark, sawdust**
1994
Previous code(s): C04-A07D3

C04-A09H # **. Straw, hay, stems, sap, plant resin**
includes propolis
1994
Previous code(s): C04-A07D4

C04-A09J # **. Peat, humic acid**
1994
Previous code(s): C04-A07D1

C04-A09K # **. Fruit**
2006
Previous codes(s): C04-A09

C04-A10 # **Plant extracts general and other**
Plant extracts derived from specific plant species are additionally coded in C04-A08. When the use of "Chinese herbal medicine" is claimed this code is applied.
1994
Previous code(s): C04-A07F

C04-A10A # **. Fungal extracts**
e.g. mushrooms, toadstools but not unicellular fungi.
1994
Previous code(s): C04-A07F1

C04-A10B # **. Leaf extracts**
1994
Previous code(s): C04-A07F2

C04-A10C # **. Flower extracts**
e.g. extracts from flower parts excluding pollen.
1994
Previous code(s): C04-A07F2

C04-A10D # **. Pollen extract**
1994
Previous code(s): C04-A07F, C04-B04C2

C04-A10F # **. Root extracts**
1994
Previous code(s): C04-A07F2

C04-A10G # **. Seed, seed husk, seed meal, cereal, grain and nut extracts**
1994
Previous code(s): C04-A07F2

C04-A10H # **. Wood shaving, bark, sawdust extracts**
1994
Previous code(s): C04-A07F2

C04-A10J # **. Straw, hay, stem and sap extracts**
1994
Previous code(s): C04-A07F

C04-A10K # **. Fruit extract**
2006

C04-A98 **Patent with herbal composition**
2012

C04-A99 **Patent with hybrid plant**
2012

C04-B ANIMAL, MICROBIOLOGICAL AND GENERAL EXTRACTS

C04-B01A **. Halogenated oils, waxes, etc.**
1965

C04-B01B **. Fats, lanolin, lipids, glycolipids**
1965

C04-B01C **. Oils and waxes general**

C04-B01C1 **.. Vegetable oils and waxes**
e.g. sunflower oil, soy bean oil, cotton seed oil.
1986

C04-B01C2 **.. Animal oils and waxes**
e.g. spermaceti, cod liver oil, honeycomb and beeswax.
1986

C04-B01C3 **.. Mineral oils and waxes**
e.g. vaseline, petroleum, liquid paraffin and synthetic oils.
1986

C04-B01D **. Other oil and wax derivatives**
Oils and waxes that are hydrogenated and/or modified by a polymer. May be applied in conjunction with codes from C04-B01C.
2010
Previous code(s): C04-B01C

C04-B02A **. Gibberellins**
1965

C04-B02B **. Microorganisms general**
1965-1993
Now coded as: C04-F01

C04-B02B1 **.. Bacteria**
e.g. Staphylococcus, Bacillus, Rickettsia.
1986-1993
Now coded as: C04-F10+

C04-B02B2 **.. Fungi**
e.g. Candida, Aspergillus.
1986-1993
Now coded as: C04-F09+

C04-B02B3 **.. Algae**
e.g. Spirella.
1986-1993
Now coded as: C04-F08

C04-B02B4 **.. Viruses**
1986-1993
Now coded as: C04-F11

C04-B02B5 .. **Others**
e.g. Mycoplasma.
1986-1993
Now coded as: C04-F06, C04-F07, C04-F10A4

C04-B02C . **Enzymes general**
The code C04-B02C is used when the type of enzyme is unspecified. When specific enzymes are given then these should be coded in C04-B02C1 to C04-B02C7 in preference to C04-B02C.
1965-1993
Now coded as: C04-L01

C04-B02C1 .. **Coenzymes**
1977-1993
Now coded as: C04-L02

C04-B02C2 .. **Oxidoreductases**
1977-1993
Now coded as: C04-L03+

C04-B02C3 .. **Hydrolases**
e.g. chymotrypsin, trypsin, papain, fibrinolysin, streptokinase, streptodorinase, collagenase, plasmin, plasminogen.
1977-1993
Now coded as: C04-L05+

C04-B02C4 .. **Transferases**
1986-1993
Now coded as: C04-L04+

C04-B02C5 .. **Lyases**
1986-1993
Now coded as: C04-L06

C04-B02C6 .. **Isomerases**
1986-1993
Now coded as: C04-L07

C04-B02C7 .. **Ligases (synthetases)**
1986-1993
Now coded as: C04-L08

C04-B02D . **Hormones and steroids general**
The code C12-G04 or C04-C01 is not additionally applied with C04-B02D2 to C04-B02D4 unless a structure is given in the patent.
1965-1993
Now coded as: C04-J01, C04-J02, C04-J03, C04-J04, C04-J05

C04-B02D1 .. **Steroidal hormones (no complete structure)**
1986-1993
Now coded as: C04-J02

C04-B02D2 .. **Pancreatic hormones**
1986-1993
Now coded as: C04-J03+

C04-B02D3 .. **Thyroid and parathyroid hormone**
e.g. calcitonin, thyrocalcitonin, parathyroid hormone and their derivatives.
1986-1993
Now coded as: C04-J04+

C04-B02D4 .. **Pituitary gland hormones**
e.g. neurohypophyseal, intermedin, chromophorotropic, melanocyte stimulating, melanophoric hormone, adreno-corticotropic hormone (ACTH) corticotropic, follicle stimulating (FSH), interstitial call stimulating, prolactin, mammotrophin, somatotropin, thyroid stimulating, thyrotropic, thyrotropin, vasopressin, chorionic gonadotropin, luteinising, growth and their derivatives.
1986-1993
Now coded as: C04-J05+

C04-B02E . **Prostaglandins**
From 197501 prostaglandins are coded C04-B02E only, and no longer according to their chemical structure.
1975-1993
Now coded as: C04-H03+

C04-B03 **Nucleosides and nucleotides general**
Coenzymes which are nucleotides are also coded C04-B02C1 (before 1994) or C04-L02 (from 1994). Nucleosides and nucleotides containing xanthine bases are coded C04-B03+ and not C04-A06.
1965

C04-B03A . **Nucleosides**
e.g. adenosine, guanosine, inosine, cytidine, uridine, thymidine. From 2005 chemically modified nucleosides are coded C04-B03D.
1986

C04-B03B . **Nucleotides**
e.g. adenylic acid, cytidylic acid. From 2005 chemically modified nucleotides are coded C04-B03E.
1986

C04-B03C . **Oligonucleotides**
This code is applied whenever the term "Oligonucleotide" is used in a patent, or otherwise to chains of 3 to 6 nucleotide units.
1994
Previous code(s): C04-B04A1, C04-B03B

C04-B03D . **Modified nucleosides**
E.g. C in ring, open chain structure. Compounds where the only modification is a deoxyribose sugar are searched as nucleosides.
2005
Previous code: C04-B03A

C04-B03E . **Modified nucleotides**
E.g. C in ring, open chain structure. Compounds where the only modification is a deoxyribose sugar are searched as nucleotides.
2005
Previous code: C04-B03B

C04-B03F . **Modified oligonucleotides**
Compounds where the only modification is one or more deoxyribose sugars are searched as oligonucleotides. For the most general references only.
2018

C04-B03F1 .. **Capped modified oligonucleotides**
Oligonucleotide must be composed of 7 or fewer nucleobases, see C04-E: for associated capped codes when 8 bases or longer. Includes trinucleotide cap and trinucleotide mRNA cap, particularly those based on m7G (7-methylated-guanine) and analogs.
2024

C04-B03F2 .. **Other modified oligonucleotides**
Oligonucleotide must be composed of 7 or fewer nucleobases.
2024

C04-B04A . **Proteins, nucleic acids, cells general**
For antigens see C04-B04C.
1965-1993
Now coded as: C04-E01, C04-F01, C04-N04, C04-N05, C04-N06

C04-B04A1 .. **DNA, vector DNA, RNA, nucleic acids**
1986-1993
Now coded as: C04-E02+, C04-E03+, C04-E04, C04-E05, C04-E06, C04-E07, C04-E08

C04-B04A2 .. **Plant cells**
1986-1993
Now coded as: C04-F08

C04-B04A3 .. **Animal cells**
For blood cells see C04-B04D, microbial cells see C04-B02B.
1986-1993
Now coded as: C04-F02, C04-F05, C04-F07

C04-B04A4 .. **Proteins from plants and mushrooms**
e.g. gluten.
1986-1993
Now coded as: C04-N01+

C04-B04A5 .. **Proteins from microorganisms**
1986-1993
Now coded as: C04-N03+

C04-B04A6 .. **Proteins from animals or insects**
e.g. gelatin, egg white, glycoproteins, gamma globulins, silk.
1986-1993
Now coded as: C04-N02+

C04-B04B . **Animal excrements general**
1965

C04-B04B1 .. **Urine**
1994
Previous code(s): C04-B04B

C04-B04B2 .. **Faeces**
1994
Previous code(s): C04-B04B

C04-B04C . **Antigens, general Antibody (pre-1994)**
1965
Previous code(s): C04-G01

C04-B04C1 .. **Microbial antigen**
When used as a vaccine then C02-V02 is coded (before 1994) or C14-S11+ (from 1994).
1986

C04-B04C2 .. **Other antigens**
Material which is antigenic is also coded.
1986

C04-B04C3 .. **Microbial antibody**
1986-1993
Now coded as: C04-G07, C04-G08, C04-G09

C04-B04C4 .. **Anticancer antibody**
1986-1993
Now coded as: C04-G05

C04-B04C5 .. **Monoclonal antibody**
1986-1993
Now coded as: C04-G21

C04-B04C6 .. **Other antibody including immunoglobulin and haemaglutinin**
1986-1993
Now coded as: C04-G02, C04-G03, C04-G04, C04-G06, C04-G10, C04-G20, C04-G22

C04-B04C7 .. **Haptens**
A substance which can combine with antibody but cannot itself initiate an immune response unless it is attached to a carrier molecule.
1994
Previous code(s): C04-B04C

C04-B04C8 .. **Cancer antigen**
2005

C04-B04C9 .. **Allergen**
An antigenic substance capable of producing immediate type hypersensitivity (i.e. an allergic reaction). The specific substance which is antigenic is additionally coded (e.g. C04-C08C2 + C04-A09C for pollen).
2005

C04-B04D . **Blood and derivatives general**
1965

C04-B04D1 .. **Blood cells and derivatives**
Including leucocytes, erythrocytes, lymphocytes). These are not coded under C04-B04A3.
1986-1993
Now coded as: C04-F04

C04-B04D2 .. **Blood proteins**
Excluding blood factors. e.g. serum albumin, hemoglobin, fibrinogen (prior to 198601 see also C04-B04A). From 1994 all clotting factors including fibrin and fibrinogen are coded under C04-H19.
1986

C04-B04D3 .. **Blood factors**
e.g. clotting factors, thrombin (see also C04-B02C3 for prothrombin, fibrinogen).
1986-1993
Now coded as: C04-H01, C04-H13, C04-H14, C04-H15, C04-H19

C04-B04D4 .. **Blood serum, plasma**
Excluding C04-B04D2/3.
1986

C04-B04D5 .. **Whole blood**
Excluding C04-B04D1 to C04-B04D4.
1986

C04-B04E . **Bone, marrow, nails, skin, teeth**
Includes skin and hair as well as extracts. Also includes horn extract, shell extract and shell powder.
1965, 2010

C04-B04F . **Enzyme inhibitors**
1965-1993
Now coded as: C04-M01

C04-B04G . **Gland extracts**
Includes saliva, snake venom and musk.
1965

C04-B04H . **Organ extracts**
Including extracts from all body organs, such as, heart, kidney, liver, placenta, nerve, brain, lung, pancreas, intestine, stomach
1965

C04-B04J . **Metabolic factors**
1965-1993
Now coded as: C04-H01, C04-H04+, C04-H06+, C04-H08, C04-H09, C04-H10, C04-H12, C04-H13, C04-H14, C04-H16, C04-H17, C04-H18

C04-B04K . **Milk**
Including derivatives.
1965

C04-B04L . **Other mammalian extracts**
This code is used for mammalian extracts only (from 1994). For whole mammals see C04-P.
1965

C04-B04M . **Other non-mammalian extracts**
This code is used for non-mammalian extracts only (from 1994). For whole animals see C04-P.
1965

C04-B04M1 .. **Arthropod**
2012

C04-B04M2 .. **Amphibian**
2012

C04-B04M3 .. **Reptile**
2012

C04-B04M4 .. **Fish**
2012

C04-B04M5 .. **Avian**
2012

C04-B04M6 .. **Trochozoa**
Includes annelids (worms) and molluscs.
2017

C04-B04N . **Eggs**
Used when the source of the eggs is not specified or where all three subcodes are applicable. Also includes egg parts and egg extracts. Avian eggs code as C04-B04N1 from 201501.
2014

C04-B04N1 .. **Avian eggs**
2015
Previous code(s): C04-B04N

C04-B02N2 .. **Fish eggs, fish roe**
2015

C04-B04N3 .. **Eggs from other sources**
Includes insect and reptile eggs.
2015

C04-C **POLYMERS**
The generic codes C04-C01, C04-C02 and C04-C03 are only used for general disclosures which would otherwise require several specific codes. Therefore when a specific code is searched, the corresponding generic code must also be searched.

C04-C01 **Polypeptides general**
Polypeptides containing four or more peptide units are coded from C04-C01A to C04-C01G only, tripeptides are coded both C04-C01A and according to their chemical structure (in C05 to C10) and dipeptides are coded according to their chemical structures only. Cystine represents two amino acid residues. Polypeptide/protein sequences are further coded under C04-N.

C04-C01A . **3 to 5 alpha amino acid residues**
1986

C04-C01B . **6 to 10 alpha amino acid residues**
1986

C04-C01C . **11 to 15 alpha amino acid residues**
1986

C04-C01D . **16 to 20 alpha amino acid residues**
1986

C04-C01E . **21 to 25 alpha amino acid residues**
1986

C04-C01F . **26 to 30 alpha amino acid residues**
1986

C04-C01G . **31 or more alpha amino acid residues**
This code also includes proteins of defined amino acid sequence.
1986

C04-C01H . **Modified and/or cyclic peptides**
Includes analogs. Should be applied in conjunction with a length code selected from C04-C01A to C04-C01G. Not used for peptides cyclized purely by disulfide bridge formation.
2005

C04-C02 **Polysaccharides general**
These must contain at least 7 sugar residues in sequence.

C04-C02A . **Cellulose and derivatives**
1986

C04-C02A1 .. **Unmodified cellulose**
1986

C04-C02A2 .. **Cellulose ethers**
e.g. carboxymethylcellulose.
1986

C04-C02A3 .. **Cellulose esters**
e.g. cellulose acetate.
1986

C04-C02B . **Starch, dextrin and derivatives**
1986

C04-C02B1 .. **Cyclodextrin and derivatives**
1986

C04-C02B2 .. **Unmodified starch**
1986

C04-C02B3 .. **Modified starch**
Includes derivatives of starch such as carboxymethylstarch.
2010
Previous code(s): C04-C02B

C04-C02B4 .. **Dextrin**
2012

C04-C02C . **Dextran**
1986

C04-C02D . **Polysaccharides from plant**
Excluding cellulose, starch, dextran, dextrin. Including pectin, plant gums, alginate, agar. Code(s) for the appropriate plant division(s) are also applied, if source plant(s) known.
1986

C04-C02E . **Polysaccharides from animal, bird, reptile or arthropod**
1986

C04-C02E1 .. **Heparin (optionally modified)**
1986

C04-C02E2 .. **Chondroitin (optionally modified)**
1986

C04-C02E3 .. **Chitin (optionally modified)**
C04-C02F may be also searched if chitin is obtained from fungal source.
1986

C04-C02E4 .. **Hyaluronic acid (optionally modified)**
2012

C04-C02F . **Polysaccharides from microbial sources**
Polysaccharide which is modified microbiologically can be also searched under the code for the original polysaccharide.
1986

C04-C02V . **Lipopolysaccharide**
1994
Previous code(s): C04-C02,C04-B01B

C04-C02X . **Oligosaccharides**
This code is applied whenever the term oligosaccharide is used in a patent, or otherwise to chains of 3 to 6 sugar units. Tetrahydropyran(furan) are **not** coded unless they are ring modified.
1994

C04-C03 **Polymers general**

C04-C03A . **Poly N-vinyl-lactams**
1975

C04-C03B . **Other addition**
1975

C04-C03C . **Polyethers**
Including thioethers and sulfides.
1975

C04-C03D . **Natural, other condensation**
1994

C04-C03E # . **Dendrimers**
2002

C04-C03F . **Silicones**
2005
Previous code: C04-C03D

C04-D **OTHER NATURAL PRODUCTS**

C04-D01 **Sugars (mono- or disaccharides)**
This code is used for sugars of undefined structure only, or when the sugar is an essential ingredient of a pharmaceutical composition. Includes molasses.

C04-D01A . **Honey**
2011

C04-D02 **Others**
Includes any other natural product not covered by other codes e.g. clay, minerals, etc.

C04-D03 **Biomass**
1994
Previous code(s): C04-A07D, C04-A07F, C04-B02B, C04-B04B, C04-B04L, C04-B04M

C04-E **NUCLEIC ACIDS**
E suffix is not appended to the codes in this section.
1994

C04-E01 **Nucleic acid general and other**
This code covers only non-specific or general nucleic acid. It is not used to replace three or more codes for specific forms of DNA/RNA which are all coded individually in section C04-E02 to C04-E08. For example, if a patent claims: 1) a DNA construct coding for 5-HT receptor, 2) a vector, 3) a nucleic acid probe, 4) antisense oligonucleotide, the codes are: C04-B03C, C04-E03D, C04-E05, C04-E06, C04-E08.
1994
Previous code(s): C04-B04A1

C04-E01A . **DNA**
Deoxyribonucleic acid.
2018

C04-E01B . **RNA**
Ribonucleic acid.
2018

C04-E01X . **Capped nucleic acids**
Includes trinucleotide capped sequences, particularly those based around m7G (7-methylated guanine) and analogs. To be searched alongside all other applicable codes from C04-E relating to the nucleic acid.
2024

C04-E02 **Altered DNA coding sequences**
This code includes engineered, recombinant constructs, chimeric genes, heterologous genes, fusion genes, allelic variants, mutant allele and RNA transcripts.
1994
Previous code(s): C04-B04A1

C04-E02A . **Coding for antibodies**
1994
Previous code(s): C04-B04A1

C04-E02B . **Coding for modifiers of cell function and growth**
1994
Previous code(s): C04-B04A1

C04-E02C . **Coding for hormones**
1994
Previous code(s): C04-B04A1

C04-E02D . **Coding for receptors**
1994
Previous code(s): C04-B04A1

C04-E02E . **Coding for enzymes**
1994
Previous code(s): C04-B04A1

C04-E02F . **Coding for other protein/polypeptide**
1994
Previous code(s): C04-B04A1

C04-E02G . **Oncogene**
2002

C04-E02H . **Encoding fusion protein**
2002

C04-E02J . **Encoding antigens**
2007
Previous code(s): C04-E02F

C04-E02K . **Encoding nucleic acid**
2009

C04-E03 **Other DNA coding sequences**
These codes cover wild type genes and their fragments, and include their RNA transcripts.
1994
Previous code(s): C04-B04A1

C04-E03A . **Coding for antibodies**
1994
Previous code(s): C04-B04A1

C04-E03B . **Coding for modifiers of cell function and growth**
1994
Previous code(s): C04-B04A1

C04-E03C . **Coding for hormones**
1994
Previous code(s): C04-B04A1

C04-E03D . **Coding for receptors**
1994
Previous code(s): C04-B04A1

C04-E03E . **Coding for enzymes**
1994
Previous code(s): C04-B04A1

C04-E03F . **Coding for other protein/polypeptide**
1994
Previous code(s): C04-B04A1

C04-E03G . **Oncogene**
2002

C04-E03H . **Encoding fusion protein**
2002-2008

C04-E03J . **Encoding antigens**
2007
Previous code(s): C04-E03F

C04-E03K . **Encoding nucleic acid**
2009

C04-E04 **Promoters, enhancers, regulatory sequences**
1994
Previous code(s): C04-B04A1

C04-E05 **Primers, probes**
Probes are coded in conjunction with C12-K04G codes, e.g. a probe for detecting cancer is coded C04-E05 and C12-K04G2A.
1994
Previous code(s): C04-B04A1

C04-E06 **Antisense sequences**
Excluding antisense probes.
1994
Previous code(s): C04-B04A1

C04-E07 **Other non-coding sequences**
This code includes ribozyme, ribosomal, transfer, mitochondrial.
1994
Previous code(s): C04-B04A1

C04-E07A . **Ribozyme**
An RNA molecule that has catalytic activity.
2005

C04-E07B . **DNAzyme**
A DNA molecule that has catalytic activity.
2005

C04-E07C . **siRNA (short interfering RNA)**
Double stranded short RNA molecules that bind to RNA and target them for degradation and/or destruction.
2005

C04-E07D . **miRNA**
Micro RNA.
2005

C04-E07E . **shRNA**
Small hairpin RNA.
2006

C04-E07F . **Aptamer**
2007

C04-E08 **Vectors, plasmids, cosmids, transposons**
Viral vector is coded under virus.
1994
Previous code(s): C04-B04A1

C04-E09 **Single Nucleotide Polymorphism (SNP)**
2002

C04-E10 **Peptide nucleic acid**
2002

C04-E11 **Other analog nucleic acid**
2002

C04-E12 **Reporter/marker nucleic acid**
2002

C04-E13 **CRISPR**
Clustered Regularly Interspaced Short Palindromic Repeats. Includes SPIDR (Spacer Interspersed Direct Repeats). May be additionally searched with CRISPR nuclease (C04-L05A2) if the system also contains a claimed enzymatic component e.g. CRISPR/Cas system.
1994

C04-E14 **Bacterial nucleic acid**
2021

C04-E15 **Viral nucleic acid**
2021

C04-E16 **Fungal nucleic acid**
2022

C04-E99 **Patent with Geneseq record**
2008

C04-F **CELLS, MICROORGANISMS, TRANSFORMANTS, HOSTS**
E suffix is appended to codes for cells which are products of genetic manipulation, but not to naturally occurring mutant microbial strains, cell fusion products or chemical mutagenesis products.
1994

C04-F01 # **Cells, microorganisms, transformants, hosts, cell lines, tissue general**
1994
Previous code(s): C04-B02B, C04-B04A, C04-B04D1

C04-F02 # **Mammal (including human)**
1994
Previous code(s): C04-B04A3

C04-F02A # **. Cancer cells/carcinoma**
2002

C04-F02B # **. Stem cells**
Cell that can replicate indefinitely and differentiate into other cells.
2005

C04-F02C # **. Progenitor cells**
Cell that is more advanced than a stem cell, giving rise to a distinct cell lineage.
2017

C04-F03 # **Sperm, ova (germ cells)**
1994
Previous code(s): C04-B02D

C04-F04 # **Blood cells (general)**
This code covers non-specific blood cells or when three or more specific types of blood cells are mentioned.
1994
Previous code(s): C04-B04D1

C04-F04A # **. Red blood cells**
2006
Previous code(s): C04-F04

C04-F04B # **. White blood cells (general)**
This code is used when non-specific white blood cells are mentioned or when three or more white blood cell types are mentioned.
2006
Previous code(s): C04-F04

C04-F04B1 # **.. Lymphocytes**
2006
Previous code(s): C04-F04

C04-F04B1A **... T-lymphocytes**
2006
Previous code(s): C04-F04

C04-F04B1B **... B-lymphocytes**
2006
Previous code(s): C04-F04

C04-F04B2 # **.. Other white blood cells**
2006
Previous code(s): C04-F04

C04-F04B2A **... Dendritic cells**
2006
Previous code(s): C04-F04

C04-F04B2B **... Macrophages**
2006
Previous code(s): C04-F04

C04-F04B2C **... Neutrophils**
2006
Previous code(s): C04-F04

C04-F04B2D **... Others**
2006
Previous code(s): C04-F04

C04-F05 # **Hybridoma**
1994
Previous code(s): C04-B04A3

C04-F05A # **. Chimeric & fused cells**
Cells comprising or formed from components derived from two separate cell types, not including hybridomas coded under C04-F05.
2005

C04-F06 # **Protozoa**
1994
Previous code(s): C04-B02B5

C04-F07 # **Other animal**
1994
Previous code(s): C04-B04A3

C04-F07A # . **Arthropod**
2002

C04-F07B # . **Amphibian**
2002

C04-F07C # . **Reptile**
2002

C04-F07D # . **Fish**
2002

C04-F07E # . **Avian**
2006
Previous code(s): C04-F07

C04-F08 # **Plant/algae**
1994
Previous code(s): C04-B04A2, C04-B02B3

C04-F08A # . **Algae**
Includes diatoms.
2008

C04-F09 # **Yeast/fungus general and other**
1994
Previous code(s): C04-B02B2

C04-F09A # . **Aspergillus**
e.g. A. nidulans, A. fumigatus, A. flavus, A. niger, A. oryzae.
1994
Previous code(s): C04-B02B2

C04-F09B # . **Neurospora**
e.g. N. crassa.
1994
Previous code(s): C04-B02B2

C04-F09C # . **Saccharomyces**
e.g. S. pombe, S. cerevisiae (brewer's yeast)
1994
Previous code(s): C04-B02B2

C04-F09D # . **Pichia**
e.g. Pichia pastoris
2005

C04-F09E # . **Multicellular fungi, non-higher**
2012

C04-F10 # **Bacteria general**
1994
Previous code(s): C04-B02B1

C04-F10A # . **Gram-negative genera, general and other**
1994
Previous code(s): C04-B02B1

C04-F10A1 # .. **Bordetella**
e.g. B. pertussis.
1994
Previous code(s): C04-B02B1

C04-F10A2 # .. **Borrelia**
1994
Previous code(s): C04-B02B1

C04-F10A3 # .. **Escherichia**
e.g. E. coli.
1994
Previous code(s): C04-B02B1

C04-F10A4 # .. **Mycoplasma**
e.g. M. pneumoniae, M. mycoides.
1994
Previous code(s): C04-B02B1

C04-F10A5 # .. **Neisseria**
e.g. N. gonorrhoeae, N. meningitides.
1994
Previous code(s): C04-B02B1

C04-F10A6 # .. **Pseudomonas**
e.g. P. aeruginosa, P. mallei.
1994
Previous code(s): C04-B02B1

C04-F10A7 # .. **Rickettsia**
e.g. R. prowazekii.
1994
Previous code(s): C04-B02B1

C04-F10A8 # .. **Salmonella**
e.g. S. typhi.
1994
Previous code(s): C04-B02B1

C04-F10A9 # .. **Vibrio**
e.g. V. cholerae, V. parahemolyticus.
1994
Previous code(s): C04-B02B1

C04-F10B # . **Gram-positive genera, general and other**
1994
Previous code(s): C04-B02B1

C04-F10B1 # .. **Bacillus**
e.g. B. subtilis.
1994
Previous code(s): C04-B02B1

C04-F10B2 # .. **Mycobacteria**
e.g. M. tuberculosis, M. bovis, M. leprae, M. phlei.
1994
Previous code(s): C04-B02B1

C04-F10B3 # .. **Staphylococcus**
e.g. S. aureus, S. epidermidis.
1994
Previous code(s): C04-B02B1

C04-F10B4 # .. **Streptococcus**
e.g. S. pyogenes, S. fecalis.
1994
Previous code(s): C04-B02B1

C04-F10B5 # .. **Streptomyces**
e.g. S. griseus, S. scabies.
1994
Previous code(s): C04-B02B1

C04-F11 # **Viruses**
Including bacteriophage lambda and viral vectors.
1994
Previous code(s): C04-B02B4

C04-F11A # **. DNA virus general**
Virus that infects foreign DNA into host cell, which then produces viral protein.
2005

C04-F11A1 # **.. Adenovirus**
Includes adeno-associated virus.
2007

C04-F11B # **. RNA virus general**
Virus that infects foreign RNA into host cell, where the DNA sequence is then transcribed and viral protein produced.
2005

C04-F11B1 # **.. Retrovirus**
2007

C04-F11B2 # **.. Coronavirus**
Including COVID-19.
2021

C04-F12 # **Minicells & organelles**
E.g. mitochondria and any sub-cellular particle.
2005

C04-F12A # **. Chloroplasts**
2022

C04-F13 # **Platelets**
2010

C04-G **ANTIBODY DEFINED IN TERMS OF ANTIGEN**
E suffix is appended only when the antibody is produced by genetic methods beyond standard hybridoma technology.
1994

C04-G01 # **General and other**
Also includes general and unspecified immunoglobulins (specific immunoglobulins may be searched under the heading C04-G27:).
1994
Previous code(s): C04-B04C

C04-G01A **. Chimeric antibody**
An antibody genetically engineered to contain the variable fragment from one species fused to the constant region from another species.
2005

C04-G01B # **. Human antibody**
An antibody produced from a single human cell line.
2005

C04-G01C **. Humanised antibody**
An antibody from a single cell line genetically engineered to contain around 90% human protein, reducing the likelihood of an immune response.
2005

C04-G01D # **. Murine antibody**
An antibody produced from a single mouse cell line.
2005

C04-G02 # **Antimodifier of cell function and growth, antihormone antibody**
1994
Previous code(s): C04-B04C6

C04-G03 # **Antienzyme antibody**
1994
Previous code(s): C04-B04C6

C04-G04 # **Antireceptor antibody**
1994
Previous code(s): C04-B04C6

C04-G05 # **Anticancer cell antibody**
1994
Previous code(s): C04-B04C4

C04-G06 # **Antiblood cells antibody**
e.g. antibody to T-cell, B-cell.
1994
Previous code(s): C04-B04C6

C04-G07 # **Antibacteria antibody**
1994
Previous code(s): C04-B04C3

C04-G08 # **Antivirus antibody**
1994
Previous code(s): C04-B04C3

C04-G09 # **Antimicroorganisms (other) antibody**
1994
Previous code(s): C04-B04C3

C04-G09A # **. Antifungus antibody**
2008

C04-G09B # **. Antiprotozoal antibody**
2008

C04-G10 # **Antiplant antibody**
1994
Previous code(s): C04-B04C6

C04-G11 # **Antibody binding to another antibody**
Also includes anti-idiotypic antibody.
2006

C04-G12 # **Antiparasitic antibody**
Antibody acting against parasitic organisms/any kind of parasites other than bacteria, virus, fungi, protozoa.
2011

C04-G20 # **Catalytic antibodies**
Including abzyme. This code defines antibodies other than in terms of their antigen and may be applied in conjunction with another C04-G code.
1994
Previous code(s): C04-B04C6

C04-G21 # **Monoclonal antibody**
This code defines antibodies other than in terms of their antigen and may be applied in conjunction with another C04-G code.
1994
Previous code(s): C04-B04C5

C04-G22 # **Polyclonal antibodies**
This is another definition of antibodies than in terms of antigen. This code is applied in conjunction with one of C04-G01 to C04-G20.
1994
Previous code(s): C04-B04C6

C04-G23 # **Antibody fragments**
2006

C04-G24 # **Bispecific antibodies**
2006

C04-G25 # **Anti-prion protein antibodies**
2008

C04-G26 # **Heterospecific antibody**
An individual antibody which can bind more than one antigen due to the presence of two or more different binding sites. May be searched in conjunction with additional codes from C04-G.
2016

C04-G27 **Immunoglobulins (specific)**
Only specific immunoglobulins are covered within this coding section. General and unspecified immunoglobulins should be searched using C04-G01.
2016

C04-G27A # **. Immunoglobulin A**
May be searched in conjunction with additional codes from C04-G.
2016

C04-G27D # **. Immunoglobulin D**
May be searched in conjunction with additional codes from C04-G.
2016

C04-G27E # **. Immunoglobulin E**
May be searched in conjunction with additional codes from C04-G.
2016

C04-G27G # **. Immunoglobulin G**
May be searched in conjunction with additional codes from C04-G.
2016

C04-G27M # **. Immunoglobulin M**
May be searched in conjunction with additional codes from C04-G.
2016

C04-G27X # **. Immunoglobulin X**
May be searched in conjunction with additional codes from C04-G. Not coded where X is stated in the document to represent an undefined or general immunoglobulin.
2024

C04-G27W # **. Immunoglobulin W**
Found in sharks and skates; related to mammalian IgD. May be searched in conjunction with additional codes from C04-G.
2021

C04-G27Y # **. Immunoglobulin Y**
May be searched in conjunction with additional codes from C04-G.
2020

C04-H **MODIFIERS OF CELL FUNCTION AND GROWTH**
The term "modifier of cell function and growth" includes all biological response modifiers (immune system mediators) such as: prostaglandins, cytokines, monokines, interleukines, lymphokines (a subset of interleukines), CSFs, interferons, the growth factors, somatomedins and blood factors. All of these are proteins except for prostaglandins. The E suffix is appended to codes to indicate that molecules are produced by exogenous gene expression in host cells as well as derivatives modified at the genetic level.
1994

C04-H01 # **Modifier of cell function and growth general and other**
This code is applied when either a generic term such as cytokine, is used or when a specific substance does not fit into any category covered by C04-H02 to C04-H20B. It also includes blood factors general and other.
1994
Previous code(s): C02-V03, C04-B02C, C04-B02E, C04-B04A, C04-B04D, C04-C01

C04-H02 # **Interleukins general and other**
1994
Previous code(s): C04-C01G

C04-H02A # . **Interleukin 1**
1994
Previous code(s): C04-C01G

C04-H02B # . **Interleukin 2**
1994
Previous code(s): C04-C01G

C04-H02C # . **Interleukin 3 (Multi-CSF)**
1994
Previous code(s): C04-C01G

C04-H02D # . **Interleukin 4**
1994
Previous code(s): C04-C01G

C04-H02F # . **Interleukin 5**
1994
Previous code(s): C04-C01G

C04-H02G # . **Interleukin 6**
1994
Previous code(s): C04-C01G

C04-H02H # . **Interleukin 7**
1994
Previous code(s): C04-C01G

C04-H02J # . **Interleukin 8 (NAP, Neutrophil Activating Protein)**
1994
Previous code(s): C04-C01G, C04-B04A

C04-H02K # . **Interleukin 9**
1994
Previous code(s): C04-C01G

C04-H02L # . **Interleukin 10**
1994
Previous code(s): C04-C01G

C04-H02M # . **Interleukin 11**
1994
Previous code(s): C04-C01G

C04-H02N # . **Interleukin 12**
1994
Previous code(s): C04-C01G

C04-H02P # . **Interleukin 13**
1994
Previous code(s): C04-C01G

C04-H02Q # . **Interleukins 14-20**
2006
Previous code(s): C04-H02

C04-H02R # . **Interleukins 21-25**
2006
Previous code(s): C04-H02

C04-H02S # . **Interleukins 26-30**
2006
Previous code(s): C04-H02

C04-H02T # . **Interleukins 31-35**
2006
Previous code(s): C04-H02

C04-H03 **Prostaglandins general and other**
Includes all modified prostaglandins not covered more specifically in subcodes.
2016
Previous code(s): C04-B02E

C04-H03A . **Prostaglandin E1**
1994
Previous code(s): C04-B02E

C04-H03B . **Prostaglandin E2**
1994
Previous code(s): C04-B02E

C04-H03C . **Prostaglandin F2 alpha**
1994
Previous code(s): C04-B02E

C04-H03D . **Prostacyclin (Prostaglandin I2)**
1994
Previous code(s): C04-B02E, C06-A02

C04-H03F . **Leukotrienes**
1994
Previous code(s): C04-B02E, C07-A03, C10-B02D, C10-C04D

C04-H03G . **Thromboxanes**
1994
Previous code(s): C04-B02E, C06-A02,C07-A02

C04-H04 # **CSFs (Colony Stimulating Factors) General and other**
1994
Previous code(s): C04-B04J

C04-H04A # . **G-CSF (Granulocyte Colony Stimulating Factor)**
1994
Previous code(s): C04-B04J

C04-H04B # . **M-CSF (Macrophage Colony Stimulating Factor)**
1994
Previous code(s): C04-B04J

C04-H04C # . **GM-CSF (Granulocyte Macrophage Colony Stimulating Factor)**
1994
Previous code(s): C04-B04J

C04-H04D # **. MEG-CSF (Megakaryocyte Colony Stimulating Factor)**
1994
Previous code(s): C04-B04J

C04-H05 # **Interferons general and other**
1994
Previous code(s): C02-V03

C04-H05A # **. Interferon alpha**
1994
Previous code(s): C02-V03

C04-H05B # **. Interferon beta**
1994
Previous code(s): C02-V03

C04-H05C # **. Interferon gamma**
1994
Previous code(s): C02-V03

C04-H05D # **. Interferon delta**
2024
Previous code(s): C02-V03

C04-H05K # **. Interferon kappa**
2024
Previous code(s): C02-V03

C04-H06 # **Growth factors general and other**
1994
Previous code(s): C04-B04J

C04-H06A # **. EGF (Epidermal Growth Factor)**
1994
Previous code(s): C04-B04J

C04-H06B # **. PDGF (Platelet Derived Growth Factor)**
1994
Previous code(s): C04-B04J

C04-H06C # **. MDGF (Macrophage Derived Growth Factor)**
1994
Previous code(s): C04-B04J

C04-H06D # **. NGF (Nerve Growth Factor)**
1994
Previous code(s): C04-B04J

C04-H06F # **. TGF (Transforming Growth Factor)**
1994
Previous code(s): C04-B04J

C04-H06G # **. FGF (Fibroblast Growth Factor)**
1994
Previous code(s): C04-B04J

C04-H06H # **. Somatomedins, sulfation factors**
This code includes IGF's (insulin-like growth factors).
1994
Previous code(s): C04-B04J

C04-H06J # **. PGF (Prostatic Growth Factor)**
1994
Previous code(s): C04-B04J

C04-H06K # **. HGF (Hepatocyte Growth Factor)**
1994
Previous code(s): C04-B04J

C04-H06L # **. Bone morphogenetic protein**
2002

C04-H06M # **. Vascular endothelial growth factor**
Also known as VEGF.
2006
Previous code(s): C04-H06

C04-H07 # **Erythropoietin (Epo), thrombopoietin**
1994
Previous code(s): C04-B04A6, C04-B02D, thrombopoietin C04-H06 (pre-2010)

C04-H08 # **TNF (Tumor Necrosis Factor)**
1994
Previous code(s): C04-B04J

C04-H09 # **LIF (Leukemia inhibitory factor)**
1994
Previous code(s): C04-B04J

C04-H10 # **MIS (Mullerian inhibitory substance)**
1994
Previous code(s): C04-B04J

C04-H11 # **MIP (Macrophage inflammatory protein)**
1994
Previous code(s): C04-B04A6

C04-H12 # **Megakaryocyte potentiator**
1994
Previous code(s): C04-B04A6, C04-B04J

C04-H13 # **Lymphotoxin (LT)**
1994
Previous code(s): C04-B04A6, C04-B04D3, C04-B04J

C04-H14 # **PAF (Platelet activating factor)**
1994
Previous code(s): C04-B04D3, C04-B04J

C04-H15 # **PA (Plasminogen Activator)**
1994
Previous code(s): C04-B02C3, C04-B04D3

C04-H16 # **SCF (Stem Cell Factor)**
1994
Previous code(s): C04-B04J

C04-H17 # **T-Activin (TA, Thymic factor)**
1994
Previous code(s): C04-B04A6, C04-B04J

C04-H18 # **Activin A (EDF, Erythroid differentiation factor)**
1994
Previous code(s): C04-B04A6, C04-B04J

C04-H19 # **Clotting factors**
Including: thrombin (fibrinogenase, thrombase), prothrombin (thrombinogen, Factor II), fibrin, fibrinogen (Factor I), Factor III (tissue thromboplastin, tissue factor), Factor V (proaccelerin, accelerator globulin (AcG), labile factor), Factor VII (proconvertin, thrombokinase, autoprothrombin I, serum prothrombin conversion accelerator (SPCA), stable factor), Factor VIII (antihemophilic globulin (AHG), antihemophilic factor A), Factor IX (plasma thromboplastin component (PTC), autoprothrombin II, Christmas factor, antihemophilic factor B), FactorX (stuart factor, autoprothrombin C, Prower factor, Stuart-Prower factor, thrombokinase), Factor XI (plasma thromboplastin antecedent (PTA), antihemophilic factor C), Factor XII (Hageman factor, glass contact, activation factor), Factor XIII (fibrin stabilising factor (FSF), fibrinase, Laki-Lorand factor (LLF), transglutaminase) and the platelet factors 1, 2, 3 & 4 etc. N.B. Factor IV, which, is calcium, is coded C05-A01B. The clot-dissolving proteolytic enzyme plasmin (fibrinolysin) and plasminogen are coded C04-L05C.
1994
Previous code(s): C04-B02C3, C04-B02D2, C04-B04D3, C04-C02B3

C04-H20 # **Adhesion and motor molecules general and other**
e.g. LFA (lymphocyte function associated antigen), ICAM/VCAM (intercellular/vascular cell adhesion molecule).
1994
Previous code(s): C04-B04A6, C04-B04C2

C04-H20A # **. Fibronectin**
1994
Previous code(s): C04-B04A6

C04-H20B # **. Vitronectin**
1994
Previous code(s): C04-B04A6

C04-H20C # **. Muscle proteins general**
2002

C04-H20C1 # **.. Actin**
2002

C04-H20C2 # **.. Myosin**
2002

C04-H20C3 # **.. Tropomyosin**
2002

C04-H21 # **Integrins**
2002

C04-J HORMONES
1994

C04-J01 # **Hormones general and other**
Hormones which are not covered by the C04-J03, C04-J04 and C04-J05 general sub-headings and are not represented in C04-J06 to C04-J18 are coded here. e.g. generic terms such as hypothalamic, adrenergic, neuropeptide, gastrointestinal and insect hormones.
1994
Previous code(s): C04-B02D

C04-J02 **Steroidal hormones (no structure)**
Includes all steroids where no structure is given.
1994
Previous code(s): C04-B02D1

C04-J03 # **Pancreatic hormone general and other**
Including pancreatic polypeptide.
1994
Previous code(s): C04-B02D2

C04-J03A # **. Insulin**
1994
Previous code(s): C04-B02D2

C04-J03B # **. Glucagon**
1994
Previous code(s): C04-B02D2

C04-J04 # **Thyroid and parathyroid general and other**
N.B.thyroxine is coded C10-B2E.
1994
Previous code(s): C04-B02D3

C04-J04A # **. Calcitonin**
1994
Previous code(s): C04-B02D3

C04-J04B # **. Parathyroid hormone**
1994
Previous code(s): C04-B02D3

C04-J05 # **Pituitary gland hormones general and other**
Including prolactin and human growth hormone.
1994
Previous code(s): C04-B02D4

C04-J05A # **. Oxytocin**
1994
Previous code(s): C04-B02D4

C04-J05B # **. ADH (Antidiuretic hormone)**
Also known as vasopressin.
1994
Previous code(s): C04-B02D4

C04-J05D # **. ACTH (Adrenocorticotropic hormone, adrenocorticotropin)**
1994
Previous code(s): C04-B02D4

C04-J05F # **. TSH (Thyroid Stimulating Hormone)**
1994
Previous code(s): C04-B02D4

C04-J05G # **. MSH (Melanocyte stimulating hormone)**
1994
Previous code(s): C04-B02D4

C04-J05H # **. Gonadotropins**
Including FSH (=follicle stimulating hormone), LH (=luteinising hormone), HMG (=human menopausal gonadotropin).
1994
Previous code(s): C04-B02D4

C04-J05J # **. STH (Somatotropic growth hormone)**
1994
Previous code(s): C04-B02D4

C04-J06 # **CRH (Corticotropin-releasing hormone)**
Hormones covered by C04-J06 to C04-J18 are specific and other than steroidal, pancreatic, thyroid, parathyroid, and pituitary gland hormones.
1994
Previous code(s): C04-B02D

C04-J07 # **GN-RH (Gonadotropin-releasing hormone), LH-RH (Luteinising hormone-releasing hormone)**
1994
Previous code(s): C04-B02D

C04-J08 # **TRH (Thyrotropin-releasing hormone)**
1994
Previous code(s): C04-B02D

C04-J09 # **GH-RH, GH-RF, SRF (Growth hormone-releasing hormone/factor, somatotropin-releasing factor)**
1994
Previous code(s): C04-B02D

C04-J10 # **Somatostatin**
1994
Previous code(s): C04-B02D

C04-J11 # **Endorphins/enkephalins**
1994
Previous code(s): C04-B02D

C04-J12 # **Gastrin/Secretin/Motilin**
1994
Previous code(s): C04-B02D

C04-J13 # **Cholecystokinin (CCK-PZ, Pancreozymin)**
1994
Previous code(s): C04-B02D

C04-J14 # **Tachykinins (Substance p = SP)**
1994
Previous code(s): C04-B02D

C04-J15 # **Neurotensin**
1994
Previous code(s): C04-B02D

C04-J16 # **Ecdysone**
1994
Previous code(s): C04-B02D

C04-J17 # **Juvenile hormone**
1994
Previous code(s): C04-B02D

C04-J18 # **Angiotensin**
1994
Previous code(s): C04-B02D

C04-J19 # **Melanin concentrating hormone**
Also known as MCH, a 19 amino acid cyclic neuropeptide that is expressed mainly in the hypothalamus.
2005
Previous code(s): C04-B02D, C04-J01

C04-J20 # **Phytohormones (no structure)**
Includes cytokinins, auxins and other plant hormones where no structure is specified.
2014

C04-J99 # **Prohormone**
e.g. progastrin, procalcitonin. To be coded in conjunction with the active form of the appropriate hormone.
2018

C04-K **RECEPTORS**
1994

C04-K01 # **Receptor general and other**
Including orphan G-protein coupled receptors CD4:(1) is coded here when described simply as a receptor.(2) is coded C04-K01U when described as a viral receptor.
1994
Previous code(s): C04-B04A6

C04-K01A # **. Parasympathetic receptor (cholinergic receptor)**
1994
Previous code(s): C04-B04A6

C04-K01B # **. Sympathetic receptor (adrenergic receptor, alpha and beta)**
1994
Previous code(s): C04-B04A6

C04-K01C # **. Dopamine receptor**
1994
Previous code(s): C04-B04A6

C04-K01D # **. Serotonin (5HT) receptor**
1994
Previous code(s): C04-B04A6

C04-K01F # **. Histamine receptor**
1994
Previous code(s): C04-B04A6

C04-K01G # **. Interleukin receptor**
1994
Previous code(s): C04-B04A6

C04-K01H # **. Prostaglandin/leukotriene/ thromboxane receptor**
1994
Previous code(s): C04-B04A6

C04-K01J # **. Growth factor receptor**
1994
Previous code(s): C04-B04A6

C04-K01K # **. Other modifier of cell function and growth receptor**
1994
Previous code(s): C04-B04A6

C04-K01L # **. Steroid receptor**
e.g. mineralocorticoid, corticosteroid, estrogen receptor.
1994
Previous code(s): C04-B04A6

C04-K01L1 # **.. Androgen receptors**
2005

C04-K01L2 # **.. Estrogen receptors**
2005

C04-K01L3 # **.. Corticosteroid receptors**
2005

C04-K01L4 # **.. Other steroid receptors**
2005

C04-K01M # **. Insulin receptor**
1994
Previous code(s): C04-B04A6

C04-K01N # **. Angiotensin receptor**
1994
Previous code(s): C04-B04A6

C04-K01P # **. Other hormone receptor**
1994
Previous code(s): C04-B04A6

C04-K01Q # **. Lipoprotein (LDL, HDL) receptor**
1994
Previous code(s): C04-B04A6

C04-K01R # **. Blood cell or blood cell antigen receptor**
1994
Previous code(s): C04-B04A6

C04-K01S # **. Cancer cell or cancer cell antigen receptor**
1994
Previous code(s): C04-B04A6

C04-K01T # **. Bacterial or bacterial antigen receptor**
1994
Previous code(s): C04-B04A6

C04-K01U # **. Viral or viral antigen receptor**
1994
Previous code(s): C04-B04A6

C04-K01V # **. Other cell, microbe or antigen receptor**
1994
Previous code(s): C04-B04A6

C04-K01W # **. Antibody receptor**
1994
Previous code(s): C04-B04A6

C04-K01X # **. Non-steroidal nuclear (hormone) receptor**
2002

C04-K01X1 # **.. Peroxisome proliferator activated receptor (orphan receptor)**
Also known as PPAR.
2005

C04-K01X2 # **.. Thyroid receptor**
2005

C04-K01Y # **. G-protein coupled receptor**
2002

C04-K01Y1 # **.. Melanin concentrating hormone receptor**
2005

C04-K01Z # **. Enzyme receptor**
2014

C04-L **ENZYMES**
Enzyme nomenclature is based whenever possible on the classification defined by the Commission on Biochemical Nomenclature.
1994

C04-L01 # **Enzymes, catalytic proteins general and other**
1994
Previous code(s): C04-B02C

C04-L02 # **Coenzymes**
1994
Previous code(s): C04-B02C1

C04-L03 # **Oxidoreductases general and other**
1994
Previous code(s): C04-B02C2

C04-L03A # . **Oxidases**
1994
Previous code(s): C04-B02C2

C04-L03B # . **Peroxidases**
1994
Previous code(s): C04-B02C2

C04-L03C # . **Oxygenases**
Including cytochrome P450.
1994
Previous code(s): C04-B02C2

C04-L03D # . **Dehydrogenases, reductases**
1994
Previous code(s): C04-B02C2

C04-L03E # . **Lipoxygenases**
2002

C04-L04 # **Transferases general and other**
1994
Previous code(s): C04-B02C4

C04-L04A # . **DNA/RNA polymerases**
1994
Previous code(s): C04-B02C4

C04-L04B # . **Reverse transcriptase**
1994
Previous code(s): C04-B02C4

C04-L04C # . **Kinases**
Any of several enzymes that catalyse the transfer of a phosphate group from ATP to a second substrate.
2005
Previous code(s): C04-L04

C04-L05 # **Hydrolases general and other**
1994
Previous code(s): C04-B02C3

C04-L05A # . **Esterases**
Including lipases, nucleases, restriction enzymes, sulfatases, phosphatases.
1994
Previous code(s): C04-B02C3

C04-L05A1 # .. **Phosphodiesterases**
2005

C04-L05A2 # .. **CRISPR system nucleases**
Nucleases specifically for application in CRISPR systems e.g. Cas9 and Cpf1.
2017

C04-L05B # . **Glycosidases**
Including amylases, cellulases, lactases.
1994
Previous code(s): C04-B02C3

C04-L05C # . **Proteases, peptide hydrolases**
Including chymotrypsin, trypsin, papain, fibrinolysin, collagenases, elastases.
1994
Previous code(s): C04-B02C3

C04-L05C1 # .. **Metalloproteases**
2005

C04-L06 # **Lyases**
Including adenyl cyclases, (de)carboxylases, aldolases, dehydratases.
1994
Previous code(s): C04-B02C5

C04-L07 # **Isomerases**
Including racemases, tautomerases, epimerases, mutases.
1994
Previous code(s): C04-B02C6

C04-L08 # **Ligases**
Including synthetases, some carboxylases, aromatase. Excludes synthase.
1994
Previous code(s): C04-B02C7

C04-L09 # **Zymogen and other enzyme precursors**
2002

C04-L10 # **Translocases**
Enzymes in class EC7.
2020

C04-M **ENZYME INHIBITORS**
1994

C04-M01 # **Enzyme inhibitors general and other**
This code is used for enzyme inhibitors with no structure only.
1994
Previous code(s): C04-B04F

C04-N **OTHER PROTEIN/POLYPEPTIDE**
This code is used only when a substance is not better defined in preceding sections, e.g. a protein with adenyl cyclase activity is coded C04-L06 only.
1994

C04-N01 # **Plant protein/polypeptide (No sequence)**
1994
Previous code(s): C04-B04A4,C04-C01

C04-N01A # . **Complete amino acid sequence given**
Codes C04-C01 to C04-C01G are also applied.
1994
Previous code(s): C04-B04A4

C04-N01B # **. Fragments of amino acid sequence given**
1994
Previous code(s): C04-B04A4

C04-N02 # **Animal protein/polypeptide (No sequence)**
1994
Previous code(s): C04-B04A6, C04-C01

C04-N02A # **. Complete amino acid sequence given**
Codes C04-C01 to C04-C01G are also applied.
1994
Previous code(s): C04-B04A6

C04-N02B # **. Fragments of amino acid sequence given**
1994
Previous code(s): C04-B04A6

C04-N03 # **Microorganism protein/polypeptide (No sequence)**
1994
Previous code(s): C04-B04A5,C04-C01

C04-N03A # **. Complete amino acid sequence given**
Codes C04-C01 to C04-C01G are also applied.
1994
Previous code(s): C04-B04A5

C04-N03B # **. Fragments of amino acid sequence given**
1994
Previous code(s): C04-B04A5

C04-N03C # **. Bacterial protein/polypeptide with complete amino acid sequence**
Codes C04-C01 to C04-C01G are also applied.
2006-2010
now coded C04-N03J1

C04-N03D # **. Bacterial protein/polypeptide with fragments of amino acid sequence**
2006-2010
now coded C04-N03J2

C04-N03E # **. Viral protein/polypeptide with complete amino acid sequence**
Codes C04-C01 to C04-C01G are also applied.
2006-2010
now coded C04-N03K1

C04-N03F # **. Viral protein/polypeptide with fragments of amino acid sequence**
2006-2010
now coded C04-N03K2

C04-N03G # **. Fungal protein/polypeptide with complete amino acid sequence**
Codes C04-C01 to C04-C01G are also applied.
2006-2010
now coded C04-N03L1

C04-N03H # **. Fungal protein/polypeptide with fragments of amino acid sequence**
2006-2010
now coded C04-N03L2

C04-N03J # **. Bacterial protein/polypeptide (No sequence)**
2011

C04-N03J1 # **.. Bacterial protein/polypeptide with complete aminoacid sequence**
2011
Previous code(s): C04-N03C

C04-N03J2 # **.. Bacterial protein/polypeptide with fragments of aminoacid sequence**
2011
Previous code(s): C04-N03D

C04-N03K # **. Viral protein/polypeptide (No sequence)**
2011

C04-N03K1 # **.. Viral protein/polypeptide with complete aminoacid sequence**
2011
Previous code(s): C04-N03E

C04-N03K2 # **.. Viral protein/polypeptide with fragments of aminoacid sequence**
2011
Previous code(s): C04-N03F

C04-N03L # **. Fungal protein/polypeptide (No sequence)**
2011

C04-N03L1 # **.. Fungal protein/polypeptide with complete aminoacid sequence**
2011
Previous code(s): C04-N03G

C04-N03L2 # **.. Fungal protein/polypeptide with fragments of aminoacid sequence**
2011
Previous code(s): C04-N03H

C04-N04 # **Protein/polypeptide of undefined origin (No sequence)**
1994
Previous code(s): C04-B04A,C04-C01

C04-N04A # **. Complete amino acid sequence given**
Codes C04-C01 to C04-C01G are also applied.
1994
Previous code(s): C04-B04A

C04-N04B # **. Fragments of amino acid sequence given**
1994
Previous code(s): C04-B04A

C04-N05 # **Lipoprotein**
Also includes lipopeptides.
1994
Previous code(s): C04-B04A,C04-B01B

C04-N06 # **Glycoprotein, peptidoglycan and cytoskeletal proteins**
1994
Previous code(s): C04-B04A

C04-N07 # **Ion channel protein**
2002

C04-N08 **Fusion protein**
2002

C04-N09 # **Molecular chaperones and chaperonins**
E.g. heat shock proteins (HSP).
2005
Previous code(s): C04-N01, C04-N02, C04-N04

C04-N10 **Prions**
Protein pathogen responsible for e.g. Creutzfeldt-Jakob disease and kuru in humans and scrapie in sheep.
2005
Previous code: C04-N02

C04-N11 # **Zinc finger proteins**
Specialized proteins that contain a bound zinc ion or are capable of binding a zinc ion, and are associated with DNA binding proteins.
2005
Previous code(s): C04-N01, C04-N02, C04-N03, C04-N04

C04-N12 # **Transcription factors general**
A protein that binds DNA at a specific promoter or enhancer region where it activates and regulates transcription.
2005
Previous code(s): C04-N01, C04-N02, C04-N03, C04-N04

C04-N13 # **Signalling pathway proteins**
2006

C04-N14 **Peptidomimetics**
2008

C04-N15 **Crystalline form**
Used in conjunction with other specific protein codes for protein crystals.
2010

C04-N16 **Biomarker protein**
Applied with one or more other codes from section C04 which describe the type of biomarker protein e.g. EGFR used as a biomarker for colorectal cancer would be coded with C04-K01J and C04-N16.
2017

C04-P **WHOLE ANIMALS**
E suffix is appended to respective whole animal codes for transgenic animals.
1994

C04-P01 # **Whole animals general and other**
1994
Previous code(s): C04-B04L,C04-B04M

C04-P01A # **. Laboratory experimental animals**
e.g. mice, rats.
1994
Previous code(s): C04-B04L, C04-B04M

C04-P01B # **. Farm animals**
e.g. cows, sheep.
1994
Previous code(s): C04-B04L, C04-B04M

C04-P01C # **. Arthropods**
1994
Previous code(s): C04-B04M

C04-Q **DRUG CONJUGATES GENERAL**
All portions of the conjugate are additionally coded in the relevant sections.
2013

C04-Q01 **Antibody-drug conjugates**
The antibody is additionally coded in section C04-G.
2013

C04-Q02 **Other protein/peptide drug conjugates**
The protein / peptide is also coded in the appropriate section(s) of C04.
2013

C04-Q03 **Synthetic polymer-drug conjugates**
Also includes drug conjugates with polysaccharides. The polymer/polysaccharide is additionally coded in C04.
2013

C04-Q04 **Nucleic acid-drug conjugates**
Applied when both subcodes would be used or when the nucleic acid portion is ambiguously defined. The nucleic acid is additionally coded in section C04-B03 and/or C04-E.
2017

C04-Q04A **. Oligonucleotide-drug conjugates**
The oligonucleotide is additionally coded in section C04-B03.
2025

C04-Q04B **. Polynucleotide-drug conjugates**
The polynucleotide is additionally coded in section C04-E.
2025

C04-Q05 **Proteolysis targeting chimera**
PROTAC (RTM). To be searched alongside the relevant Section C chemical structure codes.
2025

C04-R **BIOSIMILARS**
Includes biobetters. Search in conjunction with relevant C-code(s) for the biosimilar product. Applicable only for explicitly claimed biosimilars.
2016

C05 MISCELLANEOUS

This section covers all inorganic compounds, and also all organic compounds containing elements other than H, C, N, O, S and halogens (other than the exceptions given in the notes).

The order of priorities for this group is generally C01A-B02C > A01A > C01-C08 (e.g. sodium phosphate is only coded as C05-B02A3). The exception to the above is when the anion (of the lower priority) of a metal salt is an important factor in the invention, e.g. effervescent compositions containing sodium bicarbonate are coded C05-C04 and not C05-A01B. Fullerenes and metallocenes are not within the above hierarchy. Sub-group A elements (i.e. metals) when used as salts of organic compounds, are only coded in C05 if the metal is an essential limiting factor of the invention. Otherwise the compound is coded under the parent compound (i.e. acid, alcohol, etc.).

C05-A **METALS AND COMPOUNDS**

C05-A01 **Group 1, 2, 3 general**
May be applied in C as a higher term where both C05-A01A and C05-A01B would be coded
1965

C05-A01A **. Potassium**
This code is not used for organic compounds unless potassium is an essential pharmaceutically active limiting factor of the invention (e.g. K salts used for treating hypokalemia).
1965

C05-A01B **. Group 1a, 2a, 3a excluding K, B, Ra**
This code is not used for organic compounds unless the metal is an essential pharmaceutically active limiting factor of the invention.
1965

C05-A02 **Group 4a, 5a excluding C, Si, N, P, As**

C05-A03 **Transition metals, lanthanides and actinides general**
The generic code C05-A03 is only used for general disclosures which would otherwise require several specific codes. Thus when a specific code is searched the corresponding generic code must also be searched.

C05-A03A . **Manganese (Mn), iron (Fe), copper (Cu), zinc (Zn), mercury (Hg)**
1975

C05-A03A1 .. **Manganese (Mn) compounds**
2005

C05-A03A2 .. **Iron (Fe) compounds**
2005

C05-A03A3 .. **Copper (Cu) compounds**
2005

C05-A03A4 .. **Zinc (Zn) compounds**
2005

C05-A03A5 .. **Mercury (Hg) compounds**
2005

C05-A03B . **Others**
1975

C05-A03B1 .. **Titanium (Ti)**
2008

C05-A03B2 .. **Silver (Ag)**
2008

C05-A03B3 .. **Platinum (Pt)**
2008
Previous code(s): C05-A03B

C05-A04 **Radioactive elements and specific isotopes**

C05-A04A . **Deuterium**
2007

C05-A04B . **Tritium**
2007

C05-A04C . **Carbon isotopes**
Excludes Carbon-12
2007

C05-A04D . **Iodine isotopes**
Excludes Iodine-127
2007

C05-A04E . **Other radioactive isotope**
2007

C05-A04F . **Other non-radioactive isotope**
2007

C05-A05 **Alloys**
May be coded in conjunction with additional codes from C05-A when the constituent metals are known.
2018

C05-A06 **Metal chelates**
Both the metal and the chelating agent(s) are also coded.
2019

C05-B **LESS COMMON NON-METALS AND COMPOUNDS**

C05-B01A . **Boron (B) organic**
1965

C05-B01B . **Silicon (Si) organic**
1965

C05-B01C . **Arsenic (As) organic**
1965

C05-B01D . **Selenium (Se), Tellurium (Te), organic**
1965

C05-B01E . **P-C bond heterocyclic**
1965

C05-B01F . **P-C bond aromatic**
1965

C05-B01G . **P-C bond (cyclo)aliphatic**
1965

C05-B01H . **P-Hal bond organic**
1965

C05-B01J . **P-N bond heterocyclic**
1965

C05-B01K . **P-N bond aromatic**
1965

C05-B01L . **P-N bond (cyclo)aliphatic**
1965

C05-B01M . **P-O(S) bond heterocyclic**
1965

C05-B01N . **P-O(S) bond aromatic**
1965

C05-B01P . **P-O(S) bond (cyclo)aliphatic**
1965

C05-B02A . **P and inorganic P compounds general**
The generic code C05-B02A is only used for general disclosures which would otherwise require several specific codes. Thus when a specific code is searched the corresponding generic code must also be searched.
1965

C05-B02A1 .. **P acids production**
1975

C05-B02A2 .. **Ammonium salts of P acids**
This code is used also for mixtures containing only ammonium salts of P acids.
1975

C05-B02A3 .. **P and inorganic P compounds**
1975

C05-B02A4 .. **Fertiliser mixt. contg. P acid (or salt) and N-source**
For mixtures of ammonium salts of phosphoric acid only see C05-B02A2.
1975

C05-B02A5 .. **Fertiliser mixt. contg. P acid (or salt) and non-N-source**
1975

C05-B02B . **Arsenic (As) inorganic**
1965

C05-B02C **. Silicon (Si), selenium (Se), tellurium (Te), boron (B) inorganic, inert gases**
1965

C05-C **MORE COMMON NON-METALS, COMPOUNDS**

C05-C01 **N (ammonia) inorganic**
After CPI Week 197501 ammonium salts of phosphorus acids or fertiliser mixtures containing a phosphorus acid (or salts) and also ammonia (or salt thereof), have been coded C05-B02A4 respectively.
1965

C05-C02 **N (nitrate) inorganic**
1965

C05-C03 **N (others) inorganic**
1965

C05-C04 **CO2, inorganic (bi)(thio)carbonates**
1965

C05-C05 **Inorganic S acids, S oxides**
1965

C05-C06 **Elemental C or S**
1965

C05-C07 **Inorganic compounds containing halogen**
This code is not used for organic compounds unless a halogen is a member of a heterocyclic ring, or forms a part of an anion, and is an essential agrochemically active limiting factor of the invention.
1965

C05-C08 **Others**
1965

C05-U **FULLERENE TYPE CAGE STRUCTURES**
1994

C05-U **General**
1994

C05-U01 **. Other than carbon only**
1994

C05-U02 **. Carbon only**
1994

C05-U03 **. Carbon only nanotubes**
2005

C05-U04 **. Carbon plus heteroatom nanotubes**
2005

C05-U05 **. Other carbon containing 3-D structures**
2005

C05-U05A **.. Nanotubes, nanorods, nanohorns**
2010

C05-U05B **.. Nanofilms**
2010

C05-U05C **.. Nanostructures other than those covered by C05-U05A and C05-U05B**
2010

C05-U06 **. Inorganic nanostructures**
2005

C05-V **METALLOCENES**
2008

C05-V **Metallocenes**
e.g. ferrocenes, titanocenes, zirconocenes.
2008

Previous code(s): C05+

C05-Z **ORGANOMETALS**
2015

C05-Z **Organometal compounds**
Metals/metalloids present in organic compound, excludes B, Si, As, Se, Te and P. To be searched alongside specific codes for relevant metal(s).
2015

C06 HETEROCYCLIC FUSED RING

This section is used for fused heterocyclic rings containing C and any of O, S and N. If any other elements are present, the structure is coded in C05. The specific rings listed in this section include all reduced derivatives and tautomers, unless specifically excluded.

Specific ring systems present in a disclosed and claimed compound are individually coded, but if there is an essential fused heterocyclic ring and either an optional or a variable fused heterocyclic ring, only the essential ring is coded and neither the variable ring nor C06-H. The exception to this is in a composition with a single new/used/produced compound having one essential fused heterocyclic ring and other components with various fused heterocycles - both the specific and C06-H are then coded.

C06-A	**SOLE HETERO(S) OXYGEN**
C06-A01	**1-Benzo-(furan or pyran)**
C06-A02	**Others with 2 rings** (e.g. phenolphthalein)
C06-A03	**With more than 2 rings**
C06-A03A	. **Taxols, taxels** e.g. paclitaxel, docetaxel. Must contain an oxetane ring fused to the taxane skeleton **2006, 2010**
C06-B	**SOLE HETERO(S) SULPHUR**
C06-B01	**With 2 rings**
C06-B02	**With more than 2 rings**
C06-C	**SOLE HETEROS O AND S**
C06-C	**General**
C06-D	**SOLE HETERO(S) NITROGEN**
C06-D01	**Indole**
C06-D02	**Quinoline**
C06-D03	**Isoindole, isoquinoline**
C06-D04	**Others with 2 rings and one N**
C06-D05	**With 2 rings (5+6 membered) and two N**
C06-D06	**With 2 rings (both 6 membered) and two N**
C06-D07	**Others with 2 rings and two N**
C06-D08	**With 2 rings and 3 N**
C06-D09	**With 2 rings and 4 N**
C06-D10	**With 2 rings and >4 N**
C06-D11	**Acridine**
C06-D12	**Dibenzo[b,f]azepine**
C06-D13	**Others with 3 rings and one N**
C06-D14	**Phenazine**
C06-D15	**Carbolines, phenanthrolines**
C06-D16	**Others with 3 rings and two N**
C06-D17	**With 3 rings and >2N**
C06-D18	**With more than 3 rings**
C06-E	**SOLE HETEROS O AND N**
C06-E01	**Benzoxazole, benzisoxazoles**
C06-E02	**Benzoxazines**
C06-E03	**Others with 2 rings**
C06-E04	**Phenoxazine**
C06-E05	**Others with more than 2 rings**
C06-F	**SOLE HETEROS S AND N**
C06-F01	**Benzothiazole, benzisothiazoles**
C06-F02	**Benzothiazines**
C06-F03	**Others with 2 rings**
C06-F04	**Phenothiazine**
C06-F05	**Others with more than 2 rings**
C06-G	**SOLE HETEROS O AND S AND N**
C06-G	**General**
C06-H	**FUSED RING, GENERAL** This code is used for general disclosures when either unspecified fused heterocyclic ring is present or several specific rings are present. Therefore when a specific code is searched, the corresponding generic code must also be searched.
C06-H	**General**
C06-S	**SPIROFUSED FUSED HETEROCYCLES** to be applied in conjunction with specific ring code(s) from C06.
C06-S	**Spirofused fused heterocycles** **2011**

C07 HETEROCYCLICS, MONONUCLEAR

This section is used for monoheterocyclic rings containing C and any of O, S and N. If any other elements are present, the structure is coded in C05 only. Likewise, when a fused heterocyclic ring is present, the structure is coded in C06 only. The specific rings listed in this section include all reduced derivatives and tautomers, unless specifically excluded.

Specific ring systems present in a disclosed and claimed compound are individually coded, but if there is an essential monoheterocyclic ring and either an optional or a variable monoheterocyclic ring, only the essential ring is coded and neither the variable ring nor C07-H. The exception to this is in a composition with a single new/used/produced compound having one essential monoheterocyclic ring and other components with various monoheterocycles - both the specific and C07-H are then coded.

C07-A	**SOLE HETERO(S) OXYGEN**
C07-A01	**Furan excluding tetrahydrofuran**
C07-A02	**Tetrahydro-(furan or pyran) general**
C07-A02A	**. Tetrahydrofuran** **1994** *Previous code(s): C07-A02*
C07-A02B	**. Tetrahydropyran** **1994** *Previous code(s): C07-A02*
C07-A03	**Others with one O** Including pyran.
C07-A04	**With more than one O**
C07-B	**SOLE HETERO(S) SULPHUR**
C07-B01	**Thiophene**
C07-B02	**Others with one S**
C07-B03	**Others with more than one S**
C07-C	**SOLE HETEROS O AND S**
C07-C	**General**
C07-D	**SOLE HETERO(S) NITROGEN**
C07-D01	**With one N, 3 or 4 membered**
C07-D02	**Pyrrole** Excluding pyrrolidine.
C07-D03	**Pyrrolidine**
C07-D04	**Pyridine general** Excluding piperidine.
C07-D04A	**. (Hydro)pyridinium N(V)** **1986**
C07-D04B	**. Pyridine (optionally substituted) production** **1986**
C07-D04C	**. Pyridine (optionally substituted) use** **1986**
C07-D04D	**. Di- and tetrahydropyridine (optionally substituted)** **1986**
C07-D05	**Piperidine**
C07-D06	**With one N, > 6-membered**
C07-D07	**With > one N, less than 5-membered**
C07-D08	**Pyrazole**
C07-D09	**Imidazole**
C07-D10	**Pyr(id)azine** Excluding piperazine.
C07-D11	**Piperazine**
C07-D12	**Pyrimidine**
C07-D13	**Others with more than one N**
C07-E	**SOLE HETEROS O AND N**
C07-E01	**With one O and one N, < 6-membered**
C07-E02	**Oxazines** Excluding morpholine.
C07-E03	**Morpholine**
C07-E04	**Others**
C07-F	**SOLE HETEROS S AND N**
C07-F01	**With one S and one N, < 6-membered**
C07-F02	**Thiazines**
C07-F03	**Others**
C07-G	**SOLE HETEROS O AND S AND N**
C07-G	**General**
C07-H	**MONONUCLEAR HETEROCYCLICS GENERAL** This code is used for general disclosure when either unspecified monoheterocyclic ring system is present in the molecule, or several rings are present. Therefore the generic code must be searched every time when a specific code is searched.
C07-H	**Heterocyclic ring general**

C07-H01	**Ring linked directly to -C(=O)-, -C(=S)-, -C(=N-)- or -CN** **1975**
C07-H02	**Ring linked directly to heteroatom** **1975**
C07-H03	**Ring linked via aliphatic chain only to heteroatom, -C(=O)-, -C(=S)-, -C(=N)- or CN** **1975**
C07-H04	**Other rings** **1975**
C07-S	**SPIROFUSED MONOCYCLIC HETEROCYCLES** To be applied in conjunction with specific ring code(s) from C07.
C07-S	**Spirofused monocyclic heterocycles** **2011**

C08 AROMATICS, POLYCARBOCYCLIC

This section covers compounds containing more than two carbocyclic rings fused together, at least one of which is 6-membered with 3 conjugated double bonds (or quinone derivatives thereof). Mono- and bicyclo-aromatics are coded in C10.

C08-A	**At least 6 rings fused**
C08-B	**Five rings fused**
C08-C	**4 RINGS FUSED**
C08-C01	**6:6:6:6 carbon atoms per ring**
C08-C02	**Others**
C08-D	**3 RINGS FUSED**
C08-D01	**6:6:7 carbon atoms per ring**
C08-D02	**6:6:6 carbon atoms per ring**
C08-D03	**Others**
C08-H	**FUSED AROMATIC SYSTEM GENERAL** **2002**
C08-S	**SPIROFUSED POLYCYCLIC AROMATIC RINGS** To be applied in conjunction with specific ring code(s) from C08.
C08-S	**Spirofused polycyclic aromatic rings** **2011**

C09 ALICYCLICS, POLYCARBOCYCLIC

This section covers compounds containing more than two carbocyclic rings fused together, other than aromatics (see C08). Mono- and bicyclic compounds are coded in C10.

C09-A	**At least 6 rings fused**
C09-B	**Five rings fused**
C09-C	**4 RINGS FUSED**
C09-C01	**6:6:6:6 carbon atoms per ring**
C09-C02	**Others**
C09-D	**3 RINGS FUSED**
C09-D01	**6:6:6 carbon atoms per ring**
C09-D02	**Others**
C09-H	**FUSED ALICYCLIC SYSTEM GENERAL** **2002**
C09-S	**SPIROFUSED POLYCYCLIC ALICYCLIC RINGS** To be applied in conjunction with specific ring code(s) from C09.
C09-S	**Spirofused polycyclic alicyclic rings** **2011**

C10 AROMATICS AND CYCLOALIPHATICS (MONO AND BICYCLIC ONLY), ALIPHATICS

In this section compounds are coded according to the type of functional group present. Only one code is assigned to a specific compound according to the rule of priorities: A > B > C, and 1 > 2 > 3 etc. Thus C10-A01 is the highest, and C10-J02 the lowest priority code. For acidic or basic salts see the parent compounds (i.e. amines, acids, etc.). For all cyclic derivatives of the groups listed in section C10 see C01 to C07. For groups not listed in section C10, e.g. semicarbazone, the highest priority segment is coded, in this case as C10-A13D.

C10-A	**RARER CHEMICAL GROUPS GENERAL** Oxygen atoms may be replaced by S, where applicable.
C10-A01	**Sulfonium, iodonium, free radicals, carbonium, oxonium, etc.**
C10-A02	**Halogen bonded to Hal, N or O** For halides of acids other than carboxylic (C10-A25) or those containing N-X or O-X (X = halogen) bond (C10-A02) the parent acid is coded. For example a sulfenyl halide is coded C10-A09C, a chloroformate C10-A11B and a carbamoyl halide C10-A12C.
C10-A03	**Nitrogen oxide, nitroso** Includes nitramines
C10-A04	**Peroxide, polysulfide** Also includes hydroperoxides.
C10-A05	**Nitrate, nitrite**
C10-A06	**Quinone** Including all derivatives except those with higher priority.
C10-A07	**Sugars (general)** Only 4 or more carbon monosacccharides with a free keto or aldehyde group together with their oxidised, reduced and substituted derivatives code here. Sugars in which at least one of the aldehyde / keto groups have been converted into an acetal / ketal (i.e. exist in cyclic form) code in C07-A02.

C10-A07A . **Unmodified sugars**
Includes ethers and esters thereof. 7 or more carbon sugars are coded C10-A07E.
2005

C10-A07B . **Sugar alcohols**
Includes ether and ester derivatives. Derivatives in which one or two of the hydroxy groups have been replaced by N additionally code C10-A07D. Derivatives in which one or two of the hydroxy groups have been replaced by atoms other than H or N (including 7 or more carbon sugar alcohols) additionally code C10-A07E. Inositol is coded C10-E04A.
2005

C10-A07C . **Sugar acids**
Includes ether and ester derivatives. Derivatives in which one or two of the hydroxy groups have been replaced by N additionally code C10-A07D. Derivatives in which one or two of the hydroxy groups have been replaced by atoms other than H or N (including 7 or more carbon sugar acids) additionally code C10-A07E. Uronic acids which contain a free aldehyde or keto group (even if represented as a cyclic hemi-acetal in the source material) code here but those in which the hemi-acetal OH has been converted into an ether or ester code in C07-A02. Lactones of sugar alcohols code in the C07-A section.
2005

C10-A07D . **Sugar amines**
Used for 4 or more carbon monosaccharides with a free aldehyde or keto group (even if represented as a cyclic hemi-acetal in the source material) or an oxidised or reduced derivative thereof in which one or two of the O atoms have been replaced by nitrogen. If the sugar contains 7 or more carbons it additionally codes C10-A07E. If the sugar is an oxidised sugar it additionally codes C10-A07C. If the sugar is a reduced sugar it additionally codes C10-A07B.
2005

C10-A07E . **Other sugar derivatives**
Used for 4 or more carbon monosaccharides with a free aldehyde or keto group (even if represented as a cyclic hemi-acetal in the source material) or an oxidised or reduced derivative thereof in which one or two of the O atoms have been replaced by atoms other than H, or N. Additionally all 7 or more carbon non-cyclic monosaccharides code here. If the sugar is an oxidised sugar it additionally codes C10-A07C. If the sugar is a reduced sugar it additionally codes C10-A07B.
2005

C10-A08 **Amide of sulfur acid**

C10-A09A . **(Thio)Sulfuric(ous) acid**
Including all derivatives except those with higher priority.
1965

C10-A09B . **(Thio)Sulfonic acid general**
Including all derivatives except for those with higher priority.
1965

C10-A09C . **Other S acids**
Including all derivatives except those with higher priority.
1965

C10-A10 **Sulfone, sulfoxide**

C10-A11A . **Thiocarbonic acid**
Including all derivatives except those with higher priority.
1965

C10-A11B . **Carbonic acid**
Includes haloformates.
1965

C10-A12A . **Dithiocarbamic acid**
Including all derivatives except those with higher priority.
1965

C10-A12B ' **Monothiocarbamic acid**
Including all derivatives except those with higher priority.
1965

C10-A12C . **Carbamic acid**
Including all derivatives except those with higher priorities.
1965

C10-A13A . **(Iso)thiourea**
1965

C10-A13B . **(Iso)urea general**
Generic codes are only used for general disclosures which would otherwise require several specific codes. When a specific search is made, the corresponding generic code must also be searched.
1965

C10-A13C . **Unsubstituted urea**
1975

C10-A13D . **Other (iso)urea compounds**
1975

C10-A14 **(Iso)cyanate, thiocyanide**

C10-A15 **(Iso)cyanide**

C10-A16 **Azide, azo diazo(nium)**

C10-A17 **Biguanide, guanidine, amidine**

C10-A18 **Hydroxylamine**
Hydroxylamine itself is coded C05-C03.

C10-A19 **Hydrazine**
Hydrazine itself is coded C05-C03.

C10-A20 **Imine**

C10-A21 **Quaternary ammonium (bis or poly)**
When a patent claims amines and their quaternary ammonium salts, only the amines are coded. Two searches must be made in order to obtain all relevant quaternary ammonium compounds.

C10-A22 **Quaternary ammonium (mono)**

C10-A23 **Acetal, ketal**

C10-A24 **Imide**

C10-A25 **Acid anhydride, halide (carboxylic only)**
For halides of acids other than carboxylic (C10-A25) or those containing N-X or O-X (X = halogen) bond (C10-A02) the parent acid is coded. For example a sulfenyl halide is coded C10-A09C, a chloroformate C10-A11B and a carbamoyl halide C10-A12C.

C10-B **AMINES**

C10-B01 **Polyamine general**
1986

C10-B01A . **Polyamines, at least 1 amine aromatic**
1965

C10-B01B . **Polyamines with no amine aromatic**
1965

C10-B02 **Amino-acid, -ester or -amide general**
Oxygen atoms in the acid/ester/amide portion may be replaced by S where applicable.
1986

C10-B02A . **Amino-acid, -ester or -amide (amine aromatic)**
1965

C10-B02B . **Amino-acid, -ester or amide (amine not aromatic) general**
1965

C10-B02C . **Mixtures containing at least 3 naturally occurring amino acids**
1975

C10-B02D . **Sulfur-containing amino acids**
Including amides and esters of the acid group(s).
1975

C10-B02E . **Ring-containing amino acid with free acid group or salt**
1975

C10-B02F . **Ring-containing amino amide**
1975

C10-B02G . **Ring-containing amino ester**
1975

C10-B02H . **Optionally esterified or etherified hydroxy amino acids**
Including amides and esters of the acid group(s).
1975

C10-B02J . **Other amino acids**
Including amides and esters of the acid group(s).
1975

C10-B03 **Amino-phenol,-alcohol or -ether general**
Oxygen atoms may be replaced by S, where applicable.
1986

C10-B03A . **Amino-phenol, -alcohol or -ether (amine aromatic)**
1971

C10-B03B . **Amino-phenol, -alcohol or -ether (amine not aromatic)**
1971

C10-B04 **Amine mono, general**
1986

C10-B04A . **Other aromatic amines**
1971

C10-B04B . **Other non-aromatic amines**
1971

C10-C **CARBOXYLIC ACIDS**

C10-C01 **Thiocarboxylic acid**

C10-C02 **Polycarboxylic acid**

C10-C03 **Carboxylic acid and phenol present**
Or phenolic ester or ether. Oxygen atoms may be replaced by S.

C10-C04 **Other carboxylic acids general**

C10-C04A **. Carboxylic acid and cycloaliphatic system present**
1975

C10-C04B **. Hydroxy, aldehyde or keto carboxylic acid and carbocyclic aromatic ring system present**
Including esters and ethers (of hydroxy) and thio derivatives.
1975

C10-C04C **. Other carboxylic acid and carbocyclic aromatic ring system present**
1975

C10-C04D **. Acyclic hydroxy**
Including acyclic ether (of hydroxy) and thio derivatives.
1975

C10-C04E **. General acyclic monocarboxylic acid**
General acyclic monocarboxylic acid (not substituted by hydroxy, aldehyde, keto or their ethers and/or thio derivatives).
1975

C10-C04E1 **.. Substituted acyclic monocarboxylic acid**
2006

C10-C04E2 **.. Polyunsaturated fatty acid**
2006

C10-C04E3 **.. Monounsaturated fatty acid**
2006

C10-C04E4 **.. Other unsaturated monocarboxylic acid**
2006

C10-C04E5 **.. Saturated fatty acid**
2006

C10-C04E6 **.. Other saturated monocarboxylic acid**
2006

C10-D **ALDEHYDES AND CARBOXYLIC AMIDES**
Oxygen atoms may be replaced by S, where applicable. These generic codes are only used for general disclosures which would otherwise require several specific codes. When a specific search is made, corresponding generic codes must also be searched.

C10-D01 **Aldehydes**

C10-D02 **Carboxylic amide, thio**

C10-D03 **Carboxylic amides**

C10-E **HYDROXY COMPOUNDS**
Oxygen atoms may be replaced by S, where applicable

C10-E01 **Thiophenols**

C10-E02 **Phenols**

C10-E03 **Thioalcohols**

C10-E04 **Alcohols general**
Generic codes are only used for general disclosures which would otherwise require several specific codes. When a specific search is made, the corresponding generic codes must also be searched.

C10-E04A **. Alcohols containing hydroxy attached directly to alicyclic ring**
Including inositol.
1975

C10-E04B **. Alcohols containing carbocyclic ring(s)**
1975

C10-E04C **. Polyalcohols and ethers and esters thereof**
1975

C10-E04D **. Other alcohols**
1975

C10-F **KETONES**

C10-F01 **Thioketones**

C10-F02 **Ketones**

C10-G **CARBOXYLIC ESTERS AND NITRO**
Oxygen atoms may be replaced by S, where applicable.

C10-G01 **Thiocarboxylic esters**

C10-G02 **Carboxylic esters**

C10-G03 **Nitro**

C10-H **ETHERS AND HALOGENS**
Oxygen atoms may be replaced by S, where applicable.

C10-H01 **Ethers**

C10-H02 **Halogen general**
1986

C10-H02A **. F linked to aromatic ring**
1965

C10-H02B **. F not linked to aromatic ring**
1965

C10-H02C **. Br or I linked to aromatic ring**
1965

C10-H02D . **Br or I not linked to aromatic ring**
1965

C10-H02E . **Cl linked to aromatic ring**
1965

C10-H02F . **Cl not linked to aromatic ring**
1965

C10-J **HYDROCARBONS**

C10-J01 **-C≡C- may form part of alicyclic ring**
1965

C10-J02 **Others**
1965

C10-J02A . **Terpenes or terpenoids**
General terpenes or terpenoids of purely hydrocarbon content.
2013

C11 PROCESSES, APPARATUS

C11 codes are only used when the inventive feature of the patent cannot be completely described in terms of chemical descriptors in C01 to C10. Test **methods** must be claimed for C11 codes to be applied, i.e. if a compound can be used as a reagent but the test is not claimed, only C12-K04+ codes are applied.

C11-A **FERMENTATION GENERAL**
Includes fermentation process where microorganisms are not specified
2012

C11-A01 **Using microorganisms**
1994

C11-A01A . **Using bacteria**
2006

C11-A01B . **Using viruses**
2006

C11-A01C . **Using fungi**
2006

C11-A02 **Using enzymes**
1994

C11-A02A . **Using oxidoreductases general**
2006

C11-A02A1 .. **Using oxidases**
2006

C11-A02A2 .. **Using peroxidases**
2006

C11-A02A3 .. **Using oxygenases**
2006

C11-A02A4 .. **Using dehydrogenases, reductases**
2006

C11-A02A5 .. **Using lipoxygenases**
2006

C11-A02B . **Using transferases general**
2006

C11-A02B1 .. **Using DNA/RNA polymerases**
2006

C11-A02B2 .. **Using reverse transcriptases**
2006

C11-A02B3 .. **Using kinases**
2006

C11-A02C . **Using hydrolases general**
2006

C11-A02C1 .. **Using esterases**
2006

C11-A02C2 .. **Using glycosidases**
2006

C11-A02C3 .. **Using proteases/peptide hydrolases**
2006

C11-A02D . **Using lyases**
2006

C11-A02E . **Using isomerases**
2006

C11-A02F . **Using ligases**
2006

C11-A03 **Using algae**
2010

C11-A04 **Fermentation apparatus**
Apparatus or device for culturing microorganisms e.g. culturing device of alimentary canal nematodes.
2012

C11-A04A . **Cell/tissue culture apparatus**
Method and apparatus for culturing and processing of biological cells excluding tissue engineering (which codes 11-C04G). E.g. animal cells and other microbial cells.
2014

C11-B **EXTRACTION, SEPARATION, RECOVERY, PURIFICATION, CRYSTALLISATION**
If part of a diagnostic process see C11-C08D.

C11-B01 **Separation of stereoisomers by a biological method**
2006

C11-B02 **Separation of stereoisomers by other method**
2006

C11-B03 **Other separations**
also for separation of E,Z and cis/trans isomers.
2006

C11-B03A . **Method or device for separation of biological molecules**
Includes methods or devices for extraction of biological substances such as proteins and nucleic acids.
2012

C11-B03B . **Device/methods for concentrating of molecules**
Includes techniques involving concentrating procedure, only for use when the Novelty of the invention.
2013

C11-B03C . **Method or device for extraction of active substances from plant**
Patents dealing with extraction of active agents from plants.
2016

C11-B03D . **Method or device for extraction of active substance from animals, arthropods**
Extraction of active substance from animals, arthropods, etc.
2021

C11-B04 **Method or device for removal processes**
A means of destroying or collecting for subsequent safe disposal of harmful / noxious substances. Substance removed and removing agent are additionally coded, even if they only appear in an example.
2006

C11-B05 **Method or device for preservation and/or storage**
Includes devices as well as methods for preservation and storage relating to preservation. General storage containers are coded in C11-C06.
2009

C11-B06 **Method or device for cleaning and/or sterilization**
Method device for cleaning and/or sterilization, such as for medical equipment.
2010

C11-C **GENERAL PROCESS, APPARATUS**

C11-C01 **General chemical processes**
1971

C11-C01A . **Combinatorial chemistry**
2002

C11-C01A1 .. **Library synthesis**
Used when the patent is describing a technique for producing, rather than using a combinatorial library.
2005

C11-C01A2 .. **Liquid-phase synthesis**
Process in which the chemical building blocks are present in solution.
2005

C11-C01A3 .. **Solid-phase synthesis**
Process in which the chemical building blocks are bound to a polymer.
2005

C11-C01A4 .. **Parallel synthesis**
Process in which each separate starting material is present in a different well in a microarray and the reagent is added simultaneously to all of the wells with the results that each product is present in a different well.
2005

C11-C01A5 .. **High-volume synthesis**
Process in which very large numbers of compounds are produced from a large variety of starting materials.
2005

C11-C01B . **Apparatus for combinatorial chemistry**
2002

C11-C01C . **Other processes**
2002

C11-C01C1 .. **Stereo-specific reactions**
2006

C11-C01C2 .. **Stereo-selective reactions**
2006

C11-C01C3 .. **Racemisation**
2012

C11-C01D . **Stereochemistry**
Includes geometrical isomers.
2006

C11-C01E . **Amplification apparatus/process for production**
From 2011, the scope of this code has been extended to cover amplification apparatus for production in addition to processes for the same.
2007
Previous code(s): C11-A02B1

C11-C02 **Syringes**
Also includes filling/loading of syringes.
1971

C11-C02A . **Hypodermic syringes**
Includes multi-use as well as single-use and moulded disposable syringes.
2005

C11-C02B . **Needles**
Should cover all needles, not just those for syringes. Not for microneedles – these are coded under C12-M02F instead.
2005

C11-C02C . **Syringe components**
2006

C11-C02D . **Syringe/Injector disposal apparatus**
Covers disposal of all injectors, not just syringes. Also includes syringe needle removing devices and sharps container.
2006

C11-C03 **Dispensers**
Includes fertilizer dispensers.
1971

C11-C04 **Machine/device/method for use in/on living body, general**
From 2010, the scope of this code has been extended to cover methods used for therapeutic purposes on animal or human body in addition to machines and devices for the same. Includes both method and devices used for therapeutic purposes on animal or human body. This code can be applied to condoms, external splints, infra-red heat massagers etc, however such items should either contain, be coated with or be used in conjunction with drugs in order for them to be coded in B and/or C.
1971

C11-C04A . **Implant**
1977

C11-C04A1 .. **Stent**
2006

C11-C04B . **Catheter**
Includes cannula.
1977

C11-C04C . **Injection gun, general**
2005

C11-C04D . **Applicator**
Includes spraying apparatus for agrochemicals.
2005

C11-C04E . **Needle-free injector**
A syringe type device that uses applied pressure to inject the drug through the skin, and particularly into the gums during dental procedures.
2005

C11-C04F . **Artificial organs**
Including heart-lung machines, kidney dialysis equipment, pacemakers and artificial livers and skin. Includes production of these organs. Not to be confused with prostheses (coded C12-M17) or implants (coded C11-C04A).
2005

C11-C04G **. Tissue engineering technologies**
Includes wound care technologies (e.g. bone cement), stem cell therapeutic applications, and tissue and organ production (e.g. by inkjet printers and tissue scaffolds).
2007

C11-C04H **. Adaptors, fixing devices, seals** used for e.g. attaching tubes to syringes, attaching catheter tubes to supports.
2009

C11-C04J **. Cements, putties**
Includes bone cement etc.
2010

C11-C04K **. Bioelectronics and neurostimulation**
Includes electroceuticals, may also be searched with C14-S27.
2015

C11-C04Z **. Non-pharmaceutical alternative therapies**
Includes therapies such as music therapy, laughter therapy, heat therapy, acupuncture and reiki. Does not include electrical or electromagnetic therapies which are coded in C14-S27 with additionally C11-C04 if the apparatus is also claimed.
2012

C11-C05 **Process/ apparatus for producing pharmaceutical, veterinary or agricultural composition**
Includes tabletting machines. Also covers any process for producing drugs or their intermediate products e.g. drug mixer, device for drying a drug, device for crushing a drug.
1971

C11-C06 **Containers, packing, preserving apparatus, storage tanks, transporting apparatus general**
1975

C11-C06A **. Closures, caps**
1977

C11-C06B **. Formulation counting/measuring devices**
e.g. tablet counting machines, cylinders for measuring solutions, weighing devices.
2009

C11-C06C **. Peripheral devices for therapeutic regimens**
Includes stands for e.g. infusion devices, tamper alarms.
2010

C11-C06D **. Labels and labelling devices**
2011

C11-C06E **. Temperature regulation apparatus**
2012

C11-C06Z **. Safety and tamper-proof devices/methods**
Applied with one or more other codes from C11-C02, C11-C03, C11-C04 and/or C11-C06. Includes methods and devices to improve patient safety e.g. alarms for incorrect operation of dispensers. Safety caps, previously coded only in C11-C06A, also now code here.
2017

C11-C07 **Antibody-antigen reaction, precipitation tests; colorimetric, fluorescence, radioactive tracer tests, general**
C11-C07+ and C11-C08+ codes are applied when diagnosis/testing process forms a novel part of an invention.
1975

C11-C07A **. Antigen-antibody reaction general**
Excluding C11-A.
1977

C11-C07A1 **.. Production of antigen for test**
1986

C11-C07A2 **.. Antigen or antibody bound to colour tracer**
1986

C11-C07A3 **.. Antigen or antibody bound to radioactive tracer**
1986

C11-C07A4 **.. Antigen or antibody bound to enzyme tracer**
1986

C11-C07A5 **.. Antigen or antibody bound to fluorescent or chemiluminescent tracer**
1986

C11-C07A6 **.. Antigen or antibody bound to other type of carrier**
e.g. erythrocytes, glass, polymer.
1986

C11-C07A7 **.. Apparatus for antigen-antibody reaction, where the antigen or antibody type or carrier are irrelevant to the invention**
1986

C11-C07B **. Colorimetric tests**
Including fluorescence (excluding B11-C07A).
1977

C11-C07B1 **.. Colorimetric (detection of colour change in a reagent)**
1986

C11-C07B2 **.. Spectrophotometric**
1986

C11-C07B3 **.. Fluorescence**
1986

C11-C07B4 **.. Chemiluminescence**
1986

C11-C07B5 **.. Radioactive tracer other than C11-C07A3**
1986

C11-C07B6 **.. Reflectance, light scattering etc.**
2005

C11-C07B7 **.. Apparatus for colorimetric analysis where the apparatus is the novelty of the invention**
2009

C11-C08 **Other methods/apparatus for testing/detection**
Including new drug screening systems.
1975

C11-C08A **. NMR, mass spectroscopy**
Excluding NMR, mass spectroscopy for gene/protein analysis which is coded under C11-C08G2.
1986

C11-C08B **. Potentiometry, polarography**
1986

C11-C08C **. Sampling device and sampling method for testing**
From 2010, the scope of this code has been extended to cover methods of sampling in addition to devices for the same. Includes devices and method of sampling, wherein the method of collecting samples is for test and detection purposes.
1986

C11-C08C1 **.. Microfluidic devices**
2007

C11-C08C2 **.. Manipulation of samples**
Includes methods or devices for treating biopsy or smear samples to make them easier to view.
2014

C11-C08D **. Separation methods of testing and diagnosis general**
Other than C11-B.
1986

C11-C08D1 **.. Electrophoresis**
1986

C11-C08D2 **.. Chromatography, ion exchange**
Including High Performance Liquid Chromatography (HPLC).
1986

C11-C08D3 **.. Filtration, centrifugation, sedimentation, dialysis**
1986

C11-C08E **. Biological procedures for testing general**
Other than C11-A and C11-C07A.
1986

C11-C08E1 **.. Fermentation of micro-organisms, cell or tissue culture**
e.g. testing antibiotics by cultivation of microorganisms.
1986

C11-C08E2 **.. Noting physiological responses in animals or plants/modelling diseases**
e.g. increased activity, change of habit. This code is applied only when the test is the main inventive feature.
1986

C11-C08E3 **.. Enzyme processes other than polarography or enzyme labelling**
Excluding C11-C07A, but including the use of restriction enzymes (endonucleases) and the polymerase chain reaction (PCR). For more specifically described PCR methodologies, up to three additional codes from subsection C11-C08N may be appended (from update 202201).
1986

C11-C08E4 **.. DNA sequencing methods**
Other than those involving enzymes.
1994-2018
Previous code(s): C11-C08, C11-C08E3
Now coded as: C11-C08F7A

C11-C08E5 **.. Nucleic acid hybridisation test methods, use of nucleic acid probes**
1994-2018
Previous code(s): C11-C08, C11-C08E3
Now coded as: C11-C08F8

C11-C08E6 **.. Microarrays and biochips**
2002

C11-C08E7 **.. Agonist/antagonist identification**
2005

C11-C08E8 **.. Biosensor**
To be searched alongside the physicochemical and/or biological parts where present.
2016

C11-C08E9 **.. Protein sequencing method**
Code retired 2018. Now coded C11-C08F7B. All document records from 2018 containing this code will be changed to reflect the updated hierarchy and C11-C08E9 will no longer be searchable.
2018-2018

C11-C08F **. Protein/Gene analysis general**
2002

C11-C08F1 **.. Computational genomics**
2002-2018
Now coded as: C11-C11C1

C11-C08F2 **.. Experimental genomics**
2002

C11-C08F3 **.. Computational proteomics**
2002-2018
Now coded as: C11-C11C2

C11-C08F4 **.. Experimental proteomics**
2002

C11-C08F5 **.. Functional genomics**
2009

C11-C08F6 **.. Functional proteomics**
2009

C11-C08F7 **.. Sequencing methods general**
2019

C11-C08F7A **... DNA/RNA sequencing methods**
2019

C11-C08F7B **... Protein sequencing methods**
Replaces the deleted code C11-C08E9. All affected document records from 2018 will be changed to reflect the updated hierarchy and C11-C08E9 will no longer be searchable.
2019

C11-C08F8 **.. Nucleic acid hybridization test methods, use of nucleic acid probes**
2019
Previous code(s): C11-C08, C11-C08E5

C11-C08G **. Structural conformation analyzing method for biomolecules**
Prior to 2011, this code covered structural gene/protein analysis only. From 2011, the scope of this code has been extended to cover structural analysis of all biomolecules. Also includes structural analysis of polysaccharide, nucleic acid, lipid, glycoprotein, glycolipid and RNA molecule.
2002

C11-C08G1 **.. X-ray crystallography**
2002

C11-C08G2 **.. NMR spectroscopy**
2002

C11-C08G3 **.. Electron microscopy**
2002

C11-C08H **. Drug design by computer modelling**
2002

C11-C08J **. Microscopy/ optical processes & apparatus**
2005

C11-C08K **. Other analytical apparatus where the apparatus is the novelty of the invention**
Novel apparatus for colorimetric analysis codes as C11-C07B7.
2009

C11-C08L **. Acoustics**
Includes ultrasound, infrasound and vibration.
2016

C11-C08M **. Calorimetry**
2020

C11-C08N **. Biological testing methodologies**
This code is a section heading only and is not applied to patents. See the relevant C11-C08N sub-codes instead.
2022

C11-C08N1 **.. Thermocycling amplification methods**
For three or more specific sub-codes or for general references to thermocycling methods, only the parent code C11-C08N1 is applied. General references to PCR are searched under C11-C08E3.
2022

C11-C08N1A **... Multiplex PCR**
2022

C11-C08N1B **... Nested PCR**
2022

C11-C08N1C **... Colony PCR**
2022

C11-C08N1D **... Random amplification polymorphism DNA PCR (RAPD-PCR)**
2022

C11-C08N1E **... Simple sequence repeat-anchored PCR (SSR-PCR)**
2022

C11-C08N1F **... Amplified fragment length polymorphism PCR (AFLP-PCR)**
2022

C11-C08N1G **... Amplification of refractory mutation system PCR (ARMS-PCR)**
2022

C11-C08N1H **... Restriction fragment length polymorphism (RFLP)**
2022

C11-C08N1J **... Ligase chain reaction (LCR)**
2022

C11-C08N1K **... Kompetitive allele specific PCR (KASP)**
Includes allele-specific polymerase chain reaction (ASP-PCR). Code additionally fluorescence (C11-C07B3) for PCR.
2024

C11-C08N2 **.. Isothermal amplification methods, general and other**
For three or more specific sub-codes or general references to isothermal methods, only the parent code C11-C08N2 is applied.
2022

C11-C08N2A **... Loop mediated isothermal amplification (LAMP)**
Also includes RT-LAMP.
2022

C11-C08N2B **... Self-sustained sequence replication (3SR)**
2022

C11-C08N2C **... Strand displacement amplification (SDA)**
2022

C11-C08N2D **... Nucleic acid sequence based amplification (NASBA)**
2022

C11-C08N2E **... Rolling circle amplification (RCA)**
2022

C11-C08N2F **... Multiple displacement amplification (MDA)**
Includes Whole Genome Amplification (WGA), Multiple Annealing and Looping Based Amplification Cycles (MALBAC).
2022

C11-C08N2G **... Helicase dependent amplification (HAD)**
2022

C11-C08N2H **... Ramification amplification method (RAM)**
2022

C11-C08N2J **... Recombinase polymerase amplification (RPA)**
2022

C11-C08N3 **.. Real-time analysis**
To be searched alongside the relevant testing and diagnostic codes when this term is referenced in the source document.
2022

C11-C08N4 **.. Rapid analysis**
To be searched alongside the relevant testing and diagnostic codes when this term is referenced in the source document.
2022

C11-C09 **Other processes, appts.**
Processes and apparatus not covered elsewhere in section 11.
1975

C11-C09A **. Processes**
2006

C11-C09B **. Apparatus**
2006

C11-C10 **Screening general**
2002

C11-C10A **. High throughput screening**
2002

C11-C10B . **High content screening**
Whole cell analysis used in drug screening. Differs from high-throughput screens that are usually homogenous in-vitro assays. Includes the analysis of multiple independent or interacting targets in intact cells using e.g. advanced optical imaging systems, fluorescent-based reagents and advanced informatics tools. Also includes predictive toxicity and ADME (absorption, distribution, metabolism and excretion) screening.
2005

C11-C10C . **Protein/gene libraries**
Collections of protein or nucleic acid fragments and clones used as a tool in biochemical processes.
2005

C11-C10D . **Phage display libraries**
2005

C11-C11 **General computing methods & apparatus**
Includes media and methods for storing, searching and retrieving data and drug databases. Also for computerised pharmacological models.
2005

C11-C11A . **Patient compliance methods & systems**
Methods concerning patient compliance, e.g. medication reminders.
2005

C11-C11B . **Computerised teaching models**
Includes computer simulations used to show drug effects, such as in university courses.
2014

C11-C11C . **Computational protein/nucleic acid analysis**
2019

C11-C11C1 .. **Computational genomics**
2019
Previous code(s): C11-C08F1

C11-C11C2 .. **Computational proteomics**
2019
Previous code(s): C11-C08F3

C11-C12 **Nanotechnology (general)**
Includes nanoswitches made of DNA, nanorobots and DNA origami.
2005

C11-C13 **Particle engineering**
Any process concerned with the design of the physical form of the particles in the dosage (as opposed to the chemical constitution of them). This optimises drug delivery properties of the dosage form.
2005

C11-C14 **Security systems (e.g. biometric data, retinal scanning, authentication of drugs, DNA labelling for security purposes, etc.)**
2008

C11-C15 **Biological tools/models/teaching aids**
Physical entities only.
2011

C11-C15A . **Computerised teaching models**
Includes computer simulations used to show drug effects, such as in university courses.
2014

C11-C16 **Apparatus specifically for pediatrics or geriatrics**
Includes apparatus for neonates and adolescents.
2017

C11-C17 **Bioprinting**
Includes pre- and post-bioprinting procedures. Additionally coded with C11-C04G for tissue engineering via bioprinting, or C11-C04F for printable organs.
2017

C12 DIAGNOSTICS AND FORMULATION TYPES (Therapeutic, Pesticidal, Herbicidal) (pre-1994)

C12-A **ANTIMICROBIAL TYPE**

C12-A01 **Antibacterial**
Antibiotics are only C02. Immunostimulant with C12-A06 (pre-1994).
1965-1993
Now coded as: C14-A1+

C12-A02 **Antifungal, antialgal, antilichen general**
1965-1993
Now coded as: C14-A04+, C14-B08

C12-A02A . **Antialgal**
1986-1993

C12-A02B . **Antilichen**
1986-1993
Now coded as: C14-B08

C12-A02C . **Antifungal**
1986-1993
Now coded as: C14-A04+

C12-A03 **Antileprotic**
1965-1993
Now coded as: C14-A01B1

C12-A04 **Antitubercular**
1965-1993
Now coded as: C14-A01B1

C12-A05 **Antivenereal**
1965-1993
Now coded as: C14-N07C, C14-A01A, C14-A01A5

C12-A06 **Antiviral**
Vaccines are only C02-V. Immunostimulant with B12-A01 (pre-1994).
1965-1993
Now coded as: C14-A02+

C12-A07 **Skin and wound treatment**
1965-1993
Now coded as: C14-N17+

C12-A08 **Antifouling**
Prior to 198601 search C12-A02, C12-N01, C12-N04 and C12-N05.
1986-1993
Now coded as: C12-B15

C12-B **ANTIPARASITIC TYPE**

C12-B01 **Amoebicide**
1965-1993
Now coded as: C14-A03A

C12-B02 **Anthelmintic**
1965-1993
Now coded as: C14-B03

C12-B03 **Antimalarial**
1965-1993
Now coded as: C14-A03B

C12-B04 **Antiparasitic (general), acaricide**
1965-1993
Now coded as: C14-B02

C12-B05 **Coccidiostat**
1965-1993
Now coded as: C14-A03C

C12-B06 **Schistosomicide**
1965-1993
Now coded as: C14-B03A

C12-B07 **Trypanocide**
1965-1993
Now coded as: C14-A03E

C12-C **CNS-ACTIVE TYPE (I)**

C12-C01 **Anesthetic (general)**
1965-1993
Now coded as: C14-C08

C12-C02 **Anesthetic (local)**
1965-1993
Now coded as: C14-C09

C12-C03 **Analeptic**
1965-1993
Now coded as: C14-J01A2

C12-C04 **Antiparkinsonian drug**
1965-1993
Now coded as: C14-J01A3

C12-C05 **Central depressant**
1965-1993
Now coded as: C14-J01B

C12-C06 **Central stimulant**
1965-1993
Now coded as: C14-J01A, C14-J01A1

C12-C07 **Hypnotic**
1965-1993
Now coded as: C14-J01B1

C12-C08 **Sedative**
1965-1993
Now coded as: C14-J01B2

C12-C09 **Synergist**
1965-1993
Now coded as: C14-S09

C12-C10 **Tranquiliser**
1965-1993
Now coded as: C14-J01B4, C14-J01A4, C14-F02D1, C14-J01, C14-J01B3, C14-N16, C14-S07

C12-D **CNS-ACTIVE TYPE (II)**

C12-D01 **Analgesic**
1965-1993
Now coded as: C14-C01

C12-D02 **Antiallergic general**
1965-1993
Now coded as: C14-G02A

C12-D02A **. Autoimmune disease treatment**
See also C12-D03, C12-D07, C12-D09.
1986-1993
Now coded as: C14-G02D

C12-D02B **. Immune suppressant**
Immunomodulatory is also coded C12-A01 and C12-A06.
1986-1993
Now coded as: C14-G02, C14-G03, C14-G02C

C12-D02C **. Complement inhibitor**
1986-1993
Now coded as: C14-G02D

C12-D02D **. Anti slow-releasing-substance of anaphylaxis (SRS-A)**
1986-1993
Now coded as: C14-G02B

C12-D03 **Antiarthritic**
1965-1993
Now coded as: C14-C09+

C12-D04 **Anticonvulsant**
1965-1993
Now coded as: C14-J07

C12-D05 **Antiemetic**
1965-1993
Now coded as: C14-E05

C12-D06 **Antihistamine general**
For gastric secretion inhibitor, see also C12-J02.
1965-1993
Now coded as: C14-L10

C12-D06A **. H2 secretion inhibitor**
1986-1993
Now coded as: C14-L12

C12-D06B **. H1 inhibitor**
1986-1993
Now coded as: C14-L11

C12-D07 **Antiinflammatory**
1965-1993
Now coded as: C14-C02, C14-C03, C14-C04

C12-D08 **Antipyretic**
1965-1993
Now coded as: C14-C05, C14-C06

C12-D09 **Antirheumatic**
1965-1993
Now coded as: C14-C07

C12-D10 **Convulsant**
1965-1993
Now coded as: C14-J06

C12-E **AUTONOMIC N.S. ACTIVE TYPE**

C12-E01 **Autonomic N.S. active general**
1965-1993
Now coded as: C14-F02, C14-J02

C12-E02 **Muscle relaxant, inotropic**
See also C12-F01.
1965-1993
Now coded as: C14-J05, C14-J05A, C14-J05C, C14-J05D

C12-E03 **Mydriatic/myopic**
1965-1993
Now coded as: C14-J05B

C12-E04 **Parasympathetic blocker**
1965-1993
Now coded as: C14-J02B+, C14-J05D

C12-E05 **Parasympathetic stimulant, acetyl choline potentiator**
1965-1993
Now coded as: C14-J02A+

C12-E06 **Sympathetic blocker general**
1965-1993
Now coded as: C14-J02D, C14-J02D3

C12-E06A **. Alpha-adrenergic blocker**
1986-1993
Now coded as: C14-J02D1

C12-E06B **. Beta-adrenergic blocker**
1986-1993
Now coded as: C14-J02D2

C12-E07 **Sympathetic stimulant, adrenergic stimulant, adrenaline potentiator**
1965-1993
Now coded as: C14-J02C+

C12-E08 **Ulcers (peptic and duodenal)**
1965-1993
Now coded as: C14-E08

C12-E09 **Uterus active**
1965-1993
Now coded as: C14-N14

C12-F **CARDIOACTIVE TYPE**
Now coded as: C14-F

C12-F01 **Cardioactive general**
1965-1993
Now coded as: C14-F01

C12-F01A **. Arryhthmia treatment**
1986-1993
Now coded as: C14-F01A

C12-F01B **. Cardiac stimulant**
Including treatment of myocardial infarct, myocardial contraction intensifying, cardiac arrest treatment, cardiotonic, cardiac insufficiency treatment.
1986-1993
Now coded as: C14-F01B

C12-F01C . **Cardiovascular, inotropic**
Prior to 8602 coded as C12-E02.
1986-1993
Now coded as: C14-F01C

C12-F02 **Coronary dilator**
1965-1993
Now coded as: C14-F01D,C14-F01E

C12-F03 **Ganglion blocker**
1965-1993
Now coded as: C14-F01F

C12-F04 **Hypertensive**
1965-1993
Now coded as: C14-F02A

C12-F05 **Hypotensive general**
1965-1993
Now coded as: C14-F02B

C12-F05A . **Angiotensin converting enzyme inhibitor, renin inhibitor**
1986-1993
Now coded as: C14-F02B1

C12-F05B . **Calcium entry blockers**
C12-G01 may also be searched.
1986-1993
Now coded as: C14-F02B2

C12-F06 **Vasoconstrictor**
1965-1993
Now coded as: C14-F02C

C12-F07 **Vasodilator**
1965-1993
Now coded as: C14-F02D+

C12-G **METABOLISM ACTIVE TYPE**

C12-G01 **Antimetabolite general**
1965-1993
Now coded as: C14-J04, C14-L06, C14-L07, C14-L08

C12-G01A . **Antihormone, antiandrogenic, antiestrogenic, antiprogestational, adrenal cortex inhibitor**
1986-1993
Now coded as: C14-D02+

C12-G01B . **Enzyme inhibitor**
1986-1993
Now coded as: C14-D03,C14-D04

C12-G01B1 .. **Antioxidoreductase**
1986-1993
Now coded as: C14-D05+

C12-G01B2 .. **Antitransferase**
1986-1993
Now coded as: C14-D06+

C12-G01B3 .. **Antihydrolase**
1986-1993
Now coded as: C14-D07+

C12-G01B4 .. **Antilyase**
1986-1993
Now coded as: C14-D08

C12-G01B5 .. **Antiisomerase**
1986-1993
Now coded as: C14-D09

C12-G01B6 .. **Antiligase (antisynthetase)**
1986-1993
Now coded as: C14-D10

C12-G02 **Choleretic and liver**
1965-1993
Now coded as: C14-N12

C12-G03 **Diuretic and kidney**
For urinary tract infections see C12-A01.
1965-1993
Now coded as: C14-F02E, C14-N10

C12-G04 **Hormone adrenocortical**
Including Addison's disease treatment (general).
1965-1993
Now coded as: C14-D01, C14-D01D, C14-D01E, C14-J03

C12-G04A . **Anti-aging, anti-senility, anti-Alzheimer's disease**
Including non-hormonal treatment.
1986-1993
Now coded as: C14-J01A4

C12-G04B . **Androgenic**
1986-1993
Now coded as: C14-D01A

C12-G04C . **Estrogenic**
1986-1993
Now coded as: C14-D01B

C12-G04D . **Progestational**
1986-1993
Now coded as: C14-D01C

C12-G05 **Leukaemia treatment**
1965-1993
Now coded as: C14-H01A

C12-G06 **Thyroid agent**
1965-1993
Now coded as: C14-N11

C12-G07 **Tumour inhibitor**
1965-1993
Now coded as: C14-H01, C14-H01B

C12-H **BLOOD ACTIVE TYPE**

C12-H01 **Antianemic**
1965-1993
Now coded as: C14-F03

C12-H02 **Anticoagulant**
1965-1993
Now coded as: C14-F04

C12-H03 **Antilipemic**
1965-1993
Now coded as: C14-F06, C14-F07

C12-H04 **Coagulant**
1965-1993
Now coded as: C14-F08

C12-H05 **Hypoglycemic**
1965-1993
Now coded as: C14-F09, C14-F10

C12-H06 **Plasma and blood substitutes**
1965-1993
Now coded as: C14-F11

C12-J **GASTROINTESTINAL ACTIVE TYPE**

C12-J01 **Anabolic agent, nutritional, achlorhydria treatment (humans)**
1965-1993
Now coded as: C14-E10+, C14-E11

C12-J02 **Anorectic, antisecretory**
1965-1993
Now coded as: C14-E07, C14-E12

C12-J03 **Antacid**
1965-1993
Now coded as: C14-E01, C14-E03

C12-J04 **Antidiarrheal, antihemorrhoidal**
1965-1993
Now coded as: C14-E02, C14-E04

C12-J05 **Antidote general**
1965-1993
Now coded as: C14-M01, C14-M01C

C12-J05A **. Alcoholism treatment**
1986-1993
Now coded as: C14-M01A

C12-J05B **. Antismoking**
1986-1993
Now coded as: C14-M01B

C12-J05C **. Anti-heavy metal poisoning**
1986-1993
Now coded as: C14-M01D

C12-J05D **. Pesticide or herbicide antidote**
1986-1993
Now coded as: C14-M01E

C12-J05E **. Protecting plants from poisons**
1986-1993
Now coded as: C14-M01F

C12-J06 **Emetic**
1965-1993
Now coded as: C14-E06

C12-J07 **Laxative**
1965-1993
Now coded as: C14-E09

C12-J08 **Bone disorder treatment, osteoporosis**
Excluding arthritis treatment (C12-D03) and bone marrow cell disorders (C12-G05). For osteoporosis prior to 198601 search C12-J01.
1986-1993
Now coded as: C14-N01

C12-K **DIAGNOSTICS RESPIRATORY ACTIVE TYPE (PRE-1994)**

C12-K01 **Antitussive**
1965-1993
Now coded as: C14-K01B

C12-K02 **Bronchodilator**
1965-1993
Now coded as: C14-K01D

C12-K03 **Contraceptive**
1965-1993
Now coded as: C14-P01+

C12-K04 **Diagnosis and testing general**
This section is used for coding substances which are stated to be detecting agents: e.g. a new antibody used for detecting cancer is coded under C04-G and C12-K04G2A only. When the procedure for detecting is descibed as novel, then the corresponding C11-C07 and C11-C08 codes are also applied.
As of 201601, subsection C12-K04A has been retired and the codes reorganised and expanded in new subsection C12-K04G.

C12-K04A **. Diagnosis of diseases or conditions in animals general**
Including detection of glucose in blood and ethanol in breath.
1986-2015
Now coded as C12-K04G

C12-K04A1 **.. Diagnosis of tumours, cancer**
1986-2015
Now coded as C12-K04G2A

C12-K04A2 **.. Diagnosis of heart and circulatory disorders**
1986-2015
Now coded as C12-K04G2B

C12-K04A3 **.. Diagnosis of genetic disorders**
1986-2015
Now coded as C12-K04G2C

C12-K04A4 **.. Diagnosis of microbial infections**
1986-2015
Now coded as C12-K04G1A

C12-K04A4A **... Detection of viral diseases**
2005-2015
Now coded as C12-K04G1B

C12-K04A4B **... Detection of bacterial diseases**
2005-2015
Now coded as C12-K04G1C

C12-K04A4C **... Detection of fungal diseases**
2015-2015
Now coded as C12-K04G1D

C12-K04A5 **.. Diagnosis of CNS disorders**
1986-2015
Now coded as C12-K04G2D

C12-K04A6 **.. Diagnosis of pregnancy, testing or measuring sex hormone levels and estrus cycle**
1986-2015
Now coded as C12-K04G2E

C12-K04A7 **.. Detection of parasites**
Including protozoa and helminths.
2006-2015
Now coded as C12-K04G1E

C12-K04A8 **.. Diagnosis of immunological disorders**
2007-2015
Now coded as C12-K04G2F

C12-K04A9 **.. Diagnosis of respiratory disorders**
Includes detection of diseases such as anoxia, cystic fibrosis and bronchitis.
2012-2015
Now coded as C12-K04G2G

C12-K04A10 **.. Diagnosis or detection of endocrine and hormonal diseases**
Including thyroid diseases.
2015-2015
Now coded as C12-K04G2H

C12-K04B **. In vivo radiopharmaceutical diagnostics**
Excludes in-vivo X-ray and MRI diagnostics which are coded in C12-K07 and other types of in-vivo imaging which are coded in C12-K04C.
1986

C12-K04C **. In vivo imaging (other than by X-ray or radiopharmaceuticals)**
Includes imaging of complete organs, cells e.g. cancer cells, or other biological molecules within a whole body rather than a sample.
1986

C12-K04C1 **.. Ultrasonics**
1994
Previous code(s): C12-K04C

C12-K04C2 **.. NMR**
1994
Previous code(s): C12-K04C

C12-K04C3 **.. Tomography**
Includes PET (positron emission tomography).
2007

C12-K04D **. Testing for plant disorders or diseases**
1986

C12-K04E **. Testing for substances other than for diseases**
Not in body fluids.
1986

C12-K04E1 **.. Drug discovery process**
2005

C12-K04E2 **.. Environmental testing**
Includes testing for contaminants in rivers.
2005

C12-K04E3 **.. Other drug testing**
includes quality control
2007

C12-K04F **. Tests involving nucleic acid, hybridisation probes etc.**
1994
Previous code(s): C12-K04,C12-K04A

C12-K04G **. Diagnosis of diseases or conditions in animals general**
Including detection of glucose in blood and ethanol in breath.
2016
Previous code(s): C12-K04A

C12-K04G1 **.. Diagnosis of infections and exogenous disorders**
2016

C12-K04G1A **... Diagnosis of microbial diseases general and other**
2016
Previous code(s): C12-K04A4

C12-K04G1B **... Detection of viral diseases**
2016
Previous code(s): C12-K04A4A

C12-K04G1C **... Detection of bacterial diseases**
2016
Previous code(s): C12-K04A4B

C12-K04G1D **... Detection of fungal diseases**
2016
Previous code(s): C12-K04A4C

C12-K04G1E **... Detection of parasites**
Including protozoa and helminths.
2016
Previous code(s): C12-K04A7

C12-K04G2 **.. Diagnosis of endogenous disorders general and other**
2016

C12-K04G2A **... Diagnosis of tumors, cancer**
2016
Previous code(s): C12-K04A1

C12-K04G2B **... Diagnosis of heart and circulatory disorders**
2016
Previous code(s): C12-K04A2

C12-K04G2C **... Diagnosis of genetic disorders**
2016
Previous code(s): C12-K04A3

C12-K04G2D **... Diagnosis of CNS disorders**
2016
Previous code(s): C12-K04A5

C12-K04G2E **... Diagnosis of pregnancy, testing or measuring sex hormone levels and estrus cycle**
2016
Previous code(s): C12-K04A6

C12-K04G2F **... Diagnosis of immunological disorders**
2016
Previous code(s): C12-K04A8

C12-K04G2G **... Diagnosis of respiratory disorders**
Includes detection of diseases such as anoxia, cystic fibrosis and bronchitis.
2016
Previous code(s): C12-K04A9

C12-K04G2H **... Diagnosis of endocrine and hormonal diseases**
Including thyroid diseases.
2016
Previous code(s): C12-K04A10

C12-K04G2I **... Diagnosis of gastrointestinal disorders**
2016

C12-K04G2J **... Diagnosis of renal and urological disorders**
2016

C12-K04G2K **... Diagnosis of metabolic disorders**
2021

C12-K05 **Expectorant**
1965-1993
Now coded as: C14-K01E

C12-K06 **Respiratory active**
1965-1993
Now coded as: C14-K01,C14-K01C

C12-K07 **Contrast agents and medium**
Prior to 2010, this code covered X-ray contrast media only. Includes X-ray and MRI agents and media. Does not include radiopharmaceuticals (coded in C12-K04B) and other in-vivo imaging (coded in C12-K04C).
1963

C12-L **COSMETIC PREPARATION TYPE**

C12-L01 **Antiperspirant**
1965-1993
Now coded as: C14-R03

C12-L02 **Cosmetic**
1965-1993
Now coded as: C14-R01

C12-L03 **Dental agent**
1965-1993
Now coded as: C14-N06

C12-L04 **Ear, nose, eye mouth and throat preparation**
1965-1993
Now coded as: C14-N02, C14-N03, C14-N04, C14-N05

C12-L05 **Hair preparation**
1965-1993
Now coded as: C14-R02

C12-L06 **Insect repellent**
1965-1993
Now coded as: C14-B05

C12-L07 **Perfume**
1965-1993
Now coded as: C14-R04

C12-L08 **Sunscreen agent**
1965-1993
Now coded as: C14-R05

C12-L09 **Veterinary**
1965-1993

C12-L10 **Agricultural composition general**
1966-1993

C12-M **FORMULATIONS TYPE**
Codes in this section are applied only when the formulation is the main feature of the invention, or ingredients are not specified.

C12-M01 **Aerosol, inhalent, smoke general**

C12-M01A **. Aerosol**
1986

C12-M01B **. Inhalent**
1986

C12-M01B1 **.. Dry powder inhaler**
A dry powder inhaler (DPI) is similar to a metered dose inhaler, but is breath-activated, so the patient does not have to co-ordinate activation of the inhaler with inhalation of medicament.
2005

C12-M01B2 .. **Multidose inhaler**
A different type of inhaler that is also breath-activated. Used to deliver many smaller doses to make up the full required dosage.
2005

C12-M01B3 .. **Nebuliser**
A device which is used to administer a solution of drug in the form of a fine mist for patient to inhale. Air is forced through the drug solution in the drug chamber, changing the liquid into a fine mist which is breathed in through a mask or mouthpiece.
2005

C12-M01B4 .. **Metered dose inhaler**
2008

C12-M01C . **Smoke**
Also includes incense.
1986

C12-M01D . **Intranasal**
2002-2006
Now coded as: C12-M12Q

C12-M01E . **Other gaseous forms**
2005

C12-M02 **Cream, gel, ointment, plaster**

C12-M02A . **Toothpaste, toothpowder**
From 198601 C12-L03 is not additionally applied.
1986

C12-M02B . **Ointment, cream, lotion**
Includes liniment, paste, balm and other general oil-based formulations.
1986

C12-M02C . **Cataplasm, poultice**
Applying heat.
1986

C12-M02D . **Adhesive sheet, sticking plaster, bandage, gauze**
From 2006, the scope of this code has been extended to cover adhesive sheets in addition to sticking plasters and bandages. Also includes gauze. Excluding C12-M02C.
1986

C12-M02E . **Dusting powder**
Topical use only.
1986

C12-M02F . **Transdermal**
Administration of a drug through dermal or mucosal membrane. Includes microneedles.
1986

C12-M02G . **Gels/hydrogels**
2006

C12-M03 **Emulsion**

C12-M04 **Packaging material, apparatus**
This code is used in conjunction with only the C, C01, C07, C08 and C09 sub-sections of C11.

C12-M05 **Pharmaceutical composition general**

C12-M06 **Preservative**

C12-M07 **Solution**

C12-M08 **Suppository**
Also includes pessaries.

C12-M09 **Surfactant**

C12-M10 **Controlled release general**

C12-M10A . **Sustained release general**
Active ingredient is gradually released over a period of time.
1986

C12-M10A1 .. **Osmotic pump**
Similar to a reservoir device but with an osmotic agent added (typically the active agent in salt form) which causes pressure generation that forces out the active agent.
2005

C12-M10A2 .. **Reservoir devices**
Active drug core encapsulated within a polymer film or coat through which it diffuses.
2005

C12-M10A3 .. **Multi-layer tablet**
Variation on the matrix device in which the matrix is coated so as to modify the hydration/swelling of the core and so reduce the surface area available for drug delivery.
2005

C12-M10A4 .. **Other matrix devices**
Drug is present as a dispersion within a polymer matrix, including clathrates. Also known as monolithic devices. Not used for the multi-layer tablet type (in which matrix is fully or partially coated) or for externally stimulated devices.
2005

C12-M10A5 .. **Pendant devices**
Active is bound to polymer, from which it is released by hydrolytic enzymes in the body.
2005

C12-M10A6 .. **Dual release devices**
Typically soft gelatin capsules designed to provide an initial burst of drug followed by a steady release of the remainder. Consists of an inner aqueous matrix and outer lipophilic matrix.
2005

C12-M10A7 .. **Nanotechnology devices**
Use of nanotechnology to deliver drugs to specific sites and control their release at that point. Includes quantum dots.
2005

C12-M10B . **Delayed release**
This term is usually associated with enterically coated tablets which prevent the contents from being released until a drug reaches the intestines.
1986

C12-M10C . **Rapid release**
2002

C12-M10D . **Pulsed release**
Active drug core coated with specific polymers and agents, where active agent is released in a "drug pulse" after a time lag.
2005

C12-M10E . **Site-specific release**
Drug bound to/encased in a bio-polymer or other active substance in order to facilitate its transfer through the cell wall. This ensures the drug is delivered to the specific cells it needs to reach.
2005

C12-M10E1 .. **Using lipid-based systems**
A site specific release form in which the drug is encased in a lipid based system. These may include liposomes, solid lipid nanoparticles (SLNs), nanostructured lipid carriers (NLC) and hybrid nanoparticles.
2005

C12-M10E2 .. **Using antibodies**
A site-specific release form in which the drug is bound to an antibody.
2005

C12-M10E3 .. **Using nucleic acids**
A site-specific release form in which the drug is bound to nucleic acid.
2017

C12-M10E4 .. **Using protein/peptide**
A site-specific release form in which the drug is bound to a protein/peptide.
2019

C12-M10F . **Externally stimulated devices (e.g. electrically or ultrasonically)**
Any controlled release device in which the release of the drug is by an external stimulus. May be used in conjunction with other C12-M10 codes.
2005

C12-M11 **Tablets, capsules, pills etc. general**

C12-M11A . **Anticaking**
1986

C12-M11B . **Tablet (pressed)**
1986

C12-M11C . **Capsule**
Excluding microcapsule.
1986

C12-M11D . **Pellet, prill, granule, particle**
Excluding C12-M11B.
1986

C12-M11E . **Microcapsule**
Excluding C12-M11F.
1986

C12-M11F . **Liposomes/niosomes**
Includes non-ionic surfactant-based liposomes (when site specific release is not mentioned). Includes micelles.
1986

C12-M11G . **Powder**
1986

C12-M11H . **Polymorphic form**
2010

C12-M11H1 .. **Special amorphous form**
2006

C12-M11H2 .. **Special crystal form**
2010

C12-M11J . **Effervescent formulation**
Includes effervescent tablets and effervescent granules.
1994

C12-M11K . **Tablet with two or more coating layers**
1994
Previous code(s): C12-M11B

C12-M11L . **Water-soluble formulation**
Includes water-soluble tablets and water-soluble granules.
2002

C12-M11M . **Chewable tablet**
2005

C12-M11N . **Microparticle**
2006

C12-M11P . **Lyophilized form**
Also includes freeze dried forms.
2006

C12-M11Q . **Nanoformulations**
2008

C12-M11Q1 .. **Nanoparticle**
2020

C12-M11Q2 .. **Nanoemulsion**
2020

C12-M11Q3 .. **Nanosuspension**
2020

C12-M11R . **Coated form general and other**
Tablets with two or more coating layers are coded under C12-M11K.
2009

C12-M11R1 .. **Coated capsules**
2009

C12-M11R2 .. **Coated microparticles**
2009

C12-M11R3 .. **Coated tablets**
2012

C12-M11S . **Foam formulation**
2011

C12-M11T . **Lozenge**
2014

C12-M11U . **Dual dosage forms**
E.g. tablet in capsule / pellet in capsule. To be searched alongside the C12 codes for each individual dosage component.
2016

C12-M11V . **Colloidal form**
May be searched with other code(s) from C12-M.
2016

C12-M11Z . **Pro-formulation**
Additional code to indicate the pro-form of a formulation, e.g. pro-liposomes. Applied in conjunction with other C12-M11 codes.
2015

C12-M12 MODE OF ADMINISTRATION
2005

C12-M12A . **Buccal, sublingual**
2005

C12-M12B . **External, topical**
2005

C12-M12C . **Injection**
2005

C12-M12D . **Infusion**
2005

C12-M12E . **Intraarterial**
2005

C12-M12F . **Intravenous**
2005

C12-M12G . **Intraaural**
2005

C12-M12H . **Intraocular**
Includes intravitreal.
2005

C12-M12I . **Intratracheal**
2020

C12-M12J . **Intramuscular**
2005

C12-M12K . **Subcutaneous**
2005

C12-M12L . **Intrauterine, cervical**
2005

C12-M12M . **Intravaginal**
2005

C12-M12N . **Oral general**
2005

C12-M12O . **Intraosseous**
Administration directly into bone.
2020

C12-M12P . **Rectal general**
2005

C12-M12Q . **Intranasal**
2006

C12-M12R . **Intrathecal**
2012

C12-M12S . **Intraarticular**
2013

C12-M12T . **Intramedular**
Intramedular/intramedullary.
2013

C12-M12U . **Intraperitoneal**
2013

C12-M12V . **Epidural**
Mode of administration is through the spinal cord.
2015

C12-M12W . **Intravesical**
Injecting drugs directly to urinary bladder.
2017

C12-M12X . **Intratumoral**
2019

C12-M12Y . **Intracardiac**
Administration directly into the heart.
2020

C12-M12Z . **Specific treatment regime**
Includes sequential administration of drugs, tapered dosing regimes.
2011

C12-M13 **Foliar application**
2005

C12-M14 **Suspensions, dispersions**
2005

C12-M15 **Film, sheet**
Includes laminates.
2005

C12-M16 **Prosthesis**
2005

C12-M17 **Surgical sponge, tampon**
2005

C12-M18 **Encapsulation**
2005

C12-M19 **Gene delivery methods**
2006

C12-M19A . **Gene delivery by viral methods**
2006

C12-M19B . **Gene delivery by non-viral methods**
2006

C12-M20 **Taste masking agent**
2007

C12-M21 **Absorbent, accelerator**
2007

C12-M22 **Formulations to prevent drugs from being abused**
2008

C12-N **PESTICIDES, FERTILIZERS**

C12-N01 **Pesticides general**
1965-1993

C12-N02 **Insecticides**
1965-1993

C12-N03 **Lures, baits etc**
1965-1993

C12-N04 **Molluscicide, slugicide**
1965-1993

C12-N05 **Rodenticide**
Including birds etc.
1965-1993

C12-N06 **Rodent repellent**
Including birds etc.
1965-1993

C12-N07 **Soil fumigants, sterilants and seed protectants**
1965-1993

C12-N08 **Soil improving (other than nutrients), synthetic growth media**
1965-1993

C12-N09 **Soil nutrients**
Inorganic, including trace elements.
1965-1993

C12-N10 **Soil nutrients (others)**
1965-1993

C12-P **PLANT GROWTH REGULANT TYPE**

C12-P01 **Plant growth regulants general**
1965-1993

C12-P02 **Defoliants, desiccants, chemical mowing**
1965-1993

C12-P03 **Fruit drop and set, thinning of fruit**
1965-1993

C12-P04 **Growth stimulants, phytohormones**
1965-1993

C12-P05 **Herbicide (total and general)**
1965-1993

C12-P06 **Herbicide (selective)**
1965-1993

C12-P07 **Moss, lichen controlling**
1965-1993

C12-P08 **Rooting cpds. (rhizogenes)**
1965-1993

C12-P09 **Sprouting inhibitors, seed germination inhibitors, growth inhibitors**
1965-1993

C12-P10 **Moisture conservation (mulches)**
1965-1993

C12-Q01 **TARGETED THERAPIES**
Includes pharmacogenomics, precision medicine, personalised medicine and theranostics.
2006

C12-Q01A . **Pharmacogenomics general**
2006

C12-R **FORMULATION SPECIFICALLY EXCLUDING ONE OR MORE COMPONENTS**
e.g. herbicide formulation specifically excluding glyphosate. The component(s) excluded is/are not coded in sections C01-C10.
2009

C14 AGRICULTURAL ACTIVITIES

When a patent refers to a drug's mode of action and lists a number of activities associated with it, only the mode of action is coded.

When a patent refers to a class of diseases and then specifies only one preferred condition, both the general and specific disease codes should be applied.

C14-A **ANTIMICROBIALS**
1994

C14-A01 **Antibacterial general**
1994
Previous code(s): C12-A01

C14-A01A **. Gram-negative genera, general andother**
1994
Previous code(s): C12-A01

C14-A01A1 **.. Bordetella**
e.g. B. pertussis.
1994
Previous code(s): C12-A01

C14-A01A2 **.. Borrelia**
e.g. B. burgdorferi (causes Lyme disease)
1994
Previous code(s): C12-A01

C14-A01A3 **.. Escherichia**
e.g. E. coli.
1994
Previous code(s): C12-A01

C14-A01A4 **.. Mycoplasma**
e.g. M. pneumoniae, M. mycoides.
1994
Previous code(s): C12-A01

C14-A01A5 **.. Neisseria**
e.g. N. gonorrhoeae, N. meningitidis.
1994
Previous code(s): C12-A05

C14-A01A6 **.. Pseudomonas**
e.g. P. aeruginosa, P. mallei.
1994
Previous code(s): C12-A01

C14-A01A7 **.. Rickettsia**
e.g. R. prowazekii (causes typhus).
1994
Previous code(s): C12-A01

C14-A01A8 **.. Salmonella**
e.g. S. typhi (causes typhoid fever).
1994
Previous code(s): C12-A01

C14-A01A9 .. **Vibrio**
e.g. V. cholerae, V. parahemoliticus.
1994
Previous code(s): C12-A01

C14-A01B . **Gram-positive genera, general and other**
1994
Previous code(s): C12-A01

C14-A01B1 .. **Mycobacteria**
e.g. M.bovis, M. phlei.
1994
Previous code(s): C12-A01, C12-A03, C12-A04

C14-A01B1A ... **M. tuberculosis**
2005

C14-A01B1B ... **M. leprae**
2005

C14-A01B2 .. **Streptococcus**
e.g. S. pyogenes, S. faecalis, S. pneumoniae (pneumococci), S. lactis.
1994
Previous code(s): C12-A01

C14-A01B3 .. **Streptomyces**
e.g. S. griseus, S. scabies.
1994
Previous code(s): C12-A01

C14-A01B4 .. **Staphylococcus**
e.g. S. aureus, S. epidermitidis.
1994
Previous code(s): C12-A01

C14-A01B5 .. **Bacillus**
e.g. B.anthracis, B. cereus.
2006

C14-A01C . **Plant antibacterial general**
1994
Previous code(s): C12-A06

C14-A01C1 .. **Enterobacteria (plant)**
e.g. Erwinia. Including soft rot, fibre blight treatment.
1994
Previous code(s): C12-A01

C14-A01C2 .. **Pseudomonas (plant)**
Including plant spot, canker, gummosis treatment.
1994
Previous code(s): C12-A01

C14-A01C3 .. **Agrobacteria**
Including crown gall treatment.
1994
Previous code(s): C12-A01

C14-A01X . **Combating resistant bacteria**
This code is applied in conjunction with one or more codes from section C14-A01.
2013

C14-A02 **Antiviral general**
1994
Previous code(s): C12-A06

C14-A02A . **DNA Viruses general and other**
1994
Previous code(s): C12-A06

C14-A02A1 .. **Adenovirus**
1994
Previous code(s): C12-A06

C14-A02A2 .. **Arbovirus**
This code is used for treatment of e.g. yellow fever or viral encephalitis.
1994
Previous code(s): C12-A06

C14-A02A3 .. **Herpesvirus**
e.g. cytomegalovirus, Epstein-Barr, chicken pox.
1994
Previous code(s): C12-A06

C14-A02A4 .. **Poxvirus**
Including monkeypox.
1994
Previous code(s): C12-A06

C14-A02A5 .. **Hepatitis B virus**
1994
Previous code(s): C12-A06, C12-G02

C14-A02A6 .. **Papovavirus**
e.g. papilloma.
1994
Previous code(s): C12-A06

C14-A02A7 .. **Hepatitis C treatment**
Now coded as C14-A02B9.
2002-2014

C14-A02A8 .. **Hepatitis D treatment**
2002

C14-A02A9 .. **Parvovirus**
Includes treatment of “slapped cheek” syndrome.
2005

C14-A02B . **RNA Viruses general and other**
Includes Filoviridae e.g. Ebola virus and Marburg virus.
1994
Previous code(s): C12-A06

C14-A02B0 .. **Calcivirus**
e.g. norovirus, lagovirus, sapovirus, feline calcivirus.
2014

C14-A02B1 .. **Retrovirus**
Including leuco- and oncoviruses, T-cell leukemia virus, HIV, Rous sarcoma. Treatment of AIDS directed against symptoms or immune system is coded C14-G01B.
1994
Previous code(s): C12-A06, C12-G05, C12-G07

C14-A02B2 .. **(Para/ortho)Myxovirus**
Including Influenza and mumps. When treatment of influenza is directed against symptoms, other codes may be applied, e.g. antipyretic drug for treating flu is coded C14-C04.
1994
Previous code(s): C12-A06

C14-A02B3 .. **Picornavirus**
Including entero-, rhino-, polio-, cold, hepatitis A. For hepatitis B see C14-A02A5. When treatment of cold is directed against symptoms, other codes may be applied, e.g. antiinflammatory drug for treating cold is coded C14-C03.
1994
Previous code(s): C12-A06,C12-G02

C14-A02B4 .. **Rhabdovirus**
Including rabies.
1994
Previous code(s): C12-A06

C14-A02B5 .. **Coronavirus**
Including SARS, also coded as C14-K01D.
1994
Previous code(s): C12-A06

C14-A02B6 .. **Togavirus**
Including rubella.
1994
Previous code(s): C12-A06

C14-A02B7 .. **Reovirus**
e.g. rotavirus.
1994
Previous code(s): C12-A06

C14-A02B8 .. **Plant antiviral general**
This code covers treatment of plant viral diseases e.g. mosaic, yellow disease.
1994
Previous code(s): C12-A06

C14-A02B9 .. **Flavivirus**
Includes Yellow Fever virus, Japanese encephalitis virus, Dengue virus, Hepatitis C and G virus and West Nile virus. Prior to 201501, Hepatitis C virus was coded C14-A02A7.
2005

C14-A02X . **Combating resistant viruses**
This code is applied in conjunction with one or more codes from section C14-A02.
2013

C14-A03 **Antiprotozoal general and other**
1994
Previous code(s): C12-B04

C14-A03A . **Amoebicide**
1994
Previous code(s): C12-B01

C14-A03B . **Antimalarial**
Plasmodium is the malarial parasite.
1994
Previous code(s): C12-B03

C14-A03C . **Coccidiostat**
Includes Eimeria and Isospora.
1994
Previous code(s): C12-B05

C14-A03D . **Trichomonicide, histomonicide**
1994
Previous code(s): C12-B04

C14-A03E . **Trypanocide**
i.e. sleeping sickness.
1994
Previous code(s): C12-B07

C14-A03F . **Other antiprotozoal**
2005

C14-A03X . **Combating resistant protozoa**
This code is applied in conjunction with one or more codes from section C14-A03.
2014

C14-A04 **Antifungal general and other**
1994

C14-A04A . **Aspergillus**
1994
Previous code(s): C12-A02C

C14-A04B . **Candida**
This code covers treatment of thrush.
1994
Previous code(s): C12-A02C

C14-A04C . **Trichophyton, Microsporum**
This code covers treatment of e.g. ringworm, tinea, athlete's foot.
1994
Previous code(s): C12-A02C

C14-A04X . **Combating resistant fungi**
This code is applied in conjunction with one or more codes from section C14-A04.
2013

C14-A05 **Antialgal**
1994
Previous code(s): C12-A02A

C14-A06 **Plant antifungal general**
1994
Previous code(s): C12-A02C

C14-A06A . **Alternaria**
1994
Previous code(s): C12-A02C

C14-A06B . **Botrytis**
1994
Previous code(s): C12-A02C

C14-A06C . **Fusarium**
1994
Previous code(s): C12-A02C

C14-A06D . **Helminthosporium**
1994
Previous code(s): C12-A02C

C14-A06E . **Phytophthora**
1994
Previous code(s): C12-A02C

C14-A06F . **Pythium**
1994
Previous code(s): C12-A02C

C14-A06G . **Rhizoctonia**
1994
Previous code(s): C12-AO2C

C14-A06H . **Sclerotinia**
1994
Previous code(s): C12-A02C

C14-A06J . **Sclerotium**
1994
Previous code(s): C12-A02C

C14-A06K . **Septoria**
1994
Previous code(s): C12-A02C

C14-A06L . **Venturia**
1994
Previous code(s): C12-A02C

C14-A06M . **Verticillium**
1994
Previous code(s): C12-A02C

C14-A06N . **Powdery mildew**
e.g. Erysiphe, Sphaerotheca, Podosphaera, Uncinula.
1994
Previous code(s): C12-A02C

C14-A06P . **Downey mildew**
e.g. Plasmopara, Peronospora.
1994
Previous code(s): C12-A02C

C14-A06R . **Rusts**
1994
Previous code(s): C12-A02C

C14-A06S . **Smuts, bunts**
e.g. Ustilago, Tilletia.
1994
Previous code(s): C12-A02C

C14-A06T . **Others**
1994
Previous code(s): C12-A02C

C14-A06X . **Combating resistant plant fungi**
This code is applied in conjunction with one or more codes from section C14-A06.
2013

C14-B **PESTICIDES AND OTHER ANTIPARASITICS**
1994

C14-B01 **Pesticide general**
This code is applied only when type is unspecified or general.
1994
Previous code(s): C12-N01

C14-B02 **Antiparasitic general**
This code is applied only when type is unspecified or general.
1994
Previous code(s): C12-B04

C14-B02X . **Combating resistant parasites**
2020

C14-B03 **Vermicide, antihelmintic general and other**
1994
Previous code(s): C12-B02

C14-B03A . **Nematocide**
Including threadworm.
1994
Previous code(s): C12-B02

C14-B03B . **Schistosomicide**
1994
Previous code(s): C12-B06

C14-B03C . **Tapeworm**
1994
Previous code(s): C12-B02

C14-B03D . **Distomicide, other fluke**
2005

C14-B03X **. Combating resistant worms and helminths general**
This code is applied in conjunction with one or more codes from section C14-B03.
2018

C14-B04 **Arthropodicide general and other**
Includes crustacicide, arachnicide.
1994
Previous code(s): C12-N01

C14-B04A **. Acaricide**
Includes miticides, tickicides.
1994
Previous code(s): C12-B04

C14-B04B **. Insecticide general and other**
1994
Previous code(s): C12-N02

C14-B04B1 **.. Coleoptera**
Covers beetle killing.
1994
Previous code(s): C12-N02

C14-B04B2 **.. Dictyoptera**
Covers cockroach killing and termite killing.
1994
Previous code(s): C12-N02

C14-B04B3 **.. Diptera**
Includes house fly, gnat, and mosquito killing.
1994
Previous code(s): C12-N02

C14-B04B4 **.. Ephemeroptera**
Includes mayfly killing.
1994
Previous code(s): C12-N02

C14-B04B5 **.. Hemiptera**
Includes aphid (greenfly) killing.
1994
Previous code(s): C12-N02

C14-B04B6 **.. Hymenoptera**
Includes bee, wasp and ant killing.
1994
Previous code(s): C12-N02

C14-B04B7 **.. Lepidoptera**
Covers butterfly and moth killing.
1994
Previous code(s): C12-N02

C14-B04B8 **.. Orthoptera**
Covers locust killing.
1994
Previous code(s): C12-N02

C14-B04B9 **.. Siphonaptera**
Includes flea killing.
1994
Previous code(s): C12-N02

C14-B04X **. Combating resistant arthropods**
This code is applied in conjunction with one or more codes from section C14-B04.
2013

C14-B05 **Arthropod repellent**
Covers insects, crustaceans, arachnids, millipedes, ticks and mites.
1994
Previous code(s): C12-L06

C14-B06 **Arthropod attractant (pheromone)**
Covers insects, crustaceans, arachnids, millipedes, ticks and mites.
1994
Previous code(s): C12-N03

C14-B07 **Arthropod sterilant**
Covers insects, crustaceans, arachnids, millipedes, ticks and mites.
1994
Previous code(s): C12-K03

C14-B08 **Antilichen**
1994
Previous code(s): C12-A02B

C14-B09 **Rodenticide**
1994
Previous code(s): C12-N05

C14-B10 **Avicide**
1994
Previous code(s): C12-N05

C14-B11 **Piscicide**
1994
Previous code(s): C12-N05

C14-B12 **Molluscicide**
Includes gastropodicide, slug, snail, bivalve, octopus killing.
1994
Previous code(s): C12-N04

C14-B13 **Animal repellent (other than insect)**
1994
Previous code(s): C12-N06

C14-B14 **Lures, baits (other than insect pheromones)**
1994
Previous code(s): C12-N03

C14-B15 **Antifouling**
1994
Previous code(s): C12-A08

C14-C ANESTHETICS AND DRUGS RELIEVING FEVER, INFLAMMATION AND PAIN
1994

C14-C01 Analgesic
This code is used when the action of the analgesic is very wide or unspecified. A more specific code is applied where possible e.g. analgesic for treating dysmenorrhea only is coded under C14-N14 only.
1994
Previous code(s): C12-D01

C14-C02 Antigout
1994
Previous code(s): C12-D07, C12-G03

C14-C03 Antiinflammatory general
This code is used for treatment of general edema or inflammation. Specific inflammation treatments are coded elsewhere when possible e.g. Bronchitis is coded C14-K01 only, colitis as C14-E01C only etc.
1994
Previous code(s): C12-D07

C14-C04 Antipyretic
1994
Previous code(s): C12-D08

C14-C05 Antihypothermia
1994
Previous code(s): C12-D08

C14-C06 Antirheumatic
1994
Previous code(s): C12-D09

C14-C07 General anesthetic
1994
Previous code(s): C12-C01

C14-C08 Local anesthetic
1994
Previous code(s): C12-C02

C14-C09 Antiarthritic general and other
1994
Previous code(s): C12-D03

C14-C09A . Osteoarthritis
1994
Previous code(s): C12-D03

C14-C09B . Rheumatoid arthritis
1994
Previous code(s): C12-D03

C14-D HORMONAL, ANTIHORMONAL, ENZYME INHIBITORS
Codes marked * are also used for agonist/mimetic or receptor agonist/mimetic activities. Codes marked ** are also used for antagonist/inhibitor or receptor antagonist/inhibitor activities e.g. aldosterone receptor antagonist is coded C14-D02A1. See section C14-L for other agonist/antagonist activities.
1994

C14-D01 Hormonal general and other*
1994
Previous code(s): C12-G04

C14-D01A . Androgenic*
1994
Previous code(s): C12-G04B

C14-D01B . Estrogenic*
1994
Previous code(s): C12-G04C

C14-D01C . Progestational*
1994
Previous code(s): C12-G04D

C14-D01D . Other steroid*
1994
Previous code(s): C12-G04

C14-D01E . Peptide hormone activity*
1994
Previous code(s): C12-G04

C14-D01E1 .. Melanocortin agonist
Adrenocorticotropic hormone agonist.
2005

C14-D01E2 .. Melanin concentrating hormone agonist
2005

C14-D01E3 .. Glucagon-like peptide-1 (GLP-1) agonist
2025

C14-D02 Antihormonal general and other**
1994
Previous code(s): C12-G01A

C14-D02A . Antisteroid general and other**
1994
Previous code(s): C12-G01A

C14-D02A1 .. Antialdosterone**
1994
Previous code(s): C12-G01A

C14-D02A2 .. Anticholesterol**
1994
Previous code(s): C12-H03

C14-D02A3 .. Antiestrogenic
This code also covers estrogenic antagonist/inhibitor activity and

estrogen receptor antagonist/inhibitor activities.
2005

C14-D02A4 .. **Antiprogestational**
This code also covers progestational antagonist/inhibitor activity and progestational receptor antagonist/inhibitor activities.
2005

C14-D02A5 .. **Antiandrogenic**
This code also covers androgenic antagonist/inhibitor activity and androgen receptor antagonist/inhibitor activities.
2005

C14-D02A6 .. **Other antisteroid hormone**
This code also covers other steroid antagonist/inhibitor activity and other steroid receptor antagonist/inhibitor activities.
2005

C14-D02B . **Antipeptide hormone****
1994
Previous code(s): C12-G01A

C14-D02B1 .. **Melanocortin antagonist**
2005

C14-D02B2 .. **Melanin concentrating hormone antagonist**
2005

C14-D03 **Enzyme inhibitors general and other**
1994
Previous code(s): C12-G01B

C14-D04 **Coenzyme inhibitors**
1994
Previous code(s): C12-G01B

C14-D05 **Antioxidoreductases general and other**
1994
Previous code(s): C12-G01B1

C14-D05A . **Antioxidases**
1994
Previous code(s): C12-G01B1

C14-D05B . **Antiperoxidases**
1994
Previous code(s): C12-G01B1

C14-D05C . **Antioxygenases**
1994
Previous code(s): C12-G01B1

C14-D05D . **Antidehydrogenases, Antireductases**
1994
Previous code(s): C12-G01B1

C14-D06 **Antitransferases general and other**
Includes HIV integrase inhibitor.
1994
Previous code(s): C12-G01B2

C14-D06A . **AntiDNA/RNA polymerase**
1994
Previous code(s): C12-G01B2

C14-D06B . **Antireverse transcriptase**
1994
Previous code(s): C12-G01B2

C14-D06C . **Antikinase**
2005

C14-D07 **Antihydrolases general and other**
1994
Previous code(s): C12-G01B3

C14-D07A . **Antiesterases**
Including lipase, nuclease, restriction enzyme, sulfatase, phosphatase inhibitors.
1994
Previous code(s): C12-G01B3

C14-D07A1 .. **Antiphosphodiesterases**
2005

C14-D07B . **Antiglycosidases**
Including amylase, cellulase, lactase inhibitors.
1994
Previous code(s): C12-G01B3

C14-D07C . **Antiproteases, antipeptide hydrolases**
Including chymotrypsin, trypsin, papain, fibrinolysin, renin, collagenase, elastase inhibitors. Renin inhibitor used as hypotensive is coded C14-F02B1 only.
1994
Previous code(s): C12-G01B3

C14-D07C1 .. **Antimetalloproteases**
2005

C14-D08 **Antilyases**
Including adenyl cyclase, (de)carboxylase, aldolase, dehydratase inhibitors.
1994
Previous code(s): C12-G01B4

C14-D09 **Antiisomerases**
Including racemase, tautomerase, epimerase, mutase inhibitors.
1994
Previous code(s): C12-G01B5

C14-D10 **Antiligases**
Including synthetase, some carboxylase inhibitors.
1994
Previous code(s): C12-G01B6

C14-E **DRUGS ACTING ON THE GASTROINTESTINAL SYSTEM**
1994

C14-E01 **Antacid**
1994
Previous code(s): C12-J03

C14-E02 **Antidiarrheal**
1994
Previous code(s): C12-J04

C14-E03 **Antiflatulent**
1994
Previous code(s): C12-J03

C14-E04 **Antihemorrhoidal**
1994
Previous code(s): C12-J04

C14-E05 **Antiemetic**
1994
Previous code(s): C12-D05

C14-E06 **Emetic**
1994
Previous code(s): C12-J06

C14-E07 **Gastric secretion inhibitor**
1994
Previous code(s): C12-J02

C14-E08 **Ulcer treatment (peptic, gastric, duodenal)**
Skin ulcers are coded C14-N17H.
1994
Previous code(s): C12-E08

C14-E09 **Laxative**
1994
Previous code(s): C12-J07

C14-E10 **Gastrointestinal dysfunction general and other**
1994
Previous code(s): C12-J01

C14-E10A **. Esophageal**
1994
Previous code(s): C12-J01

C14-E10B **. Gastric**
Includes gastritis.
1994
Previous code(s): C12-J01

C14-E10C **. Bowel**
Including irritable and inflammatory bowel (e.g. IBS).
1994
Previous code(s): C12-J01

C14-E10C1 **.. Inflammatory bowel conditions**
2005

C14-E10D **. Dysentery**
1994
Previous code(s): C12-B01, C12-A01, C12-A06, C12-J04, C12-J05

C14-E10E **. Gastrointestinal flora**
2008

C14-E11 **Anabolic, anorexia treatment general**
1994
Previous code(s): C12-J01

C14-E11A **. Anorexia**
2005

C14-E11B **. Cachexia**
Any general reduction in the vitality and/or strength of the body and/or mind as a result of a debilitating chronic illness.
2005

C14-E11C **. Malnutrition**
2005

C14-E11D **. Bulimia**
2005

C14-E12 **Anorectic, obesity treatment (appetite depressant)**
1994
Previous code(s): C12-J02

C14-F **DRUGS ACTING ON THE BLOOD AND CARDIOVASCULAR SYSTEM**
The codes marked with * are also used for agonist/mimetic or receptor agonist/mimetic activities. The codes marked with ** are also used for antagonist/inhibitor or receptor antagonist/inhibitor activities. See section C14-L for other agonist/antagonist activities.
1994

C14-F01 **Cardioactive general and other**
1994
Previous code(s): C12-F01

C14-F01A **. Antiarrhythmic**
1994
Previous code(s): C12-F01A

C14-F01B **. Cardiac stimulant**
Including treatment of myocardial infarct, myocardial contraction intensifying, cardiotonic, cardiac arrest treatment, cardiac insufficiency treatment.
1994
Previous code(s): C12-F01B

C14-F01C **. Cardiac depressant**
1994
Previous code(s): C12-F01C

C14-F01D **. Antianginal**
1994
Previous code(s): C12-F02

C14-F01E **. Coronary dilator, coronary ischemia treatment**
1994
Previous code(s): C12-F02

C14-F01F . **Ganglion blocker**
1994
Previous code(s): C12-F03

C14-F01G . **Restenosis treatment**
2002

C14-F02 **Circulatory active general and other**
1994
Previous code(s): C12-E01

C14-F02A . **Hypertensive (calcium agonists)***
1994
Previous code(s): C12-F04

C14-F02B . **Hypotensive general and other**
1994
Previous code(s): C12-F05

C14-F02B1 .. **Angiotensin converting enzyme inhibitor, angiotensin antagonists****
This code is also applied to renin inhibitor when it is used as hypotensive.
1994
Previous code(s): C12-F05A

C14-F02B2 .. **Calcium antagonists/entry blockers****
1994
Previous code(s): C12-F05B, C12-G01

C14-F02C . **Vasoconstrictor**
1994
Previous code(s): C12-F06

C14-F02D . **Vasodilator, general ischemia treatment**
1994
Previous code(s): C12-F07

C14-F02D1 .. **Cerebral ischemia treatment**
1994
Previous code(s): C12-F07, C12-C10

C14-F02D2 .. **Pulmonary ischemia treatment**
1994
Previous code(s): C12-K06

C14-F02E . **Lymphatic disease treatment**
1994
Previous code(s): C12-G03

C14-F02F . **Peripheral vascular disorder/ angiogenic general**
2002

C14-F02F1 .. **Angiogenic**
2002

C14-F02F2 .. **Anti-angiogenic**
2002

C14-F02F3 .. **Peripheral vascular disorder**
2002

C14-F03 **Antianemic**
This code covers treatment of blood cell ratio imbalance.
1994
Previous code(s): C12-H01

C14-F04 **Anticoagulant, antiaggregants, thrombolytic**
1994
Previous code(s): C12-H02

C14-F05 **Reperfusion treatment**
1994

C14-F06 **Antilipemic**
1994
Previous code(s): C12-H03

C14-F06A . **Dyslipidemia**
2005

C14-F06B . **Hypertriglyceremia**
2011

C14-F07 **Antiarteriosclerotic**
Includes atherosclerosis.
1994
Previous code(s): C12-H03

C14-F08 **Coagulant**
1994
Previous code(s): C12-H04

C14-F09 **Hypoglycaemic**
Treatment of diabetic symptoms is coded C14-S04.
1994
Previous code(s): C12-H05

C14-F10 **Hyperglycaemic**
1994
Previous code(s): C12-H05

C14-F11 **Plasma and blood substitutes**
1994
Previous code(s): C12-H06

C14-G **DRUGS ACTING ON THE IMMUNE SYSTEM**
1994

C14-G01 **Immunostimulant general and other**
1994
Previous code(s): C12-A01, C12-A06

C14-G01A . **Interferon inducing**
This code is also used for agonist/mimetic or receptor agonist/mimetic activity.
1994
Previous code(s): C12-A06

C14-G01B . **AIDS treatment**
A drug which combats HIV is coded C14-A02B1.
1994
Previous code(s): C12-A06

C14-G02 **Immunosuppressant general and other**
1994
Previous code(s): C12-D02B

C14-G02A **. Antiallergic**
1994
Previous code(s): C12-D02

C14-G02B **. Antianaphylactic**
1994
Previous code(s): C12-D02D

C14-G02C **. Graft/transplant rejection treatment**
1994
Previous code(s): C12-D02B

C14-G02D **. Autoimmune disease treatment**
1994
Previous code(s): C12-D02A

C14-G03 **Immunomodulatory**
1994
Previous code(s): C12-A01, C12-A06, C12-D02B

C14-H **CANCER RELATED DRUGS**
Codes from sections C14-H01D - H01Z are now structured within the hierarchy C14-H01D to C14-H01L below. All document records containing codes introduced in 2005 will be changed to reflect the updated 2006 hierarchy and codes C14-H01M to C14-H01Z will no longer be searchable.
1994

C14-H01 **Anticancer general and other**
1994
Previous code(s): C12-G07

C14-H01A **. Leukemia treatment**
1994
Previous code(s): C12-G05

C14-H01B **. Antiproliferative, inhibitor of cell division, cytostatic, cytoprotective**
1994
Previous code(s): C12-D07, C12-E08, C12-G07

C14-H01C **. Dermatological cancers**
2005

C14-H01D **. Endocrine cancers**
2005

C14-H01D1 **.. Breast cancers**
2005

C14-H01D2 **.. Thyroid cancers**
2005

C14-H01E **. Gastrointestinal cancers**
2005

C14-H01E1 **.. Colon cancers**
2005

C14-H01E2 **.. Esophageal cancers**
2005

C14-H01E3 **.. Gall bladder cancers**
2005

C14-H01E4 **.. Intestinal cancers**
2005

C14-H01E5 **.. Hepatic cancers**
2005

C14-H01E6 **.. Pancreatic cancers**
2005

C14-H01E7 **.. Rectal cancers**
2005

C14-H01E8 **.. Stomach cancers**
2005

C14-H01F **. Genitourinary cancers**
2005

C14-H01F1 **.. Cervical/uterine cancers**
2005

C14-H01F2 **.. Kidney cancers**
2005

C14-H01F3 **.. Ovarian cancers**
2005

C14-H01F4 **.. Prostate cancers**
2005

C14-H01F5 **.. Testicular cancers**
2005

C14-H01F6 **.. Bladder cancers**
2005

C14-H01G **. Immunological cancers**
2005

C14-H01G1 **.. Hodgkin's lymphoma**
2005

C14-H01G2 **.. Non-Hodgkin's lymphoma**
2005

C14-H01H **. Musculoskeletal cancers**
2005

C14-H01H1 **.. Osteocancers**
2005

C14-H01H2 **.. Sarcoma**
2005

C14-H01J **. Neurological cancers**
2005

C14-H01J1 **.. Brain tumours**
2005

C14-H01K **. Oral and respiratory cancers**
2005

C14-H01K1 **.. Buccal cavity and pharynx cancers**
2005

C14-H01K2 **.. Larynx cancers**
2005

C14-H01K3 .. **Lung cancers**
2005

C14-H01L . **Other cancers**
2005

C14-H01L1 .. **Multiple myelomas**
2005

C14-H02 **Mutagen, carcinogen**
1994
Previous code(s): C12-G07

C14-H03 **Apoptotic**
2002

C14-H04 **Anti-apoptotic**
2002

C14-H05 **Antiproliferative (non-cancerous)**
e.g. hyperplasia.
2006

C14-H06 **Tumor sensitizers**
Search when sensitizer type is not specified.
2008

C14-H06A . **Radiosensitizers**
2016

C14-H06B . **Photosensitizers**
2016

C14-H06C . **Chemosensitizers**
2021

C14-H06D . **Sonosensitizers**
2023

C14-H07 **Hypoplasia and aplasia**
To be searched in the general case where the affected organ(s) are not specified.
2016

C14-H00X **Treatment resistant cancers**
To be applied in conjunction with other code(s) from C14-H where the cancer(s) to be treated are stated to be drug-, radiotherapy- and/or chemotherapy resistant.
2014

C14-J **DRUGS ACTING ON THE MUSCULAR AND NERVOUS SYSTEMS**
Codes marked * are also used for agonist/mimetic or receptor agonist/mimetic activities e.g. dopamine receptor agonist is coded dopaminergic C14-J02C2. Codes marked ** are also used for antagonist/inhibitor or receptor antagonist/inhibitor activities.
1994

C14-J01 **CNS active general and other**
Covers terms such as cerebroprotective and neuroprotective.
1994
Previous code(s): C12-C10

C14-J01A . **Stimulants general and other**
1994
Previous code(s): C12-C06

C14-J01A1 .. **Antidepressant**
1994
Previous code(s): C12-C06

C14-J01A2 .. **Analeptic**
1994
Previous code(s): C12-C03

C14-J01A3 .. **Antiparkinsonian**
1994
Previous code(s): C12-C04

C14-J01A4 .. **Alzheimer's, Huntington's, senility, senile dementia, cognitive enhancer, antiamnesia, nootropics**
1994
Previous code(s): C12-C10, C12-G04A

C14-J01B . **Depressants general and other**
1994
Previous code(s): C12-C05

C14-J01B1 .. **Hypnotic**
1994
Previous code(s): C12-C07

C14-J01B2 .. **Sedative**
1994
Previous code(s): C12-C08

C14-J01B3 .. **Antipsychotic, neuroleptic, antischizophrenic**
1994
Previous code(s): C12-C10, C12-E02

C14-J01B4 .. **Tranquilliser, anxiolytic**
1994
Previous code(s): C12-C10

C14-J02 **Autonomic NS active general and other**
1994
Previous code(s): C12-E01

C14-J02A . **Parasympathetic stimulants, mimetics general and other***
1994
Previous code(s): C12-E05

C14-J02A1 .. **Cholinergic (acetyl choline potentiators)***
1994
Previous code(s): C12-E05

C14-J02A2 .. **Muscarinic***
1994
Previous code(s): C12-E05

C14-J02B **. Parasympathetic depressant, parasympatholytic general and other****
1994
Previous code(s): C12-E04

C14-J02B1 **.. Anticholinergic****
1994
Previous code(s): C12-E04

C14-J02B2 **.. Antimuscarinic****
1994
Previous code(s): C12-E04

C14-J02C **. Sympathetic stimulants general and other****
1994
Previous code(s): C12-E07

C14-J02C1 **.. Adrenergic, adrenaline potentiator (alpha and beta)***
1994
Previous code(s): C12-E07

C14-J02C2 **.. Dopaminergic***
1994
Previous code(s): C12-E07

C14-J02D **. Sympathetic depressants, sympatholytic general and other****
1994
Previous code(s): C12-E06

C14-J02D1 **.. Alpha-adrenergic blocker****
1994
Previous code(s): C12-E06A

C14-J02D2 **.. Beta-adrenergic blocker****
1994
Previous code(s): C12-E06B

C14-J02D3 **.. Antidopaminergic***
1994
Previous code(s): C12-E06

C14-J03 **Serotoninergic***
1994
Previous code(s): C12-G04

C14-J04 **Antiserotoninergic****
1994
Previous code(s): C12-G01

C14-J05 **Muscular active general and other (inotropic)**
1994
Previous code(s): C12-E02

C14-J05A **. Muscle relaxant (negatively inotropic)**
1994
Previous code(s): C12-E02

C14-J05B **. Mydriatic/myopic/hyperopic**
1994
Previous code(s): C12-E03

C14-J05C **. Muscle contractant (positively inotropic)**
1994
Previous code(s): C12-E02

C14-J05D **. Antispastic, antispasmodic, spasmolytic, spasm treatment**
1994
Previous code(s): C12-E02,C12-E04

C14-J05E **. Duchenne's muscular dystrophy treatment**
2002

C14-J06 **Convulsant**
1994
Previous code(s): C12-D10

C14-J07 **Anticonvulsant**
1994
Previous code(s): C12-D04

C14-K **DRUGS ACTING ON THE RESPIRATORY SYSTEM**
1994

C14-K01 **Respiratory active general and other**
Including anoxia, cystic fibrosis and bronchitis treatment.
1994
Previous code(s): C12-K06

C14-K01A **. Antiasthmatic**
1994
Previous code(s): C12-D02, C12-K02

C14-K01B **. Antitussive**
1994
Previous code(s): C12-K01

C14-K01C **. Bronchoconstrictor**
1994
Previous code(s): C12-K06

C14-K01D **. Bronchodilator**
1994
Previous code(s): C12-K02

C14-K01E **. Decongestant, expectorant, mucolytic**
From 2006, the scope of this code has been extended to cover decongestants in addition to expectorants and mucolytics.
1994
Previous code(s): C12-K05

C14-K01F **. Adult respiratory distress syndrome (ARDS)**
2002

C14-L **AGONISTS/MIMETICS AND ANTAGONISTS/INHIBITORS NOT COVERED ELSEWHERE**
The codes in this section are also used for receptor agonists/mimetics and receptor antagonists/mimetics, e.g. histamine receptor agonist is coded C14-L05.
1994

C14-L01 **Agonist/mimetic general and other**
1994

C14-L01A . **Enzyme agonist/mimetic**
2005

C14-L01A1 .. **Oxidoreductase agonist**
2007

C14-L01A2 .. **Transferase agonist**
2007

C14-L01A3 .. **Hydrolase agonist**
2007

C14-L01A4 .. **Lyase agonist**
2007

C14-L01A5 .. **Isomerase agonist**
2007

C14-L01A6 .. **Synthetase agonist**
2007

C14-L01B . **Cannabinoid agonist**
2006

C14-L01C . **PPAR agonist**
Peroxisome proliferator-activated receptor agonist.
2006

C14-L01D . **Nitric oxide agonist**
2007

C14-L02 **Angiotensin agonist/mimetic**
N.B. Angiotensin antagonists/inhibitors are coded C14-F02B1.
1994

C14-L03 **Interleukin agonist/mimetic**
1994

C14-L04 **Prostaglandin, leukotriene, thromboxane agonist/mimetic**
1994

C14-L05 **Histaminergic, histamine agonist/mimetic**
1994

C14-L06 **Antagonist, inhibitor, antimetabolite general and other**
1994
Previous code(s): C12-G01

C14-L06B . **Cannabinoid antagonist**
2006

C14-L06C . **PPAR antagonist**
Peroxisome proliferator-activated receptor antagonist.
2006

C14-L06D . **Nitric oxide antagonist**
2007

C14-L07 **Interleukin antagonist/inhibitor**
1994
Previous code(s): C12-G01

C14-L08 **Prostaglandin, leukotriene, thromboxane antagonist/inhibitor**
1994
Previous code(s): C12-G01

C14-L09 **Histamine antagonist/inhibitor general and other**
1994
Previous code(s): C12-D06

C14-L10 **H1 antagonist/inhibitor**
1994
Previous code(s): C12-D06B

C14-L11 **H2 antagonist/inhibitor**
1994
Previous code(s): C12-D06A

C14-L12 **Proton pump inhibitors**
2006
Previous code(s): C14-L06

C14-M **ANTIDOTES**
1994
Previous code(s): C12-J05

C14-M01 **Antidote general and other**
To be searched for treating chronic and habitual conditions: treating acute intoxication is searched under C14-M03.
1994
Previous code(s): C12-J05

C14-M01A . **Alcoholism treatment**
1994-2006
Previous code(s): C12-J05A

C14-M01B . **Antismoking**
1994-2006
Previous code(s): C12-J05B

C14-M01C . **Antidrug addiction**
1994-2006
Previous code(s): C12-J05

C14-M01D . **Antiheavy metal poisoning**
1994
Previous code(s): C12-J05C

C14-M01E . **Pesticide/herbicide antidote**
Includes herbicide safeners prior to 2009.
1994
Previous code(s): C12-J05D

C14-M01F . **Protecting plants from poisons**
1994
Previous code(s): C12-J05E

C14-M02 **Agrochemical antidote general**
2006

C14-M02A . **Chemoprotectant**
2006

C14-M02B . **Radioprotectant**
2006

C14-M03 **Recreational drug antidote general and unspecified**
To be searched for treating acute intoxication, treating chronic conditions is searched under C14-M01.
2016

C14-M03A **. Sobering agent for acute alcohol intoxication**
2016

C14-M03B **. Antidote for acute recreational drug intoxication other than alcohol**
2016

C14-N **ORGANS**
1994

C14-N01 **Bone disorder treatment, osteoporosis**
1994
Previous code(s): C12-J08

C14-N01A **. Osteoporosis**
2005

C14-N01B **. Fractures, disorders of healing and osteogenesis**
2005

C14-N02 **Ear disorder treatment**
1994
Previous code(s): C12-L04

C14-N02A **. Balance related disorder and vestibular disorder**
2008

C14-N03 **Eye disorder treatment**
1994
Previous code(s): C12-L04

C14-N03A **. Glaucoma**
2005

C14-N04 **Nose disorder treatment**
1994
Previous code(s): C12-L04

C14-N05 **Mouth/throat disorder treatment**
1994
Previous code(s): C12-L04

C14-N05A **. Mouth disorder**
E.g. cold sores and xerostomia (chronic dry mouth).
2005

C14-N05B **. Throat disorder**
Covers throat disorders, but excludes disorders of the esophagus.
2005

C14-N06 **Dental general and other**
1994
Previous code(s): C12-L03

C14-N06A **. Anticaries/antiplaque**
1994
Previous code(s): C12-A01, C12-L03

C14-N06B **. Periodontal**
1994
Previous code(s): C12-L03, C12-L04

C14-N07 **Urogenital/anorectal disease treatment general and other**
1994
Previous code(s): C12-A05, C12-D07, C12-G03, C12-G04

C14-N07A **. Prostate**
1994
Previous code(s): C12-G03, C12-G04

C14-N07B **. Cystitis**
1994
Previous code(s): C12-D07

C14-N07C **. Venereal**
1994
Previous code(s): C12-A05

C14-N07D **. Incontinence treatment**
1994
Previous code(s): C12-G03

C14-N08 **Diuretic**
1994
Previous code(s): C12-G03

C14-N09 **Antidiuretic**
1994
Previous code(s): C12-G03

C14-N10 **Kidney**
1994
Previous code(s): C12-G03

C14-N11 **Thyroid**
1994
Previous code(s): C12-G06

C14-N12 **Liver**
1994
Previous code(s): C12-G02

C14-N13 **Pancreas**
1994
Previous code(s): C12-G02

C14-N14 **Uterus**
Premenstrual syndrome and dysmenorrhea are covered here but labour inducing drugs are coded with abortifacients under C14-P01B.
1994
Previous code(s): C12-E09

C14-N15 **Spleen**
1994
Previous code(s): C12-G02

C14-N16 **Brain and spinal cord**
Including meningitis, encephalitis, stroke treatment.
1994
Previous code(s): C12-C10, C12-E01

C14-N16A **. Bovine spongiform encephalopathy (BSE, "mad cow disease")**
2002

C14-N16B **. Creutzfeld Jakob disease (CJD)**
2002

C14-N16C **. Kuru**
2005

C14-N16D **. Scrapie**
A fatal degenerative disease affecting the CNS of sheep and goats.
2005

C14-N17 **Skin treatment general and other**
Fungal skin diseases are coded under C14-A04.
1994
Previous code(s): C12-A07

C14-N17A **. Burn**
1994
Previous code(s): C12-A07

C14-N17B **. Wound other (physical trauma)**
1994
Previous code(s): C12-A07

C14-N17C **. Psoriasis, dermatitis**
1994
Previous code(s): C12-A07

C14-N17D **. Acne**
1994
Previous code(s): C12-A07

C14-N17E **. Dandruff and seborrhea**
2005

C14-N17F **. Antiscarring**
2005

C14-N17G **. Pruritis**
2008

C14-N17H **. Dermal ulcers**
Also includes cold sores, which are additionally coded with C14-A02A3.
2019

C14-N18 **Mammary gland**
Including mastitis.
2002

C14-N19 **Nail disease treatment**
Fungal nail diseases also search under C14-A04.
2020

C14-P **DRUGS ACTING ON THE REPRODUCTIVE SYSTEM**
1994

C14-P01 **Contraceptive general and other**
1994
Previous code(s): C12-K03

C14-P01A **. Male, spermicide**
1994
Previous code(s): C12-K03

C14-P01B **. Female, abortifacient, antiovulatory**
1994
Previous code(s): C12-K03

C14-P02 **Infertility treatment**
1994

C14-P03 **Antiabortive**
1994
Previous code(s): C12-E09

C14-P04 **Sexual dysfunction**
Sexual dysfunction general.
2006

C14-P04A **. Male sexual dysfunction**
2006

C14-P04B **. Female sexual dysfunction**
2006

C14-P05 **Menopause/andropause and related symptoms**
To be searched for general references to menopause or andropause where precise hormones affected are not specified. Also may be searched in conjunction with other C14 codes where a condition is specifically attributed to menopause or andropause in the original document e.g. hot flashes.
2016

C14-R **COSMETICS**
1994
Previous code(s): C12-L02

C14-R01 **Cosmetic general and other**
1994
Previous code(s): C12-L02

C14-R02 **Hair preparation**
Includes formulations for fur.
1994
Previous code(s): C12-L05

C14-R03 **Antiperspirant**
1994
Previous code(s): C12-L01

C14-R04 **Perfume**
1994
Previous code(s): C12-L07

C14-R05 **Sunscreen agent**
1994
Previous code(s): C12-L08

C14-S **MISCELLANEOUS ACTIVITY TERMS**
1994

C14-S01 **Multiple sclerosis treatment, demyelinating diseases**
1994
Previous code(s): C12-E01

C14-S02 **Dwarfism treatment**
1994
Previous code(s): C12-G04

C14-S03 **Gene therapy general**
1994

C14-S03A **. Gene therapy**
2002

C14-S03B **. Antisense therapy**
2002

C14-S03C **. RNA interference**
2005

C14-S03D **. shRNA interference**
2008

C14-S04 **Diabetes**
This code is used when a drug targets the symptoms and associated disorders. Hypoglycemia is coded C14-F09.
1994
Previous code(s): C12-H05

C14-S04A **. Type II diabetes**
Also known as adult onset diabetes or non-insulin dependent diabetes.
2005

C14-S05 **Shock treatment general (excluding anaphylactic)**
Anaphylactic shock is coded C14-G02B.
1994
Previous code(s): C12-A07

C14-S06 **Toxic (septic) shock**
1994
Previous code(s): C12-A01, C12-A06

C14-S07 **Traumatic shock**
1994
Previous code(s): C12-C10

C14-S08 **Antioxidant/free radical scavenger**
1994

C14-S09 **Synergist**
1994
Previous code(s): C12-C09

C14-S11 **Vaccine general**
1994
Previous code(s): C02-V02

C14-S11A **. Antiviral vaccine**
1994
Previous code(s): C02-V02

C14-S11B **. Other antimicrobial vaccine**
E.g. antibacterial.
1994
Previous code(s): C02-V02

C14-S11B1 **.. Antibacterial vaccine**
2005

C14-S11B2 **.. Antiprotozoal vaccine**
2005

C14-S11B3 **.. Antiparasitic vaccine**
2005

C14-S11C **. Anticancer vaccine**
1994
Previous code(s): C02-V02

C14-S11D **. Vaccine type**
2005

C14-S11D1 **.. Whole-killed (inactive) vaccine**
2005

C14-S11D2 **.. Live-attenuated (weakened) vaccine**
2005

C14-S11D3 **.. Synthetic/genetically engineered vaccine**
2005

C14-S11E **. Therapeutic vaccine other**
Vaccine other than antimicrobial or anticancer e.g. immunocontraceptive or antiasthma vaccine. Unspecified vaccines should be searched under the general code C14-S11.
2015

C14-S11F **. Vaccine adjuvants general**
This code is also searched when three or more subcodes would be applied.
2023

C14-S11F1 **.. Aluminum adjuvants**
2023

C14-S11F2 **.. Freund's adjuvants**
2023

C14-S11F3 **.. Squalene based adjuvants**
2023

C14-S11F4 **.. Vitamin E/tocopherol based adjuvants**
2023

C14-S11F5 **.. Saponin based adjuvants**
2023

C14-S11F6 **.. Other adjuvants**
2023

C14-S12 **Veterinary**
1994
Previous code(s): C12-L09

C14-S13 **Metabolic disorders**
Includes enzyme deficiencies and conditions arising from such.
2005

C14-S13A **. Acidosis**
2005

C14-S14 **Joint disorders general**
Includes conditions affecting tendons and bursa.
2005

C14-S14A **. Cartilage and connective tissue disorders**
2009

C14-S14B **. Soft tissue disorders**
2009

C14-S15 **Broad formulation**
Patent is concerned with the formulation type rather than the drugs contained in it.
2005

C14-S16 **Many diseases treated**
More than 15 diseases are said to be treated. Specific codes for the individual disease are still included.
2005

C14-S17 **Agricultural activity**
2005

C14-S18 **Drug combination**
Used when specific combination of drugs are claimed.
2006

C14-S20 **Genetic disorder**
2006

C14-S20A **. Chromosomal abnormality disorder**
2006

C14-S20B **. Fabry disease**
2015

C14-S20C **. Hunter syndrome**
2015

C14-S21 **Cell therapy**
2006

C14-S21A **. Stem cell therapy**
2023

C14-S21B **. CAR T-cell therapy**
2023

C14-S22 **Prophylaxis**
Used only when a compound or formulation is solely for prophylaxis or prevention of a disorder. Applied only for veterinary patents in C.
2009

C14-S23 **Unspecified activity**
Applied to documents when a agrochemical formulation/ substance with agrochemical activity is claimed, but no specific disorders are mentioned as being treated, i.e., when no other activity codes can be applied. E.g. disorders of ying and yang.
2009

C14-S25 **Chemotherapy**
2010

C14-S26 **Radiotherapy**
2010

C14-S27 **Electromagnetic therapy**
Includes ultrasound, sonodynamic therapy and phototherapy using high energy photons. Also includes electrical stimulation.
2010

C14-S28 **Prodrugs**
Applied only when the prodrug is the novelty of the invention.
2012

C14-T **FERTILISERS/SOIL IMPROVING GENERAL**
This code is also applied when three or more of C14-T01 to C14-T05 would be applicable.
1994
Previous code(s): C12-N09,C12-N10

C14-T01 **Soil improving (other then nutrients) Synthetic growth media**
Includes bioremediation of soil.
1994
Previous code(s): C12-N08

C14-T01A **. Synthetic growth medium**
Can be used in conjunction with other C14 codes for general agricultural activity.
2005

C14-T01B **. Erosion inhibition of soil**
2005

C14-T01C **. Frost protection of soil**
2005

C14-T01D **. Nitrification inhibitor**
2005

C14-T02 **Moisture conservation (mulches)**
1994
Previous code(s): C12-P10

C14-T03 **Soil nutrients (inorganic)**
1994
Previous code(s): C12-N09

C14-T04 **Soil nutrients (others)**
1994
Previous code(s): C12-N10

C14-T05 **Trace element fertilisers**
2005

C14-U **PLANT GROWTH REGULANTS/PROCTECTANTS**
1994

C14-U01 **Plant growth regulants (general), phytohormones**
1994
Previous code(s): C12-P01

C14-U01A **. Defoliants, desiccants, chemical mowing**
1994
Previous code(s): C12-P02

C14-U01B **. Fruit drops and set, thinning of fruit**
1994
Previous code(s): C12-P03

C14-U01C **. Growth stimulants, sprouting and germination stimulants**
1994
Previous code(s): C12-P04

C14-U01D **. Rooting compounds (rhizogenes)**
1994
Previous code(s): C12-P08

C14-U01E **. Sprouting inhibitors, seed germination inhibitors, growth inhibitors**
1994
Previous code(s): C12-P09

C14-U01F **. Inducing flowering in plants**
2006

C14-U01G **. Conferring colour improvement to plants**
Includes improving chlorophyll content, amino acid content, sugar content, etc. in plants and their parts.
2019

C14-U02 **Soil fumigants, seed protectants and sterilants**
Not for plant protectants post-2014, these should be searched according to the relevant pathogen(s) in C14.
1994
Previous code(s): C12-N07

C14-U03 **Conferring herbicide resistance to plants**
2006

C14-U04 **Conferring pest resistance to plants**
Conferring pest resistance (e.g. fungi, insects) to plants.
2006

C14-U05 **Conferring stress tolerance to plants**
Conferring stress tolerance (e.g. drought, heat) to plants.
2006

C14-V **HERBICIDES**
1994

C14-V **Herbicide (general)**
Used only when the herbicide is not specified as being total or selective.
2015

C14-V01 **Herbicide (total)**
2015
Previous code(s): C12-P05

C14-V02 **Herbicide (selective) (general and others)**
For a specific selective herbicide the code for the crop-type protected applies e.g. C14-V02B applies for selectively killing weeds in rice fields.
1994
Previous code(s): C12-P06

C14-V02A **. Aromatic crops**
Includes herbs.
1994
Previous code(s): C12-P06

C14-V02B **. Cereal crop**
Includes rice.
1994
Previous code(s): C12-P06

C14-V02C **. Fruit crop**
1994
Previous code(s): C12-P06

C14-V02D **. Oil crop**
Includes nuts, sunflower, rape.
1994
Previous code(s): C12-P06

C14-V02E **. Ornamental crop**
1994
Previous code(s): C12-P06

C14-V02F **. Vegetable crop**
1994
Previous code(s): C12-P06

C14-V03 **Post-emergence, pre-emergence for total herbicide**
Used only when the herbicide is stated to be both post- and pre-emergent in action.
1994
Previous code(s): C12-P06

C14-V03A **. Post-emergence**
1994
Previous code(s): C12-P06

C14-V03B **. Pre-emergence**
1994
Previous code(s): C12-P06

C14-V04 **Herbicide safener**
2009
Previous code(s): C14-M01E

C14-V00X **. Combating resistant weeds**
This code is applied in conjunction with one or more codes from section C14-V.
2013

C14-W **INDUSTRIAL**
Covers industrial applications of compounds/compositions e.g. biocides used in industrial cleaning compositions. This code applies in addition to any other property codes.
1994

C14-X **DOMESTIC**
Covers domestic applications of compounds/compositions e.g. fungicides used in decorative materials. This code applies in addition to any other property codes.
1994

C14-Y **GREEN TECHNOLOGY**
Used when processes/productions are kinder to the environment. Also includes environmentally-friendly apparatus.
2006

C14-Z **GREEN FORMULATION**
Used when compositions are kinder to the environment. Includes biodegradable.
2012

C15 VITAMINS (from 201101)

Note that for structurally modified vitamins the suffix A is appended to the relevant parent code. The following compounds, although having vitamin activity, are indexed under the appropriate chemical classification only: nicotinic acid (C07-D04+), pantothenic acid (C10-C04D), folic acid (C06-D09), choline (C10-A22), inositol (C10-E04A), biotin (C06-F03), p-amino-benzoic acid (C10-B02A), linoleic acid (C10-C04E2) and other unsaturated acids.

C15-A **A VITAMINS**

C15-A00 **Vitamin A and carotenoids**
previously coded C03-A
2011

C15-A00A **. Modified vitamin A and carotenoids**
2011

C15-B **B VITAMINS**
2011

C15-B00 **B vitamins general**
2011

C15-B00A **. Modified B vitamins general**
2011

C15-B01 **Vitamin B1 (thiamine)**
previously coded C03-B
2011

C15-B01A **. Modified vitamin B1 (thiamine)**
2011

C15-B02 **Vitamin B2 (riboflavin)**
previously coded C03-C
2011

C15-B02A **. Modified vitamin B2 (riboflavin)**
2011

C15-B06 **Vitamin B6 (pyridoxine)**
previously coded C03-D
2011

C15-B06A **. Modified vitamin B6 (pyridoxine)**
2011

C15-B12 **Vitamin B12 and cobalamine**
previously coded C03-E
2011

C15-B12A **. Modified vitamin B12 and cobalamine**
2011

C15-C **C VITAMINS**

C15-C00 **Vitamins C (ascorbic acid)**
previously coded C03-F
2011

C15-C00A . **Modified vitamin C (ascorbic acid)**
2011

C15-D **D VITAMINS**

C15-D00 **D vitamins general**
previously coded C03-G
2011

C15-D00A . **Modified D vitamins general**
2011

C15-D01 **Vitamin D1**
2011

C15-D01A . **Modified vitamin D1**
2011

C15-D02 **Vitamin D2**
2011

C15-D02A . **Modified vitamin D2**
2011

C15-D03 **Vitamin D3**
2011

C15-D03A . **Modified vitamin D3**
2011

C15-D04 **Vitamin D4**
2020

C15-D04A . **Modified vitamin D4**
2020

C15-D05 **Vitamin D5**
2020

C15-D05A . **Modified vitamin D5**
2020

C15-E **E VITAMINS**

C15-E00 **Vitamin E, tocopherols, tocotrienols**
Includes tocodienols and tocotrienols.
previously coded C03-H
2011

C15-E00A . **Modified vitamin E and tocopherols**
2011

C15-K **K VITAMINS**

C15-K00 **K vitamins general**
previously coded C03-J
2011

C15-K00A . **Modified K vitamins general**
2011

C15-K01 **Vitamin K1**
2011

C15-K01A . **Modified vitamin K1**
2011

C15-K02 **Vitamin K2**
2011

C15-K02A . **Modified vitamin K2**
2011

C15-K03 **Vitamin K3**
2016

C15-K03A . **Modified vitamin K3**
2016

C15-K04 **Vitamin K4**
2016

C15-K04A . **Modified vitamin K4**
2016

C15-K05 **Vitamin K5**
2011

C15-K05A . **Modified vitamin K5**
2011

C15-K06 **Vitamin K6**
2017

C15-K06A . **Modified vitamin K6**
2017

C15-K07 **Vitamin K7**
2020

C15-K07A . **Modified vitamin K7**
2020

C15-P **P VITAMINS**

C15-P00 **Vitamin P**
previously coded C03-K
2011

C15-P00A . **Modified vitamin P**
2011

C15-X **PROVITAMINS**
2011

C15-Z **GENERAL OR UNSPECIFIED VITAMINS**
previously coded C03-L
2011

D:
FOOD, FERMENTATION, DISINFECTANTS, DETERGENTS

D01 Baking, Edible Doughs
D02 Processing Meat, Poultry, Fish
D03 Foodstuffs and Treatment
D04 Treating Water, Waste Water, and Sewage
D05 Fermentation Industry
D06 Sugar and Starch Industry
D07 Skins, Hides, Pelts, Leather, Tobacco
D08 Cosmetics, Dental, Toilet Preparations
D09 Sterilising and Disinfecting, Bandages and Dressings
D10 Animal and Vegetable Oils
D11 Detergents, Soap, Glycerol

D: FOOD, FERMENTATION, DISINFECTANTS, DETERGENTS

In addition to coding a general process (e.g. for dehydrating food in D03-K09), a preferred use is also coded (e.g. especially for production of dried milk, D03-B07).

Normally only main inventive features are coded, e.g. machine for filling pies would be D01-A only - not also under any of a wide range of meat, fruit etc. fillings. However, production of meat filling for pies or sausages would only be coded under the filling.

D01 BAKING, EDIBLE DOUGHS

D01-A **HANDLING DOUGH AND BAKED ARTICLES**

D01-A01 **Bakery ovens**
1972

D01-A02 **Uncooked dough cutting, shaping, dispensing equipment**
1972

D01-A03 **Equipment for transporting batter, dough, bakery products**
1972

D01-A04 **Containers for dough, bakery products**
Including raising boxes.
1972

D01-A05 **Equipment for mixing, rolling dough, batter kneading**
1972

D01-A06 **Treatment of bakery products after cooking**
e.g. cutting, filling.
1972

D01-A **General and others**

D01-B **BAKERY PRODUCTS, FLOUR, DOUGH**

D01-B01 **Flour, additives for flour and dough**
Including fats.

D01-B02 **Bakery products general**
For bakery products containing meat also search D02-A03.

D01-B02A **. Bread**
Including bread crumbs, fried bread and sandwiches. For the product to be considered as bread it must contain yeast as a leavening agent.
1986

D01-B02B **. Cake**
This must have a leavening agent other than yeast such as baking powder or have air or gas bubbles introduced mechanically such as by vigorous whisking (excluding rice cake).
1986

D01-B02C **. Biscuits, crackers, "cookies", rice crackers, unleavened bread**
1986

D01-B02D **. Pizza bases, pastry products, pastry cases**
e.g. for meringues.
1986

D01-B02E **. Noodles, pasta, spaghetti, vermicelli, macaroni**
1986

D01-B02F **. Batter products, pancakes, waffles, fried batter coatings, artificial chips from dough**
For batter coatings D03-H01S is also searchable.
1986

D01-B **General and others**

D02 PROCESSING MEAT, POULTRY, FISH

D02-A **PROCESSING MEAT OR FISH**

D02-A01 **Processing whole meat, hams and poultry**
1971

D02-A02 **Processing whole fish**
e.g. degutting.
1971

D02-A03 **Meat, poultry or fish products, general**
For bakery products containing meat also search D01-B02:
1971

D02-A03A **. Fish paste, fish meal, fish flakes, fish roe (real or artificial), fish extracts**
For fish extracts used as flavouring also search D03-H01C.
1986

D02-A03B **. Minced meat, meat paste, chopped meat**
Including chicken, turkey, lamb, beef, pork, etc. but excluding sausages.
1986

D02-A03C **. Sausages, processing meat for sausages, but excluding skins**
1986

D02-A03D **. Sausage skins and devices for filling skins**
1986

D02-A03E **. Artificial meat, excluding sausages**
1986

D02-A **General and others**

D03 FOODSTUFFS AND TREATMENT

D03-A **PRESERVATION**

D03-A01 **Meat or sausages**

D03-A02 **Fish, fish roe, sea food and products**

D03-A03 **Eggs and products**
Including turtle eggs.

D03-A04 **Vegetables, fruit or mushrooms**

D03-A05 **Edible seeds**
e.g. cereals and nuts.

D03-A **General and others**

D03-B **MILK AND MILK PRODUCTS**

D03-B01 **Production of curds in milk**
1972

D03-B02 **Separation of curds and whey**
1972

D03-B03 **Moulding cheese**
1972

D03-B04 **Additives for cheese**
1972

D03-B05 **Transporting cheese and packing**
1972

D03-B06 **Cheese (other than above)**
Including stillage, maturing and bean curd (tofu).
1972

D03-B07 **Milk concentrates**
e.g. powder
1972

D03-B08 **Milk additives**
1972

D03-B09 **Testing milk**
1972

D03-B10 **Transporting milk; carriers for milk**
1972

D03-B11 **Synthetic milk**
Including bean milk.
1972

D03-B12 **Butter**
Excluding butter substitutes, see D03-C.
1994
Previous code(s): D03-B

D03-B13 **Cream**
Includes artificial cream.
1994
Previous code(s): D03-B

D03-B14 **Yoghurt**
1994
Previous code(s): D03-B

D03-B15 **Milk general**
2011

D03-B **General and others**

D03-C **BUTTER SUBSTITUTES, EDIBLE OILS, FATS**

D03-C **General**

D03-C01 **Cooking and edible oils (liquid)**
1994
Previous code(s): D03-C

D03-C02 **Margarine, spreads and cooking fats (solid)**
1994
Previous code(s): D03-C

D03-D **COFFEE, TEA AND SUBSTITUTES**

D03-D **Coffee, tea and substitutes, general**

D03-D01 **Coffee general**
1986

D03-D01A **. Packaging**
Including coffee bags.
1986

D03-D01B **. Extraction**
Including decaffeination, concentration, freeze drying and freeze dried coffee.
1986

D03-D01C **. Grinding, cutting**
1986

D03-D01D **. Steaming, roasting, drying**
Excludes extraction D03-D01B.
1986

D03-D02 **Tea general**
1986

D03-D02A **. Packaging**
Including tea bags.
1986

D03-D02B **. Extraction**
Including decaffeination, concentration, freeze drying.
1986

D03-D02C **. Grinding, cutting**
1986

D03-D02D **. Steaming, drying, fermenting, roasting**
Excludes extraction D03-D02B.
1986

D03-D03 **Artificial tea or coffee or beverages such as herbal tea**
Excluding D03-D01: and D03-D02: search also D03-H01G.
1986

D03-D03A **. Artificial coffee**
2011

D03-D03B **. Artificial tea**
2011

D03-E **COCOA AND CONFECTIONERY**

D03-E01 **Transporting confectionery**
1972

D03-E02 **Coating confectionery and ice cream**
1972

D03-E03 **Shaping confectionery and ice cream**
1972

D03-E04 **Packing confectionery and ice cream**
1972

D03-E05 **Cooking and mixing ingredients for confectionery**
1972

D03-E06 **Dispenser for confectionery**
Including filling.
1972

D03-E07 **Chocolate and cocoa products**
1972

D03-E08 **Ice cream and similar frozen products**
1972

D03-E09 **Chewing gum**
1994
Previous code(s): D03-E

D03-E10 **Candy general**
2002

D03-E10A **. Hard candy**
2002

D03-E10A1 **.. Chocolate**
2002

D03-E10A2 **.. Non-chocolate**
2002

D03-E10B **. Chewy candy**
2002

D03-E10B1 **.. Chocolate**
2002

D03-E10B2 **.. Non-chocolate**
2002

D03-E11 **General**
2002

D03-E **General and others**
2002

D03-F **PROTEINS, PHOSPHATIDES**

D03-F01 **Protein recovery - from other sources**
1972

D03-F02 **Protein recovery - from soya beans**
1972

D03-F03 **Protein recovery - from micro-organisms**
1972

D03-F04 **Protein recovery - from animal or fish waste**
1972

D03-F05 **Shaping of protein (threads and films)**
1972

D03-F06 **Protein compositions**
1972

D03-F07 **Phosphatides**
1972

D03-F **General and others**

D03-G **ANIMAL FEEDS**

D03-G01 **Fodder additives**
1971

D03-G02 **From microorganisms**
e.g. yeasts.
1972

D03-G03 **From animals**
e.g. offal, excrement.
1972

D03-G04 **From plants**
e.g. beet residues.
1972

D03-G05 **From fish; insects**
e.g. stick water.
1972

D03-G06 **Special shape animal feeds**
Including synthetic dog bones.
1972

D03-G **General and others**

D03-H **FOODSTUFFS, GENERAL AND PRESERVATION**

D03-H **Foodstuffs not provided for, general**

D03-H01 **FOODSTUFF GENERAL**

D03-H01 **Foodstuffs; non-alcoholic beverages and preparations not provided for elsewhere, general**

D03-H01A . **Sweetening agents**
Not additionally searchable under D03-H01T.
1972

D03-H01B . **Chemical flavouring agents**
See also D03-H01D.
1972

D03-H01B1 .. **Taste masking**
2002

D03-H01B2 .. **Taste enhancing**
2002

D03-H01C . **Natural flavouring agents**
e.g. natural extracts (see also D03-H01D).
1972

D03-H01D . **Flavouring agents of special form**
1972

D03-H01E . **Food colourants (general)**
1972

D03-H01E1 .. **Natural food colorant**
2007
Previous code(s): D03-H01E

D03-H01E2 .. **Synthetic food colorant**
2007
Previous code(s): D03-H01E

D03-H01F . **Carbonated non-alcoholic beverages**
1972

D03-H01G . **Non-alcoholic beverages**
Except D03-H01F.
1972

D03-H01G1 .. **Fruit Juices**
2011

D03-H01H . **Fluid foods**
e.g. sauces, soups, mayonnaise, emulsions except D03-H01F and D03-H01G.
1972

D03-H01J . **Gelled food products, thickeners**
From 2007, jam, marmalade and other conserve are coded under D03-H01V.
1972

D03-H01K . **Foods with special shape**
Except D03-H01J.
1972

D03-H01L . **Dehydrated or concentrated foods**
Includes instant foods.
1972

D03-H01M . **Partially cooked foods**
Except D03-H01L.
1972

D03-H01N . **Emulsifiers for food**
1972

D03-H01P . **Antioxidants for food**
1972

D03-H01Q . **Stabilisers for food, humectants**
Except D03-H01P,N,R.
1972

D03-H01R **. Binders for food**
1972

D03-H01S **. Coatings for food; coated food products**
Except D03-H01R.
1972

D03-H01T **. Low calorie, health and dietary foods, general**
Except D03-H01A.
1972

D03-H01T1 **.. Dietary fibre (bran/roughage etc.)**
1994
Previous code(s): D03-H01T

D03-H01T2 **.. Other health**
1994
Previous code(s): D03-H01T

D03-H01T2A **... Probiotics/prebiotics**
2006

D03-H01T2B **... Others, not pro/prebiotics or vitamin preparations**
2006

D03-H01T2C **... Vitamin preparations**
2011

D03-H01T3 **.. Low calorie**
1994
Previous code(s): D03-H01T

D03-H01T3A **... Low fat**
2005

D03-H01T3B **... Low carbohydrate**
2005

D03-H01T4 **.. High calorie foodstuff; energy boosters**
e.g. energy bars.
2005

D03-H01T5 **.. Special dietary requirement foods**
e.g. diabetic, gluten free.
2006
Previous code(s): D03-H01T

D03-H01U **. Fried foodstuff**
2005

D03-H01V **. Jam/marmalade/other conserve**
2007
Previous code(s): D03-H01J

D03-H02 **PRESERVING FOODSTUFFS**

D03-H02 **Preserving**
e.g. pasteurising, sterilising, freezing, refrigeration, drying, freeze drying. For specific food, search under appropriate D01-A: to D03-H01: code only. For dehydrated food see also D03-H01L.

D03-H02A **. By freezing, cooling or refrigeration**
1986

D03-H02B **. By heat sterilisation or drying**
1986

D03-H02B1 **.. By heat sterilisation**
E.g. pasteurisation. Add D03-H02C for heating by irradiation e.g. with microwave.
2011

D03-H02B2 **.. By drying**
2011

D03-H02B2A **... Drying with heating**
Add D03-H02C for heating by irradiation e.g. with microwave.
2011

D03-H02B2B **... Drying without heating**
E.g. by evaporation at ambient temperature or sun drying.
2011

D03-H02C **. By irradiation**
1986

D03-H02D **. By adding salt or acid (pickling) or sugar**
1986

D03-H02E **. By other additives**
Except antioxidants see D03-H01P.
1986

D03-H02F **. By sterile packaging**
e.g. canning or sealed bags. (Search also D03-K and other D03-H02: codes if applicable e.g. for heat sterilisation with canning, search D03-H02F and D03-H02B).
1986

D03-J **FOODSTUFF MACHINERY FOR**

D03-J01 **Treating grain**
1972

D03-J02 **Treating nuts**
Including peanuts and coffee beans.
1972

D03-J03 **Removing stones and pips from fruit**
1972

D03-J04 **Peeling fruit**
Including pumpkins, melons, marrows and zucchini (courgettes).
1972

D03-J05 **Washing fruit**
Including pumpkins, melons, marrows and zucchini (courgettes).
1972

D03-J06 **Cutting or crushing fruit**
Including pumpkins, melons, marrows and zucchini (courgettes).
1972

D03-J07 **Peeling vegetables**
Including peas, beans, mushrooms and cauliflowers.
1972

D03-J08 **Washing vegetables**
Including peas, beans, mushrooms and cauliflowers.
1972

D03-J09 **Cutting or crushing vegetables**
Including "topping and tailing", coring and pulping; e.g. of peas, beans, mushrooms and cauliflowers..
1972

D03-J10 **Preparation of animal feeds**
1972

D03-J11 **Popcorn making**
2005

D03-J **General and others**
Includes "topping and tailing", coring and pulping.

D03-K **SHAPING OR WORKING OF FOODSTUFFS**

D03-K01 **Cooking and baking general, ovens**
Includes roasting.
1972

D03-K01A . **Microwave**
2013

D03-K01B . **Fryer**
2013

D03-K01C . **Grill**
2013

D03-K02 **Grading devices for food**
1972

D03-K03 **Testing and monitoring liquid food**
1972

D03-K04 **Testing and monitoring solid food**
1972

D03-K05 **Cutting devices for food**
1972

D03-K06 **Moulding of food**
e.g. extrusion.
1972

D03-K07 **Mixing or stirring food**
1972

D03-K08 **Transporting, packing and storage devices for food**
e.g. containers.
1972

D03-K08A . **Green packaging**
Biodegradable packaging/plastics, recyclable packaging, arrangements allowing use of smaller amount of materials in packaging etc.
2011

D03-K08B . **Food packaging materials**
2014

D03-K09 **Devices for concentrating or drying food**
1972

D03-K10 **Dispenser for foodstuff**
2005

D03-K11 **Labelling system for foodstuff**
2005

D03-K12 **Defrosting foodstuff**
2005

D03-K13 **Green food technology**
Includes non-waste or environmentally friendly food technology.
2011

D03-K14 **Food cooling device**
Device or system for cooling the interior of a food processing machine; a food cooling system.
2014

D03-K **General and others**

D03-L **RICE AND PRODUCTS**
1994

D03-L **Rice and products**
Excluding D01-B02C.
1994
Previous code(s): D03-H01

D03-M **EGG AND PRODUCTS**
1994

D03-M **Egg and products**
1994
Previous code(s): D03-H01

D03-N **VEGETABLE PRODUCTS**
Not to be used in conjunction with D03-A and/or D03-J.
2005

D03-P **FRUIT PRODUCTS**
Not to be used in conjunction with D03-A and/or D03-J.
2005

D03-Q	**NUT AND EDIBLE SEED PRODUCTS** Not to be used in conjunction with D03-A and/or D03-J. **2005**
D03-R	**CEREAL PRODUCTS** Not to be used in conjunction with D03-A and/or D03-J. **2005**
D03-S	**BABY FOOD ONLY** Used in conjunction with other codes in section D. **2007**

D04 TREATING WATER, WASTE WATER AND SEWAGE

D04-A	**TREATMENT OF THE WATER** see also D04-B: for impurities removed
D04-A	**Water treatment process general**
D04-A01	**Purification general**
D04-A01A	**. By distillation** **1972**
D04-A01B	**. By precipitation, sedimentation, flocculation** See D04-B09. **1972**
D04-A01C	**. By freezing, crystallisation** **1972**
D04-A01D	**. Membranes for reverse osmosis** **1972**
D04-A01E	**. Apparatus for reverse osmosis, membrane filtration and ultra-filtration** **1972**
D04-A01F	**. By other filtration processes, adsorption, active C** **1972**
D04-A01F1	**.. Other filtration process** **2005**
D04-A01F2	**.. Active C treatment** **2005**
D04-A01F3	**.. Other adsorption processes** **2005**
D04-A01G	**. By ion exchange** **1972**
D04-A01H	**. Measuring purity of water** **1972**
D04-A01J	**. Biological process** e.g. sewage treatment. Not used when D04-B10 codes are applied. **1986**
D04-A01K	**. By oxidation/aeration** **1986** *Previous code(s): D04-B08*
D04-A01K1	**.. Oxidation with ozone** **2005**
D04-A01K2	**.. Oxidation / aeration with other** **2005**
D04-A01L	**. By flotation** **1986** *Previous code(s): D04-B09*
D04-A01M	**. By electrochemical process** **1986**

D04-A01N . **By extraction**
1986

D04-A01P . **By other method**
Including other chemical, decanting.
1986

D04-A01P1 .. **Chemical method**
Includes adding polymers.
2005

D04-A01P2 .. **Physical method**
2005

D04-A01P2A ... **By irradiation**
2011

D04-A01Q . **Magnetic water treatment**
1994
Previous code(s): D04-A01P

D04-A02 **Sterilisation of water**
1972

D04-A03 **Scale prevention, deoxygenation and anti-corrosion general**
1972

D04-A03A . **Scale prevention**
1986

D04-A03B . **Deoxygenation and degassification of water**
1986

D04-A03C . **Anti-corrosion**
1986

D04-A04 **Physiological amelioration of potable water by specific additives**

D04-A05 **Containment of waste to prevent contamination of water**
e.g. (i) preventing herbicides from reaching water, (ii) enclosing waste in another material.
1994

D04-A06 **Apparatus for recycling waste water**
2007

D04-B **IMPURITY REMOVAL FROM WATER**
Prior to 198601 these codes are applied only to the removal of impurities from waste water, after 198601 they are applied to domestic or industrial waste water or natural water. Also search D04-A: for method of removal.

D04-B **Impurity removal from water general**

D04-B01 **Of sewage**
1971-1976

D04-B02 **Of aqueous industrial effluent, oil pollution**
1972-1976

D04-B03 **Removal of mineral oil, hydrocarbons, coal slurry**
1977

D04-B04 **Removal of natural products**
Including protein, starch, animal and vegetable fats and oils, natural animal, plant and fish material from power station inflow.
1977

D04-B05 **Removal of metals**
Including metal compounds, excluding alkali(ne earth) metal compounds.
1977

D04-B05A . **Removal of heavy metals**
Used for where the patent vaguely mentions removal of heavy metals or removal of 2nd, 3rd row transition metals, Lanthanides or Actinides.
2005

D04-B05B . **Removal of other metals**
2005

D04-B06 **Removal of specified organic materials, general and other**
1977

D04-B06A . **Removal of phenolic compounds**
1986

D04-B06B . **Removal of organic dyes, optical brighteners**
1986

D04-B06C . **Removal of surfactants**

D04-B06D . **Removal of polymers and polymer monomers**
1986

D04-B06E . **Removing halohydrocarbons from water**
1994
Previous code(s): D04-B06

D04-B07 **Removal of specified inorganic and radioactive materials, general and other**
1977

D04-B07A . **Removal of inorganic cyanides or (thio)cyanates**
1986

D04-B07B . **Removal of inorganic phosphorus compounds**
1986

D04-B07C . **Removal of inorganic nitrogen compounds**
Excluding urea and cyanides but including nitrates, ammonia and inorganic carbamates.
1986

D04-B07D **. Removal of inorganic sulphur compounds**
1986

D04-B07E **. Removal of inorganic fluorine compound**
1986

D04-B07F **. Desalination of brine or sea water**
1986

D04-B07G **. Demineralisation of water**
2012

D04-B08 **Oxidation/aeration of waste water**
From 198601 search D04-A01K.
1977-1985

D04-B09 **Sedimentation, addition of flocculants to waste water, flotation**
From 198601 search D04-A01B or D04-A01L.
1977-1985

D04-B10 **Sewage sludge from water**
Separation, solidification of sludge, treatment of sludge general.
1977

D04-B10A **. Dewatering sludge**
1986

D04-B10B **. Pyrolysis of sludge**
Excluding D04-B10A.
1986

D04-B11 **General sewage treatment**
From 198601 search D04-A:.
1977-1985

D04-C **GAS IMPREGNATED WATER E.G. WITH CARBON DIOXIDE**

D04-C **General**

D04-D **ENVIRONMENTALLY-FRIENDLY WATER PROCESSING**
2013

D05 FERMENTATION INDUSTRY

D05-A **INDUSTRIAL FERMENTATION PROCESSES GENERAL**

D05-A **General**

D05-A01 **Enzyme bound to carrier general**
1977

D05-A01A **. Carrier general**
1986

D05-A01A1 **.. Polysaccharide**
1986

D05-A01A2 **.. Polymer**
Excluding natural polymers.
1986

D05-A01A3 **.. Non-polymeric organic compound**
e.g. hapten.
1986

D05-A01A4 **.. Natural material other than above**
e.g. antibody.
1986

D05-A01A5 **.. Inorganic material**
e.g. glass, metal, silica, clay, mineral.
1986

D05-A01B **. Fixed enzyme general**
1986

D05-A01B1 **.. Oxidoreductase**
1986

D05-A01B2 **.. Transferase**
1986

D05-A01B3 **.. Hydrolase**
1986

D05-A01B4 **.. Lyase**
1986

D05-A01B5 **.. Isomerase**
1986

D05-A01B6 **.. Ligase (synthetase)**
1986

D05-A01B7 **.. Translocase**
Enzymes in class EC7.
2023

D05-A01C **. Process general**
1986

D05-A01C1 **.. Apparatus using fixed enzyme**
1986

D05-A01C2 **.. General methods of binding enzymes to carriers**
D05-A01C: codes are only applied if the scope of both the enzyme and the carrier are broad. Only the inventive feature is searchable. For example if a hydrolase is bound to any carrier, then only the code D05-A01B3 is searchable not D05-A01A.
1986

D05-A02 **Other enzyme process (non-fixed) general**
1977

D05-A02A **. Oxidoreductase**
1986

D05-A02B **. Transferase**
1986

D05-A02C **. Hydrolase**
1986

D05-A02D **. Lyase**
1986

D05-A02E **. Isomerase**
1986

D05-A02F **. Ligase (synthetase)**
1986

D05-A02G **. Translocase**
Enzymes in class EC7.
2023

D05-A03 **Fermentation apparatus general**
Excluding organic waste fermentation.
1977

D05-A03A **. Carriers for microorganisms, microorganisms bound to carriers**
Includes both devices and methods specifically using immobilised microorganisms.
1986

D05-A03B **. Automated fermentation vessels**
Excluding sewage treatment.
1986

D05-A03C **. Mixing devices for fermentation vessels, aeration of the medium**
Excluding sewage treatment. The recovery of microorganisms from the medium and preparation of the medium (e.g. comminuting waste for fermentation) is searched under D05-A04. Recovery of products is searched under D05-C.
1986

D05-A04 **Other fermentation processes general**
1977

D05-A04A **. Organic waste, town waste or sludge fermentation**
1986

D05-A04B **. Culture media and their preparation for industrial fermentation, comminuting waste for fermentation**
Aeration and mixing devices for media during fermentation - see D05-A03C.
1986

D05-A04C **. Cultivation of mushrooms, shiitake, Basidiomycetes etc.**
Includes both apparatus and methods used in any aspect of mushroom cultivation.
1986

D05-A04D **. Fermented foods and fermented non-alcoholic drinks**
Includes both apparatus and methods used in any aspect of fermented foods and fermented non-alcoholic drinks.
2007
Previous code(s): D03-H01

D05-B **BREWING, ETHANOLIC FERMENTATION**

D05-B01 **Malting grains and mash processing**
Includes both apparatus and methods used in malting grain and mash processing.
1986, 2010

D05-B01A **. Malting grains**
Malting involves soaking grains, allowing them to germinate and then drying. Includes barley steeping device for malt.
2010

D05-B01B **. Mash processing**
Mash processing or preparation. Also includes devices used for mash preparation.
2010

D05-B02 **Brewing beer, fermentation to give beer-type drinks, low-calorie beer**
For low calorie beer also search D03-H01T.
1986

D05-B03 **Fermentation device/process to give ethanol as the main product**
1986

D05-B03A **. Fermentation device/process to give substituted ethanol as main product**
Includes all substituted ethanols e.g. fluorophenylethanol.
2014

D05-B04 **Fermentation yeast**
Includes yeast blocks, fermentation to give yeast as the main desired product, use of yeast in brewing, baking or animal feeds.
1986

D05-B **General and others**

D05-C **CHEMICALS BY FERMENTATION (BIOSYNTHESIS)**
This section is not additionally searched under D05-A03: or D05-A04: Polypeptides and proteins (including enzymes) which are produced by genetically engineered microorganisms are searched under D05-C and under D05-H17. Polypeptides and proteins (including enzymes) which are produced by engineered cell lines (i.e. not by microorganisms and so not defined as fermentation) are only searched under D05-H17.

D05-C01 **Amino acids**
Also includes substitutions such as 4-oxoproline.
1971

D05-C02 **Antibiotics**
1971

D05-C03 **Enzymes**
1971

D05-C03A **. Coenzymes**
1986

D05-C03B **. Oxidoreductases**
1986

D05-C03C **. Hydrolases**
1986

D05-C03D **. Transferases**
1986

D05-C03E **. Lyases**
1986

D05-C03F **. Isomerases**
1986

D05-C03G **. Ligases (synthetases)**
1986

D05-C04 **Steroids**
1971

D05-C05 **Nucleotides**
1972

D05-C06 **Nucleosides**
1972

D05-C07 **Nucleic acids**
1972

D05-C08 **Sugars**
Including polysaccharides, sugar amines and sugar acids. Also all syrups.
1972

D05-C09 **Aliphatic acids**
Excepting any acids covered under higher codes. May be substituted but the acid functionality must be retained. Also includes fatty acids.
1972

D05-C10 **Vitamins**
1972

D05-C11 **Polypeptides**
1986

D05-C12 **Specific proteins, excluding enzymes**
1986

D05-C13 **Biomass and non-specific proteins, yeast proteins (not yeast itself)**
1986

D05-C14 **Methane**
1986

D05-C15 **Unsubstituted alcohols excluding ethanol**
For aromatic, cyclic or aliphatic alcohols and may include diols and triols (e.g. ethylene glycol, propanetriol). Sugar alcohols code as D05-C17.
1986

D05-C16 **Di- or tripeptides**
e.g. glutathione
2009

D05-C17 **Sugar alcohols**
2010

D05-C18 **Pigments**
2010

D05-C19 **Lipids**
Includes all lipids including glycerolipids, phospholipids, sphingosine, cephalin, ceramide, oils and its derivatives.
2014

D05-C20 **Hydrogen**
2014

D05-C21 **Polymers**
Production of all polymers, excepting polypeptides and polysaccharides.
2015

D05-C22 **Flavones or flavanoids**
2016

D05-C23 **Other acids**
Including sulfur and phosphorus acids, but excepting amino acids (search under D05-C01), nucleic acids (search under D05-C07), sugar acids (search under D05-C08) and aliphatic and fatty acids (search under D05-C09). This code is applied for acids with non-aliphatic portions such as phenyllactic acid.
2016

D05-C24 **Saponins**
2021

D05-C25 **Terpenes**
2021

D05-C26 **Alkaloids**
Alkaloids synthesised by means of fermentation or extracted or purified from plant source or by means of biosynthesis.
2022

D05-C **Others; general.**
Excluding ethanol

D05-D **DISTILLATION AND RECTIFICATION OF FERMENTED SOLUTIONS, BY-PRODUCT RECOVERY, DENATURING OF ALCOHOL**

D05-D **General**

D05-E **WINE, ALCOHOLIC BEVERAGES**
Includes apparatus and methods for production.

D05-E **General**

D05-F **PASTEURISATION, STERILISATION, PRESERVATION, CLARIFICATION, AGEING ALCOHOLIC BEVERAGES**

D05-F **General**

D05-G **VINEGAR**
Includes apparatus and methods for production.

D05-G **General**

D05-H **MICROBIOLOGY, LABORATORY PROCEDURES**

D05-H01 **Culture media**
1972

D05-H02 **Culture apparatus**
1972

D05-H03 **Formation of microbial mutants**
1972

D05-H03A **. By random method-chemically or by irradiation**
1986

D05-H03B **. By recombinant DNA technology**
From 1994, microbial mutants (and non-microbial mutants) obtained by recombinant DNA techniques are searched under D05-H14. New methods of forming microbial and non-microbial mutants are searched under D05-H18.
1986-1993

D05-H04 **Newly discovered, testing of, isolation of, identification of and detection of bacteria**
May also be used in combination with D05-H18B code. Mutants code here but recombinant bacteria are searched under D05-H14A.
1972

D05-H05 **Newly discovered, testing of, isolation of, identification of and detection of fungi**
May also be used in combination with D05-H18B code. Mutants code here but recombinant fungi are searched under D05-H14A2.
1972

D05-H06 **Newly discovered, testing of, isolation of, identification of and detection of viruses and other**
1972

D05-H06A **. Newly discovered, testing of, isolation of, identification of and detection of viruses**
May also be used in combination with D05-H18B code. Mutants code here but recombinant viruses are searched under D05-H12F.
2002

D05-H06B **. Newly discovered, testing of, isolation of, identification of and detection of prions**
2002

D05-H07 **Production of vaccines, antigens**
1972

D05-H08 **Cell or tissue culture general or unspecified**
Search when the culture is not specified or when both of the sub-codes are applicable.
1972

D05-H08A **. Microorganism culture**
Includes microbes.
2016

D05-H08B **. Animal/plant cells culture**
Plant and animal cells.
2016

D05-H09 **Testing and detection other than D05-H04, D05-H05 and D05-H06**
May be used in combination with D05-H18B.
1986

D05-H10 **Fixing biological substances or cells to a carrier and the carriers themselves**
Excludes microorganisms and enzymes. Microorganisms and enzymes bound to carriers are searched under D05-A codes.
1986

D05-H11 **Antibodies**
Restricted to monoclonal antibodies only prior to 1994.
1986

D05-H11A **. Monoclonal antibodies**
1994
Previous code(s): D05-H11

D05-H11A1 **.. Monoclonal antibodies prepared by hybridoma techniques**
1994
Previous code(s): D05-H11

D05-H11A2 **.. Monoclonal antibodies prepared by recombinant DNA techniques**
Includes CDR-grafted, humanised and chimeric antibodies; antibodies produced in transgenic animals and antibodies or fragments thereof fused to physiologically active polypeptides such as enzymes or toxins. The production of engineered antibodies and fusion proteins comprising an antibody or antibody fragment is searched under D05-H17A1, D05-H17B1 or D05-H17C1 codes.
1994
Previous code(s): D05-H11

D05-H11B **. Polyclonal antibodies**
1994

D05-H11C **. Abzyme**
A catalytic antibody.
2005

D05-H12 **DNA, cDNA, transfer vectors, RNA**
1986

D05-H12A **. Wild-type coding sequences**
Includes new genes and gene fragments. Wild-type (or "native") coding sequences code for the normal, functional version of a protein. Wild-type coding sequences that are fused to other sequences are searched under D05-H12A if they encode the major expression product, after any post-translational processing, e.g. after cleavage from a signal peptide.
1994
Previous code(s): D05-H12

D05-H12B **. Mutant sequences**
Sequences which encode variant proteins (muteins) and truncated proteins, whether functional or not. Mutant coding sequences which are fused to other sequences are searched under D05-H12B if they encode the major expression product after any post-translational processing.
1994
Previous code(s): D05-H12

D05-H12B1 **.. Naturally occurring mutant sequences**
e.g. mutant allele, polymorphism.
1994
Previous code(s): D05-H12

D05-H12B2 **.. Engineered mutant sequences**
1994
Previous code(s): D05-H12

D05-H12C **. Fusion genes, transgenes**
Includes all fusion genes, transgenes, chimeric or hybrid genes coding for proteins in which all the fused regions are present in the functional translation product. Excludes constructs in which a coding sequence (wild-type or mutant) is fused to e.g. a secretion signal or protease cleavage site such that the major protein product following any post-translational processing is not the intact fusion protein. In these cases, the code D05-H12A or D05-H12B is applied as appropriate.
1994
Previous code(s): D05-H12

D05-H12D **. DNA, cDNA, RNA non-coding sequences**
1994
Previous code(s): D05-H12

D05-H12D1 **.. Primers, probes**
1994
Previous code(s): D05-H12

D05-H12D2 **.. Antisense sequences/constructs**
1994
Previous code(s): D05-H12

D05-H12D3 **.. Triple-helix forming oligonucleotides**
1994
Previous code(s): D05-H12

D05-H12D4 **.. Ribozyme**
1994
Previous code(s): D05-H12

D05-H12D5 **.. Transcription/translation regulation sequences**
Includes new or modified enhancers, promoters and upstream activating sequences.
1994
Previous code(s): D05-H12

D05-H12D6 **.. Other specified non-coding sequences**
1994

D05-H12D6A **... Aptamer**
2006
Previous code(s): D05-H12

D05-H12D7 **.. DNAzyme**
Catalytic DNA sequence.
2005

D05-H12D8 **.. Short interfering RNA / micro RNA general**
2005

D05-H12D8A **... siRNA**
Double-stranded short RNA molecules which bind RNAs and target them for degradation and/or destruction.
2005

D05-H12D8B **... miRNA**
Single-stranded RNA molecules which that are processed from larger stem-looped precusors by Dicer.
2005

D05-H12D8C **... Small hairpin RNA**
2006

D05-H12D9 **.. PNA**
Peptide nucleic acids.
2005

D05-H12D10 **.. Aptamer**
Code retired. All instances in the backfile corrected to D05-H12D6A.
2006-2015

D05-H12E **. Vectors**
Includes viral vectors (e.g. Baculovirus vectors, phagemids), plasmid vectors, cosmids and transposons.
1994
Previous code(s): D05-H12

D05-H12F **. Recombinant viruses (excluding viral vectors)**
Includes recombinant viruses other than those used as vectors, e.g. viruses which have been attenuated for use in vaccines. Naturally occuring viral strains are searched under D05-H06.
1994
Previous code(s): D05-H03B

D05-H12G **. Reporter/marker nucleic acid**
2009

D05-H12H **. Capped nucleic acid sequences**
Includes sequences with trinucleotide cap and trinucleotide mRNA cap. To be searched alongside all other applicable codes from D05-H: relating to the nucleic acid.
2024

D05-H13 **Recovery of biological substances and materials, ultra-filtration**
1986

D05-H14 **Recombinant cells**
Host cells (prokaryotic and eukaryotic) transformed by a recombinant DNA vector.
1994

D05-H14A **. Recombinant microbial cells (unspecified)**
1994
Previous code(s): D05-H03B

D05-H14A1 **.. Recombinant bacteria**
1994
Previous code(s): D05-H03B

D05-H14A2 **.. Recombinant fungi (including yeast)**
1994
Previous code(s): D05-H03B

D05-H14A3 **.. Other recombinant microorganisms (e.g. Protozoa)**
1994
Previous code(s): D05-H03B

D05-H14B **. Recombinant cell lines (unspecified)**
1994

D05-H14B1 **.. Recombinant insect cells**
1994

D05-H14B2 **.. Recombinant mammalian cells**
Excludes antibody-producing cells and hybridomas. Such cells are searched under D05-H15.
1994

D05-H14B3 **.. Recombinant plant cells**
1994

D05-H14B4 **.. Other specified recombinant cell lines**
1994

D05-H15 **Antibody-producing cells, hybridomas**
1994-2014

D05-H15A **. Antibody producing cells/ hybridoma**
A cell line for producing monoclonal antibodies; produced by fusing antibody-secreting B cells with lymphocyte tumor cells.
2005

D05-H15B **. Other chimeric/fused cells**
Cell lines comprising or formed from components derived from 2 separate cell types, and excluding antibody producing hybridomas.
2005

D05-H16 **Transgenic organisms**
1994

D05-H16A **. Transgenic animal**
1994

D05-H16B **. Transgenic plant**
Includes plants cultured from cells which are manipulated by genetic engineering techniques.
1994

D05-H16C **. Transomatic animal**
An animal which has gene(s) from another cell or organism stably incorporated into some but not all cells.
2005

D05-H16D **. Transomatic plant**
2005

D05-H17 **Recombinant protein/polypeptide production**
Production of polypeptides and proteins by recombinant DNA techniques is searched under D05-H17. Includes production of heterologous proteins in a genetically engineered host or transgenic organism, enhanced production of host proteins and production of genetically engineered antibodies. If the host is microbial, e.g. a bacterium or fungus, D05-H17 codes are applied in addition to the appropriate D05-C codes.
1994

D05-H17A **. Wild type protein/polypeptide production**
Includes production of wild-type proteins with more than one subunit except where these are expressed as a fusion protein.
1994

D05-H17A1 **.. Production of engineered wild-type antibodies**
1994

D05-H17A2 **.. Production of wild-type cytokine, lymphokine, growth factor, hormone**
1994

D05-H17A3 **.. Production of wild-type enzyme**
1994

D05-H17A4 **.. Production of wild-type receptor**
1994

D05-H17A5 **.. Production of wild-type antigen**
1994

D05-H17A6 **.. Production of other specified wild-type protein**
1994

D05-H17A7 **.. Production of wild-type zinc finger protein**
A protein which contains (or is capable of binding) zinc ions through cysteine residue (or a combination of cysteine and histidine residues). Zinc fingers function in helping some proteins that bind to DNA recognize that DNA.
2005

D05-H17B **. Mutant protein/polypeptide production**
Includes production of mutant proteins comprising more than one subunit and production of proteins in which different subunits are derived from different sources, except where these are expressed as a fusion protein.
1994

D05-H17B1 **.. Production of engineered mutant antibodies**
1994

D05-H17B2 **.. Production of mutant cytokine, lymphokine, growth factor, peptide hormone**
1994

D05-H17B3 **.. Production of mutant enzyme**
1994

D05-H17B4 **.. Production of mutant receptor**
1994

D05-H17B5 **.. Production of mutant antigen**
1994

D05-H17B6 **.. Production of other specified mutant protein**
1994

D05-H17B7 **.. Production of mutant zinc finger protein**
2005

D05-H17C **. Fusion protein/polypeptide production**
Includes fusion proteins where the fused translation product remains intact as the functional (or multifunctional) protein, e.g. a cell-binding region fused to a catalytic region, a membrane-anchoring sequence fused to an antigenic region, etc. Excludes "fusion proteins" which undergo post-translational processing to produce separate protein entities. In these cases, the major cleavage product is coded in D05-H17A or D05-H17B, as appropriate.
1994

D05-H17C1 **.. Production of fusion protein comprising an antibody or antibody fragments**
1994

D05-H18 **Genetic engineering techniques, new methods**
Includes transfection techniques.
1994

D05-H18A **. Nucleic acid sequencing method**
1994

D05-H18B **. Nucleic acid amplification, general or unspecified**
Detection methods coded in D05-H04, D05-H05, D05-H06 or D05-H09 which rely on nucleic acid amplification e.g. for detection of specific microbial strains or specific polymorphisms are additionally searched under D05-H18B codes.
1994

D05-H18B1 **.. Thermocycling nucleic acid amplification method**
Includes PCR and LCR.
2022

D05-H18B2 **.. Isothermal and other nucleic acid amplification method**
2022

D05-H19 **Biological materials for use in genetic engineering (general)**
1994

D05-H19A **. Newly discovered restriction endonucleases and methylases**
1994

D05-H19B **. New or modified DNA polymerases, RNA polymerases**
Includes reverse transcriptase.
1994

D05-H19C **. CRISPR system**
Clustered Regularly Interspaced Short Palindromic Repeats (includes claimed CRISPR enzymes e.g. Cas). This code covers either or both of the nucleic acid and the enzyme involved in the system.
2015

D05-H20 **Electroporation**
Includes both apparatus and methods used for electroporation.
2007

D05-H99 **Patent with Geneseq record**
For patents in D16 with associated Geneseq record.
2017

D05-H **General and others**

D05-J **BREWING DEVICES**
Including pitching, machines, and cellular tools

D05-J **General**

D05-K	**BIOLEACHING** Includes methods and processes of bioleaching, specific bioleaching microorganisms and improving conditions for bioleaching. Where the microorganisms are claimed as new, they will also be coded under the appropriate section from D05-H04, D05-H05 and/or D05-H06. **2019**
D05-K	**General** **2019**

D06 SUGAR AND STARCH INDUSTRY

D06-A	**PROCESSING RAW MATERIALS** Including cutting mills, shredding knives, pulp presses.
D06-B	**Treatment of sugar juices**
D06-C	**Processing raw sugar** Includes centrifuging, sugar crystals, testing sugar solutions, purification.
D06-D	**Evaporation apparatus; boiling pans; drying sugar**
D06-E	**Cutting, sorting and packing of sugar, sugar lumps**
D06-F	**Extraction of sugar from molasses**
D06-G	**Other sugars**
D06-H	**Polysaccharides general**
D06-H01	**. Starch and derivatives, dextran** **1986**
D06-H02	**. Cyclodextrin** **1986**

D07 SKINS, HIDES, PELTS, LEATHER, TOBACCO

D07-A **Mechanical treatment of skins, hides, leather and pelts**
Including cutting, stretching.

D07-B **Chemical treatment of skins, hides, leather and pelts**
Including dyeing, chemical dehairing and defatting.

D07-C **Tobacco preparation and processing**

D07-D **Chemical features or treatment of tobacco**
Including filter tips, removal of nicotine, tobacco extracts.

D08 COSMETICS, DENTAL, TOILET PREPARATIONS

D08-A **DENTAL PREPARATIONS (GENERAL AND OTHERS)**

D08-A01 **Fillings**
1986

D08-A02 **Adhesives and cements**
1986

D08-A03 **Artificial teeth, dentures, crowns, fixing devices for dentures, moulding devices**
Excluding cements and adhesives.
1986

D08-A04 **Dental instruments, saliva pumps, syringes**
1986

D08-A04A . **Dental cleaning device**
2011

D08-A05 **Anticaries compositions**
1986

D08-A06 **Dental plaster and dental impression devices**
1986

D08-B **COSMETIC PREPARATIONS (GENERAL AND OTHERS)**

D08-B01 **Make-up (and removing); luminescent pastes**

D08-B01A . **Eye make-up**
e.g. eye shadow, eyeliner, mascara etc.
2005

D08-B01B . **Lip products**
e.g. lipsticks, lip gloss, lip liners etc.
2005

D08-B01C . **Make-up**
e.g. foundations and blushers.
2005

D08-B01D . **Others**
2005

D08-B01D1 .. **Skin whitening agent**
2007
Previous code(s): D08-B01D

D08-B01D2 .. **Skin darkening, fake tan**
Topically applied only. Ingested melanogenesis stimulants code in section B.
2025

D08-B01E . **Make-up removing**
Includes removal of fake tan. Nail polish removers code D08-B02B.
2025

D08-B02 **Nail care general**
Only use this code if the description given in the patent is too vague to apply any of the more specific ones given below.

D08-B02A **. Nail polishes**
Include thickeners, hardeners and bonding agents used in nail polish.
2011

D08-B02B **. Nail polish removers**
2011

D08-B02C **. Artificial nails**
Include extended and fashion nails such as acrylic nails, sculptured nails and gelled nails.
2011

D08-B03 **Care of hair (or promoting growth)**

D08-B03A **. Products for promoting growth**
2005

D08-B03B **. Hair conditioner**
2 in 1 shampoo and conditioners code here and also in D08-B04.
2005

D08-B03C **. Others**
2005

D08-B04 **Rinsing the hair, shampoo**

D08-B05 **Waving, straightening, fixing hair**

D08-B06 **Dyeing, bleaching hair**

D08-B07 **Depilatories, soapless shaving preparations**

D08-B08 **Cleaning the teeth or mouth general**

D08-B08A **. Toothpaste**
2002

D08-B08B **. Mouthwash**
Tooth cleaning composition in the form of a solution or emulsion designed to be used as a mouth wash.
2002

D08-B08C **. Gels**
2005

D08-B08D **. Strips**
2005

D08-B08E **. Floss**
Includes dental tape.
2005

D08-B09 **Care of the skin, anti-perspirants, astringents general**
1971

D08-B09A **. Skin care general**
1986

D08-B09A1 **.. Skin care**
2002

D08-B09A1A **... Liquid skin care formulation**
2007
Previous code(s): D09-B09A1

D08-B09A1B **... Solid skin care formulation**
2007
Previous code(s): D09-B09A1

D08-B09A2 **.. Personal face and body wash**
2002

D08-B09A2A **... Liquid personal face and body wash**
2007
Previous code(s): D09-B09A2

D08-B09A2B **... Solid personal face and body wash**
2007
Previous code(s): D09-B09A2

D08-B09A3 **.. Anti-ageing preparations**
2002

D08-B09B **. Antiperspirant deodorants**
From 2005, this code has been expanded to cover both antiperspirants and deodorants.
1986

D08-B09B1 **.. Deodorant only**
2005

D08-B09B2 **.. Antiperspirant only**
2005

D08-B10 **Carriers or bases for cosmetics**
1986

D08-B11 **Antioxidants and stabilisers**
1986

D08-B12 **Perfume for cosmetics**
D10-A05 may also be searched.
1986

D08-B13 **Surfactants for cosmetics, excluding hair washing compositions, soap and mouth and dental preparations**
1986

D08-B14 **Whitening teeth only**
For whitening chewing gum use this code and D03-E09.
2005

D08-B14A **. Toothpaste**
Includes tooth powder.
2005

D08-B14B **. Mouthwash**
2005

D08-B14C **. Gels**
2005

D08-B14D **. Strips**
2005

D08-B15 **Cellulite treatment**
2005

D08-B **General and others**

D08-C **Animal use**
Used for novelties where a code from D08-A and/or D08-B applies but solely for use with animals.
2005

D09 STERILISING AND DISINFECTING, BANDAGES AND DRESSINGS

D09-A **DISINFECTION OR STERILISATION OTHER THAN OF FOOD OR AIR**
Including preservation of bodies and their parts e.g. vital organs, cornea, semen, embryos.

D09-A01 **Chemical methods**
1971

D09-A01A **. Oxidising agents (including peroxides) halogens, halogen-generators (chlorisocyanurates) heavy metal compounds; other inorganics**
1977

D09-A01B **. Phenolic compounds (including precursors such as esters); quaternary ammonium compounds (optionally cyclic); amine oxides, tropolones; sulfonium**
1977

D09-A01C **. Antibiotics; other heterocyclics**
Including ethylene oxide.
1977

D09-A02 **Physical method**
1971

D09-A02A **. By irradiation**
e.g. UV.
2011

D09-A02B **. By heating**
2011

D09-A02C **. By electrochemical methods**
Disinfection by electrochemical methods.
2023

D09-A03 **Preservation of biological specimens and tissue**
2005

D09-A03A **. Preservation of organs, other body tissues**
2011

D09-A03B **. Preservation of plant tissues**
e.g. flowers.
2011

D09-A **General and others.**

D09-B **DISINFECTION AND STERILISATION OF AIR**
Including purifying, deodorising and killing insects.

D09-B **General**

D09-B01 **Deodorising/sterilising devices general**
Apply codes from this section only if the device is claimed. May be used in conjunction with other D09-B codes if necessary.
2005

D09-B01A . **Using heating elements**
e.g. vaporisers, evaporators and plug-ins.
2005

D09-B01B . **Using sprayers/atomisers**
e.g. aerosols, pumps and misting devices.
2005

D09-B01C . **Passive means**
Spreading a substance by convection or sachets.
2005

D09-B02 **Candles used in disinfection / deodorisation of air**
2005

D09-B03 **Creation of aseptic environment**
Used for processes and apparatus designed to create a sterile atmosphere within a room, especially an operating theatre or food preparation plant.
2005

D09-B04 **Perfuming of air (masking)**
2005

D09-B05 **Neutralising odour causing substances**
e.g. cat litter.
2005

D09-B06 **Killing/controlling insects (in a room)**
2005

D09-B07 **By irradiation**
2011

D09-C **BANDAGES, DRESSINGS**

D09-C01 **Prostheses, implants**
Prior to 2010 this code did not cover implants. From 2010, D09-C01F has been introduced to cover implants, hence the addition of implants to the general D09-C01 code. Excludes dentures, false nails, eyelashes and wigs.
1972

D09-C01A . **Lenses**
1986

D09-C01B . **Blood vessels**
1986

D09-C01C . **Organs, heart, heart valves, pancreas**
1986

D09-C01D . **Artificial joints and limbs, artificial bone, tendons**
Includes bone adhesive, bone cement.
1986

D09-C01E . **Tissue engineering scaffold**
Includes all processes and chemicals used in the production of the scaffolds.
2007
Previous code(s): D09-C

D09-C01F . **Catheters, stents, implants**
2010

D09-C02 **Catamenial devices with special shape**
Including production.
1972

D09-C02A . **Tampons**
2005

D09-C02B . **Other sanitary products**
E.g. sanitary napkins.
2005

D09-C03 **Baby nappy**
Disposable diaper.
1972

D09-C04 **Others with special shape**
Including production general.
1972

D09-C04A . **Cataplasms, poultices (for applying heat to a body part)**
1986

D09-C04B . **Adhesive plasters, bandages, wound dressings**
1986

D09-C04C . **Splints (external)**
For internal see D09-C01.
1986

D09-C04D . **Surgical gowns, protective clothing**
1986

D09-C04E . **Adult incontinence pads**
2005

D09-C05 **Water repellent materials for use as above**
1972

D09-C06 **Water absorbent materials for use as above**
1972

D09-C **General and others**

D09-D **SURGICAL SUTURE MATERIALS**

D09-D **General**

D09-E	**CHEMICAL PROTECTION OF SKIN**
D09-E	**General** e.g. chemical agents brought into direct contact with the skin of living human or animal bodies to afford protection against external influences (sunlight, X or other active rays, corrosive liquids or solids, bacteria, insect stings. Includes barrier creams).
D09-E01	**Sunscreen** **2002**
D09-E02	**Insect repellents** **2002**
D09-E03	**Barrier creams** Applied to skin to create physical barrier between skin and substances which may cause skin irritation, e.g. caustic chemicals. **2002**

D10 ANIMAL AND VEGETABLE OILS

D10-A	**OILS AND FATS, PERFUMES**
D10-A01	**Fats or oils production from raw materials**
D10-A02	**Refining fats or oils**
D10-A03	**Preserving by use of additives**
D10-A04	**Separation of mixtures into constituents** e.g. saturated from unsaturated oils.
D10-A05	**Essential oils, perfumes general**
D10-A05A	**. Essential oils** **1986**
D10-A05B	**. Perfume compositions for rooms** e.g. stone impregnated with perfume with sustained release effect. **1986**
D10-A05C	**. Perfumes other than above** **1986**
D10-A06	**Compositions containing oils and fat** **1971**
D10-A	**General and others** Except D03-C and D10-B03.
D10-B	**FATTY ACIDS, CANDLES**
D10-B01	**Fatty acids preparation from fats, oils or waxes; refining**
D10-B02	**Chemical modification of fats, oils, fatty acids**
D10-B03	**Candles**
D10-B04	**Compositions containing fatty acids** Except D11-C **1971**
D10-B	**Unclassified**

D11 DETERGENTS, SOAP, GLYCEROL

D11-A **SURFACE ACTIVE NON-SOAP DETERGENTS**

D11-A01 **Anionic compounds**

D11-A01A **. Carboxylic acids, salts and substituted derivatives**
Except soap.
1972

D11-A01A1 **.. Contains free carboxylic acid group(s)**
1986

D11-A01A2 **.. Contains carboxylic acid ester group(s), but no free carboxylic acid groups**
1986

D11-A01A3 **.. Contains carboxylic amide group(s) but no carboxylic acid or ester group**
1986

D11-A01B **. Sulfonic acids and esters**
1972

D11-A01B1 **.. Aryl sulfonic acid**
Sulfonic acid group linked via the sulfur atom to the aromatic ring.
1986

D11-A01B2 **.. Aliphatic sulfonic acid**
Sulfonic acid group linked via the sulfur atom to the aliphatic chain
1986

D11-A01C **. Lignin sulfonates and derivatives**
1972

D11-A01D **. Protein hydrolysates, fatty acid condensates thereof**
1972

D11-A01E **. Derivatives of acids of P**
1972

D11-A01F **. Sulfate esters**
1972

D11-A01F1 **.. Unsubstituted alkyl sulfates**
1986

D11-A01F2 **.. (Poly)ethoxylated sulfates with one or more ethyleneoxy groups**
1986

D11-A02 **Cationic compounds**

D11-A02A **. Heterocyclic quaternary ammonium with N+ in ring**
1986

D11-A02B **. Quaternary ammonium not in heterocyclic ring**
1986

D11-A02B1 **.. Containing amide group**
1986

D11-A02B2 **.. Containing ether or OH groups**
Excluding D11-A02B1.
1986

D11-A03 **Non-ionic compounds**

D11-A03A **. Polyalkylene oxides**
1986

D11-A03A1 **.. Polyalkylene glycol ethers with higher alcohols and cycloalkanols**
1986

D11-A03A2 **.. Polyalkylene glycol ethers with phenols**
1986

D11-A03A3 **.. Polyalkylene glycol ethers with polyols**
e.g. glycerol, sorbitan.
1986

D11-A03A4 **.. Polyalkylene glycol esters with higher carboxylic acids**
1986

D11-A03A5 **.. Polyalkylene glycol ethers with substituted alkanols**
e.g. long chain amides of monoethanolamine.
1986

D11-A03B **. Glycosides (as surfactants)**
1994
Previous code(s): D11-A03

D11-A04 **Ampholytes, electroneutral compounds**

D11-A04A **. Containing quaternary ammonium group(s) and sulfonate group(s)**
1986

D11-A04B **. Containing quaternary ammonium group(s) and carboxy group(s) but no sulfonate group(s)**
1986

D11-A04C **. Amine oxide type compounds**
2005

D11-A05 **Anionic and anionic mixtures**
From 197701 also search D11-A01: to D11-A04:
1972

D11-A06 **Anionic and cationic mixtures**
From 197701 also search D11-A01: to D11-A04:
1972

D11-A07 **Anionic and non-ionic mixtures**
From 197701 also search D11-A01: to D11-A04:
1972

D11-A08 **Cationic and cationic mixtures**
From 197701 also search D11-A01: to D11-A04:
1972

D11-A09 **Cationic and non-ionic mixtures**
From 197701 also search D11-A01: to D11-A04:
1972

D11-A10 **Non-ionic and non-ionic mixtures**
From 197701 also search D11-A01: to D11-A04:
1972

D11-A11 **Anionic, cationic and non-ionic mixtures**
From 197701 also search D11-A01: to D11-A04:
1972

D11-A12 **Ampholytes and anionic and/or cationic and/or non-ionic detergent mixtures**
From 197701 also search D11-A01: to D11-A04:
1972

D11-A **Detergents and their mixtures - general**

D11-B **NON SURFACE ACTIVE DETERGENT ADDITIVES**
This code is only applied if five or more of the D11-B sub-codes would be applicable.

D11-B01 **Bleaching agents; optical brighteners**
1971

D11-B01A . **Organic bleaches**
e.g. peroxy-carboxylic acids.

D11-B01B . **Inorganic bleaches**
e.g. hydrogen peroxide, hypochlorite.

D11-B01C . **Optical brighteners, anti-greying agents, blueing agents**

D11-B01D . **Bleach activators and catalysts**
1994
Previous code(s): D11-B01

D11-B01D1 .. **Bleach activators**
Includes acyloxybenzene sulfonates, acyloxybenzoic acid, N-acyl lactams and tetraacetylethylenediamine.
2005

D11-B01D2 .. **Bleach catalysts**
Includes various transition metal complexes and free radical generators such as azobisisobutyronitrile.
2005

D11-B01D3 .. **Enzymatic bleaches**
Bleach compositions that use an enzyme as the active ingredient.
2005

D11-B01E . **Bleach boosters**
Compounds added to bleach compositions which are not themselves bleaches but which do increase bleaching power of the composition.
2005

D11-B02 **Enzyme additives**
The detergent composition comprises enzymes, e.g. proteases.
1972

D11-B03 **Builders**
1972

D11-B04 **Anticaking agents and soil suspending agents**
1972

D11-B05 **Antitarnishing agents**
1972

D11-B06 **Sequestering agents**
1972

D11-B07 **Foam promoters**
1972

D11-B08 **Foam inhibitors**
1972

D11-B09 **Abrasives**
1972

D11-B10 **Carbohydrates, starch and cellulose derivatives**
1972

D11-B11 **Silicates, carbonates, alkali, silicones, siloxanes**
1972

D11-B11A . **Inorganic silicates**
Including clays and zeolites.
2005

D11-B11B . **Organic silicon compounds general**
2005

D11-B11B1 .. **Reactive silicon compounds**
Includes silazanes.
2005

D11-B11B2 .. **Inert silicon compound**
Includes silicones and siloxanes unless they have pendant reactive groups.
2005

D11-B11C . **Inorganic carbonates**

D11-B11D . **Alkalis**
2005

D11-B12 **Stabilisers (various)**
1972

D11-B13 **Acids**
1972

D11-B14 **Antimicrobial agents**
1972

D11-B15 **Fabric softeners and conditioners**
Do not also search D11-D07.
1972

D11-B15A . **Concentrated form**

D11-B15B . **Other liquid fabric softeners and conditioners**

D11-B15C . **Other special forms of softeners and conditioners**

D11-B16 **Solubilisers (solvents, hydrotopes)**
1977

D11-B17 **Organic non-polymeric sulfur containing compound**

D11-B18 **Organic non-polymeric phosphorus containing compounds**

D11-B19 **Organic polymers**
Excluding polysaccharides (D11-B10) and polysiloxanes (D11-B11).

D11-B20 **Inorganic nitrogen containing compound**

D11-B21 **Inorganic phosphorus containing compound**

D11-B22 **Other inorganic additives**
Excluding D11-B11.

D11-B23 **Perfume or odourant for detergents**

D11-B24 **Thickeners**
Substances added to a detergent composition in order to increase its viscosity. If a specific type of thickener is used also apply the appropriate D11-B structural code (e.g. if cellulose is used as the thickener add D11-B10).
2005

D11-B **General and others**

D11-C **SOAP DETERGENT COMPOSITIONS**

D11-C01 **Use general**

D11-C01A . **Soap bars**

D11-C01B . **Soap powders**

D11-C01C . **Liquid soaps**

D11-C02 **Soap compositions without special shape and without non-soap detergents**

D11-C03 **Soap with non-soap detergents**

D11-C **Soap detergent compositions**

D11-D **SPECIAL METHODS OR DETERGENT MATERIALS**

D11-D01 **Detergent compositions with special uses**
1971

D11-D01A . **Dishwashing, bottle and utensil washing**
Including china, glass and plastic.
1986

D11-D01B . **Heavy duty hard surface cleaner**
e.g. paintwork, plastic surfaces, baths (excluding plastic baths), walls, tiles, stone, machinery, surgical instruments, cars, aircraft, boilers, ships and metal articles.
1986

D11-D01B1 .. **Oven cleaners**
2005

D11-D01B2 .. **Flux removers**
2005

D11-D01B3 .. **Other abrasive type household surface cleaners**
2005

D11-D01B4 .. **Other bleach based household surface cleaners**
2005

D11-D01B5 .. **Other household surface cleaners**
2005

D11-D01B6 .. **Other industrial hard surface cleaners**
2005

D11-D01C . **Glass or window cleaner, (contact) lens cleaners**
1986

D11-D01D . **Lavatory cleaner**
Includes toilet cleaner.
1986

D11-D01E . **Drain or sink cleaner**
For unblocking sewer pipes or helping to prevent the occurrence of clogged drains.
1986

D11-D01F . **Detergents effective at low temperatures**
1986

D11-D01G **. Detergents effective at high temperatures**
1986

D11-D01H **. Laundry compositions**
2005

D11-D01J **. Personal care compositions**
2005

D11-D02 **Detergent compositions with special shape or colour**
1971

D11-D02A **. Tablet or other moulded article**
2005

D11-D02B **. Capsule**
Includes microcapsules.
2005

D11-D02C **. Sprays**
2005

D11-D02D **. Other**
2005

D11-D03 **Powders, flakes and granules production**
1972

D11-D04 **Pastes, gels and scouring composition production**
1972

D11-D05 **Sulfonation processes for preparing detergents**
1971

D11-D06 **Biodegradable detergents**
1972

D11-D07 **Liquid detergent compositions**
1977

D11-D07A **. Heavy duty laundry detergents**
For use in automatic washing machines.
2005

D11-D07B **. Light duty liquid laundry detergents**
For use in hand washing of clothes.
2005

D11-D07C **. Liquid laundry detergents with special use**
2005

D11-D07C1 **.. Colour care**
2005

D11-D07C2 **.. Combined detergent / fabric softener**
2005

D11-D07C3 **.. Liquid laundry detergents with bleach (stain removers)**
2005

D11-D07D **. Liquid dishwashing detergents**
2005

D11-D07E **. Automatic dishwashing rinse aids**
2005

D11-D07F **. Liquid soap type (hand washing compositions)**
2005

D11-D07G **. Others**
2005

D11-D08 **Granular laundry detergent compositions**
Use when the actual composition rather than its means of manufacture is claimed.
2005

D11-D **General and others**

D11-E **SOAP-MAKING, GLYCEROL**

D11-E01 **Resin soaps from naphthenic acids**

D11-E02 **Glycerol recovery from saponfication liquor**
For refining see E10-E04+.

D11-F **DETERGENTS WITHOUT TENSIDES**

D11-F **General**

E:
GENERAL CHEMICALS

E01 Steroid
E02 Antibiotic
E03 Vitamin
E04 Other Natural Materials
E05 Miscellaneous Organic
E06 Heterocyclic Fused Rings
E07 Heterocyclic, Mononuclear
E08 Aromatic, Polycarbocyclic
E09 Alicyclic, Polycarbocyclic
E10 Aromatic and Cyclo Aliphatic (Mono and Bicyclic only), Aliphatic
E11 Processes, Apparatus
E12 Physical Form
E21 Azo Dyes
E22 Anthraquinone Dyes
E23 Phthalocyanine (Macrocyclic) Dyes
E24 Special Class of Dye
E25 General and Other Dyes
E26 Dye Precursors excluding E21-E, E24-B
E27 Dye Formulations; Morphology
E31 Non-metallic Elements, Metalloids and Compounds
E32 Ammonia, Cyanogen and Compounds
E33 Alkali Metal Compounds
E34 Compounds of Be, Mg, Al, Ca, Sr, Ba, Ra, Th, Rare Earth
E35 Compounds of Other Metals

E: GENERAL CHEMICALS

General Chemical manual codes have been divided into four main sections:-

E01-E11: Organic chemistry (**E1**)

E12: Physical form

E21-E27: Organic Dyes, Pigments (**E2**)

E31-E35: Inorganic Chemistry (**E3**)

A compound is generally classified in only one of sections (E1), (E2) or (E3), except that:

a organic complexes or salts having an important inorganic component are also coded in section (E3) with the addition of codes E05-S or E05-T, and

b E26 compounds which are not themselves dyes are also coded in section (E1).

c. E12 codes are applied in addition to E1 or E3 codes. Compounds classified in E2 have their own physical form manual codes (see E27-B Morphology).

Coding rules

1. For **organic salts and complexes** containing more than one essential specific component, each component (e.g. anion and cation of a salt) is coded separately.
2. **Production** is used to cover new compounds, purification, isolation, storage and chemical processes for producing a known compound and chemical processes where the end-product is a mixture of compounds.
3. **Use** covers all other inventive features, e.g. compositions, physical processes for producing mixtures, and detection, testing and removal of compounds.
4. **Inorganic carbon compounds**: The following compounds (including those where S-atoms are replaced by Se or Te) are coded as inorganic:- carbides, graphite compounds, CO, metal carbonyls (see metal), CO2, COS, CS2, COX2, CSX2 (where X are same or different halogens), metal salts of (thio)carbonic or of (thio) carbamic acid*, (thio)-cyanogen, cyanamide*, HCN, HCNO, HCNS, (thio)-cyanogen halides and fulminates. Please note other carbon oxides are coded as organic, as are (thio)ureas and dicyandiamides.

   *For some (early) references, these compounds have been coded as organic.

5. **Enol-keto (thiol-thiono) tautomers** and their derivatives (e.g. oximes but not phenols) are always coded as keto (thiono) structures and **amino-imino tautomers** are always coded as amino structures; the rules are the same as for the fragmentation code.

Note

1. Where a code refers to the number of groups present, this refers to the molecule (or ion) as a whole, unless stated otherwise.
2. When a specific code is searched, the corresponding generic code(s) (used for general disclosures which would otherwise require several specific codes) must also be searched for complete coverage.

Section E codes commenced at 197001.

E01-E11 ORGANIC CHEMISTRY (E1)

In section (E1) a single compound is normally assigned just one code in order of priority:-

E01 > E05 > E06 > E07 > E08 > E09 > E10

Within each of the basic groups E05*, E06 and E07 codes for all essential elements or rings are applied whereas in E08, E09 and E10 only one code is applied.

*From 199401 the inclusion of fullerenes within section E05 has resulted in an alteration to this rule; codes for all essential elements in a heterofullerene are **not applied** - they receive code E05-U01 only. e.g. Hf in C60 codes E05-U01 only, **not** E05-N, E05-U01.

Note

1. E02, E03 and E04 are very rarely used because, for known structures, only the chemical structure codes are applied.
2. Codes from E11 are applied where there is insufficient (chemical) information and to highlight general and analytical processes.

E01 STEROID

Includes all compounds containing a cyclopenta(a) phenanthrene ring system, optionally fused with other rings; **not** coded elsewhere unless additionally as dyes.

E01	**GENERAL**
E01-P	**Steroid - production** Used for any specified method of producing steroids. **2010**
E01-U	**Steroid - use** Used for any specified use of steroids **2010**

E02 ANTIBIOTIC

Antibiotic with unknown structure.

E02	**GENERAL**

E03 VITAMIN

Vitamin with unknown structure.

E03	**GENERAL**

E04 OTHER NATURAL MATERIALS

E04-A	**ALKALOID, PLANT EXTRACT** Alkaloid, plant extract with unknown structure.
E04-B	**ANIMAL EXTRACT, MICROBIOLOGICAL** Animal extract, microbiological with unknown structure.
E04-C	**SUGAR OF UNKNOWN CONSTITUTION; OTHER NATURAL PRODUCT** Sugar of unknown constitution; other natural product with unknown structure.

E05 MISCELLANEOUS ORGANIC

This section contains:

- all organic compounds containing elements other than H, C, N, O, S, and halogen
- all compounds containing specific isotopes
- all radioactive organic and inorganic compounds
- all compounds containing halogen as hetero-ring member
- all fullerene type cage structures (from 199401)
- all organics containing inorganic ligand as essential component; the latter is coded in section (**E3**) and E05-S or E05-T if appropriate.

Note

1. Organic compounds containing metals are coded in E05 only if the metal either:- (a) forms an important limiting factor of the invention or (b) is attached to organic C-atom or (c) is radioactive or contains a specific isotope. Thus metal salts of organic acids are generally coded only in E05, but for alkali(ne earth) or Al salts see first the code for the acid, then E05-A or E05-B. These latter codes are used only if the metal is the limiting factor.
2. From 199401, fullerene type cage structures have been included in this section commencing at code E05-U. Previously, these compounds had been coded in section (**E3**), i.e. E31-N+ for carbon only fullerenes (e.g. Buckminsterfullerene). For fullerenes containing heteroatom(s) of greater priority than carbon, relevant codes corresponding to that atom had been applied.

E05-A	**ALKALI METAL**
E05-A	**Lithium (Li), sodium (Na), potassium (K), rubidium (Rb), cesium (Cs) - general**
E05-A01	**Lithium (Li) compounds** Organo Lithium compound. **2005**
E05-A02	**Sodium (Na), potassium (K), cesium (Cs), rubidium (Rb) compounds** Organo compounds of Na, K, Cs and/ or Rb. **2005**

E05-B **ALKALI EARTH METAL, ALUMINIUM (AL)**

E05-B **General**

E05-B01 **Beryllium (Be), magnesium (Mg), calcium (Ca), strontium (Sr), barium (Ba)**
1975

E05-B02 **Compound having aluminium-C (Al-C) bond**
1975

E05-B03 **Other aluminium (Al) compound**
1975

E05-C **BORON**

E05-C **General**

E05-C01 **Boron (B) in a ring**
1994
Previous code(s): E05-C

E05-C02 **Other boron (B) compound**
1994
Previous code(s): E05-C

E05-D **PERIODIC GROUP IIIB**
Excluding B, Al.

E05-D **Gallium (Ga), indium (In), thallium (Tl) - general**

E05-E **SILICON**
In order of priority:
E05-E01 > E05-E02 > E05-E03.

E05-E **General**

E05-E01 **Heterocyclic or aromatic with Si-C bond**

E05-E01A . **Si as part of a ring**
2005

E05-E01B . **Heterocyclic compound with Si-C bond**
2005

E05-E01C . **Aromatic compound with Si-C bond**
2005

E05-E02 **(Cyclo)aliphatic with Si-C bond - general**
1975

E05-E02A . **4 Si-C bonds to one Si**
1986

E05-E02B . **3 Si-C bonds to one Si**
1986

E05-E02C . **2 Si-C bonds to one Si**
1986

E05-E02D . **1 Si-C bond to one Si**
1986

E05-E03 **Other organo-silicon compound**

E05-E03A . **O-Si bonds only**
Compound containing O-Si bonds only. Used for tetrahydrocarbyloxysilanes and hydrocarbylsilicates.
2005

E05-E03B . **Other silicon compounds**
2005

E05-F **PERIODIC GROUP IVB**
Excluding C, Si.

E05-F **Germanium (Ge), tin (Sn), lead (Pb) - general**

E05-F01 **Compound with tin-C (Sn-C) bond**
1975

E05-F02 **Other compound of germanium (Ge), tin (Sn), lead (Pb)**

E05-F02A . **Germanium (Ge) compound**
Organogermanium compound.
2005

E05-F02B . **Other tin (Sn) compound**
Organotin compound not containing Sn-C bond(s).
2005

E05-F02C . **Lead (Pb) compound**
Organolead compound.
2005

E05-G **PHOSPHORUS**
In order of priority**:** E05-G01 > E05-G02...

E05-G **General**

E05-G01 **P-C bond, heterocyclic compound**

E05-G02 **P-C bond, aromatic compound**

E05-G03 **P-C bond, aliphatic or alicyclic compound - general**

E05-G03A . **phosphonium; or with P-C multiple bond, P-hal or P-N**
1975

E05-G03B . **with 3-valent P (and addition complexes)**
1975

E05-G03C . **with 5-valent P and >1 P-C bonds**
1975

E05-G03D . **with 5-valent P and 1 P-C bond**
1975

E05-G04 **P-N bond, heterocyclic compound**

E05-G05 **P-N bond, aromatic compound**

E05-G06 **P-N bond, aliphatic or alicyclic compound**

E05-G07 **P-O or P-S bond, heterocyclic compound**

E05-G08	**P-O or P-S bond, aromatic compound**
E05-G09	**P-O or P-S bond, aliphatic or alicyclic compound - general**
E05-G09A	**. with P-hal, P-S or >1 P** 1975
E05-G09B	**. with 3-valent P or tautomeric 3-5 valent P** 1975
E05-G09C	**. mono, di or tri-unsubstituted alkyl orthophosphate (or salt)** 1975
E05-G09D	**. other 5-valent P compound** 1975
E05-H	**ARSENIC**
E05-H	**General**
E05-J	**ANTIMONY, BISMUTH**
E05-J	**General**
E05-K	**SELENIUM (SE), TELLURIUM (TE), NOBLE GAS, HALOGEN IN RING** Excluding At, Rn, E05-Q.
E05-K	**General**
E05-L	**1ST TRANSITION SERIES**
E05-L	**General**
E05-L01	**Titanium (Ti) compound**
E05-L02	**Iron (Fe), cobalt (Co), nickel (Ni) compound - general**
E05-L02A	**. Iron (Fe) compound** 1986
E05-L02B	**. Cobalt (Co) compound** 1986
E05-L02C	**. Nickel (Ni) compound** 1986
E05-L03	**Scandium (Sc), vanadium (V), chromium (Cr), manganese (Mn), copper (Cu), zinc (Zn) compound - general**
E05-L03A	**. Scandium (Sc), vanadium (V), chromium (Cr), manganese (Mn) compound** 1975
E05-L03B	**. Copper (Cu) compound** 1975
E05-L03C	**. Zinc (Zn) carboxylate** 1975
E05-L03D	**. Other zinc (Zn) compound** 1975
E05-M	**2ND TRANSITION SERIES**
E05-M	**Y, Zr, Nb, Mo, Tc, Ru, Rh, Pd, Ag, Cd - general**
E05-M01	**Zirconium (Zr) compound** 2005
E05-M02	**Ruthenium (Ru), rhodium (Rh), palladium (Pd) compound - general** 2005
E05-M02A	**. Ruthenium (Ru) compound** 2005
E05-M02B	**. Rhodium (Rh) compound** 2005
E05-M02C	**. Palladium (Pd) compound** 2005
E05-M03	**Y, Nb, Mo, Tc, Ag, Cd - general** 2005
E05-M03A	**. Niobium (Nb), technetium (Tc), cadmium (Cd) compound** 2005
E05-M03B	**. Silver (Ag) compound** 2005
E05-M03C	**. Molybdenum (Mo) compound** 2005
E05-M03D	**. Yttrium (Y) compound** 2005
E05-N	**3RD TRANSITION SERIES**
E05-N	**Hf, Ta, W, Re, Os, Ir, Pt, Au, Hg - general**
E05-N01	**Hafnium (Hf) compound** 2005
E05-N02	**Os, Ir, Pt - general**
E05-N02A	**. Osmium (Os) compound** 2005
E05-N02B	**. Iridium (Ir) compound** 2005
E05-N02C	**. Platinum (Pt) compound** 2005
E05-N03	**Tantalum (Ta), tungsten (W), rhenium (Re), gold (Au), mercury (Hg) general** 2005
E05-N03A	**. Tantalum (Ta), tungsten (W), rhenium (Re) compound** 2005
E05-N03B	**. Gold (Au) compound** 2005
E05-N03C	**. Mercury (Hg) compound** 2005
E05-P	**LANTHANOIDS (LA-LU)**
E05-P	**General**

E05-Q **PO, AT, RN, FR, RA, ACTINOIDS**

E05-Q **General**

E05-R **RADIOACTIVE ELEMENT OTHER THAN E05-Q, SPECIFIC ISOTOPE**

E05-R **General**

E05-S **INORGANIC LIGAND CONTAINING ONLY H, C, N, O, S OR HALOGEN**

E05-S **General**

E05-T **INORGANIC LIGAND (ION OR COMPLEXING AGENT) OTHER THAN E05-S**

E05-T **General**

E05-U **FULLERENE TYPE CAGE STRUCTURES**
Prior to 199401 fullerene structures had been coded in section (**E3**). Further notes are included under the section E05 heading.
Heterofullerenes receive code E05-U01 only; the heteroatom(s) present are **not** described by additional section E05 codes. e.g. Uranium in C82. Code E05-Q should **not** be added to describe the endohedral uranium atom; only code E05-U01 is required.
1994

E05-U **General**
1994

E05-U01 **Other than carbon only**
Where heteroatom(s) may be endohedral (inside cage), may form part of the cage resulting in a hetero cage structure or may be bound to the outside of the cage, e.g. C60H6, C70F34.
1994

E05-U02 **Carbon only**
e.g. Buckminsterfullerene.
1994

E05-U03 **Carbon nanotubes (general)**
A general code, applied when the nature of nanotube is not specified or if all 3 codes below are relevant.
2010

E05-U03A . **Single walled**
Single walled carbon nanotube.
2010

E05-U03B . **Double walled**
Double walled carbon nanotube.
2010

E05-U03C . **Multiple walled (> 2)**
Multiple walled (> 2) carbon nanotube.
2010

E05-U04 **Heteroatom containing nanotubes**
2005

E05-U05 **Other Carbon nano 3-D structures (general)**
A general code, applied when the nature of the three-dimensional structures is not specified or if 3 or more of the codes below are relevant.
2010

E05-U05A . **Nanoparticles, nanopowder**
Carbon nanoparticles or nanopowder.
2010

E05-U05B . **Nanorods, nanowhiskers**
Carbon nanorods, nanowhiskers or nanofibers.
2010

E05-U05C . **Nanofilm**
Carbon nanofilm including graphene.
2010

E05-U05D . **Other nanoforms (e.g. nanobuds, nanohorns or nanodiamonds)**
Other nanocarbon e.g. nanobuds or nanohorns.
2010

E05-U05E . **Quantum dots**
Nano-graphene quantum dots.
2010

E05-U06 **Other heteroatom-containing nano 3-D structures (general)**
Applied when a heterotom is present in any three-dimensional structure(s) other than those covered above.
2010

E05-U07 **Nanostructures of other organic compounds**
Nanostructures of organic compounds other than compounds coded in E05-U above.
2010

E05-V **METALLOCENES**
2005

E05-V **General metallocene**
Also apply all other E05 codes.
2005

E05-V01 **Unbridged metallocene with 2-4 pi-arene ligands**
2005

E05-V02	**Bridged carbocyclic metallocenes** **2005**
E05-V03	**Carbocyclic metallocene with only 1 pi-arene ligand** **2005**
E05-V04	**Metallocene with heteroatom-containing rings** **2005**
E05-V05	**Condensed carbocyclic metallocenes** **2005**
E05-W	**GENERAL ORGANOMETALLIC COMPLEX** **2010**
E05-W	**Organometallic complex (general)** Applied to cover an organometallic complex when the metal is not specified; or when 5 or more of the following general metal codes can be applied. E05-A, E05-B, E05-D, E05-F, E05-H, E05-J, E05 L, E05-M, E05-N, E05-P, E05-Q, E05-R. **2010**
E05-Y	**METAL-ORGANIC FRAMEWORK** Metal organic framework / MOFs. **2021**

E06 HETEROCYCLIC, FUSED RING

The specific compounds listed include all reduced derivatives and tautomers, unless specifically excluded.

Note

1. For systems containing ring elements other than C, O, S and N see E05.
2. Specific ring systems present in a compound are each coded.
3. If there is an essential fused hetero-ring and (optionally) another variable fused hetero-ring, only the essential ring is coded and not the variable ring nor E06-H.

E06-A	**SOLE HETERO(S) OXYGEN**
E06-A	**Oxygen-containing fused heterocyclic - general** **2005**
E06-A01	**1-Benzo-(furan or pyran)**
E06-A02	**Others with 2 rings - general**
E06-A02A	**. Phthalic anhydride (derivative)** **1986**
E06-A02B	**. Phthalide (derivative)** **1986**
E06-A02C	**. Other isobenzofuran; isochromene** **1986**
E06-A02D	**. Other with one O** **1986**
E06-A02E	**. Rings with 2 or more O** **1986**
E06-A03	**With more than 2 rings - general** Applied if no specific information is available.
E06-A03A	**. Cyclodextrins** Includes all types of cyclodextrin. **2011**
E06-A03B	**. Other** **2011**
E06-B	**SOLE HETERO(S) SULPHUR**
E06-B01	**With 2 rings**
E06-B02	**With more than 2 rings**
E06-C	**SOLE HETEROS O AND S**
E06-C	**General**
E06-D	**SOLE HETERO(S) NITROGEN**
E06-D01	**Indole**
E06-D02	**Quinoline**

E06-D03 **Isoindole or Isoquinoline**
Isoindole or Isoquinoline and its derivatives.

E06-D04 **Others with 2 rings and one N**

E06-D05 **With 2 rings (5+6 membered) and two N**

E06-D06 **With 2 rings (both 6 membered) and two N**

E06-D07 **Others with 2 rings and two N**

E06-D08 **With 2 rings and three N**
Including benzotriazole.

E06-D09 **With 2 rings and four N**

E06-D10 **With 2 rings and > four N**

E06-D11 **Acridine**

E06-D12 **Dibenzo[b,f]azepine**

E06-D13 **Others with 3 rings and one N**

E06-D14 **Phenazine**

E06-D15 **Carbolines; phenanthrolines**
i.e. benzo-1,2:3,4-dipyridines.

E06-D16 **Others with 3 rings and two N**

E06-D17 **With 3 rings and > two N**

E06-D18 **With more than 3 rings**

E06-D **General**
1994

E06-E **SOLE HETEROS O AND N**

E06-E01 **Benzoxazole, benzisoxazoles**

E06-E02 **Benzoxazines**

E06-E03 **Others with 2 rings**

E06-E04 **Phenoxazine**

E06-E05 **Others with more than 2 rings**

E06-F **SOLE HETEROS S AND N**

E06-F01 **Benzothiazole, benzisothiazoles**

E06-F02 **Benzothiazines**

E06-F03 **Others with 2 rings**

E06-F04 **Phenothiazine**

E06-F05 **Others with more than 2 rings**

E06-G **SOLE HETEROS O AND S AND N**

E06-G **General**

E06-H **FUSED RING - GENERAL**

E06-H **General**
This code is used for general disclosures when no specific hetero-ring system is present or when many are present.

E06-S **SPIROFUSED FUSED HETEROCYCLES**
To be applied in conjunction with specific ring code(s) from E06-A to E06-G.
2021

E07 HETEROCYCLIC, MONONUCLEAR

The specific compounds listed include all reduced derivatives and tautomers, unless specifically excluded.

Note

1. For systems containing ring elements other than C, O, S and N see E05.
2. Specific ring systems in a compound are each coded, except that an E07 ring is not coded if an E06 system is present in the same compound.
3. If there is an essential mono hetero-ring and (optionally) another variable mono hetero-ring, only the essential ring is coded, and not the variable ring nor E07-H.

E07-A	**SOLE HETERO(S) OXYGEN**
E07-A	**Oxygen-containing monoheterocyclic - general** **2005**
E07-A01	**Furan excluding tetrahydrofuran**
E07-A02	**Tetrahydro-(furan or pyran) - general**
E07-A02A	**. Tetrahydrofuran and tetrahydropyran** **1986**
E07-A02B	**. Tetrahydrofuran with =O & -O- substituents** **1986**
E07-A02C	**. Tetrahydrofuran with =O, no -O- substituents** **1986**
E07-A02D	**. Tetrahydrofuran with no =O, with -O- substituents** **1986**
E07-A02E	**. Tetrahydrofuran with no =O, no -O-substituents** **1986**
E07-A02F	**. Tetrahydropyran with =O & -O- substituents** **1986**
E07-A02G	**. Tetrahydropyran with =O, no -O- substituents** **1986**
E07-A02H	**. Tetrahydropyran with no =O, with -O- substituents** **1986**
E07-A02J	**. Tetrahydropyran with no =O, no -O-substituents** **1986**
E07-A03	**Other ring with one O – general**
E07-A03A	**. Oxiran from (halo)hydrocarbon** **1975**
E07-A03B	**. Other oxiran** **1975**
E07-A03C	**. Others with one O** e.g. (dihydro)pyran. **1975**
E07-A04	**Ring with more than one O**
E07-B	**SOLE HETERO(S) SULPHUR**
E07-B01	**Thiophene**
E07-B02	**Others with one S**
E07-B03	**Others with more than one S**
E07-C	**SOLE HETEROS O AND S**
E07-C	**General**
E07-D	**SOLE HETERO(S) NITROGEN**
E07-D	**General** **1994**
E07-D01	**With one N, < 5 membered**
E07-D02	**Pyrrole, excluding pyrrolidine**
E07-D03	**Pyrrolidine**
E07-D04	**Pyridine, excluding piperidine - general**
E07-D04A	**. (Hydro)pyridinium, N(V)** N(V) e.g. for N-oxide. **1986**
E07-D04B	**. Pyridine production** **1986**
E07-D04C	**. Pyridine use** **1986**
E07-D04D	**. Di-, tetra-hydropyridine** **1986**
E07-D05	**Piperidine**
E07-D06	**With one N, > 6 membered**
E07-D07	**With > one N, < 5 membered**
E07-D08	**Pyrazole**
E07-D09	**Imidazole - general**
E07-D09A	**. (Hydro)imidazolium, N(V)** N(V) e.g. for N-oxide. **1986**
E07-D09B	**. Imidazole** **1986**
E07-D09C	**. Dihydroimidazole** **1986**
E07-D09D	**. Tetrahydroimidazole** **1986**

E07-D10	**Pyr(id)azine, excluding piperazine**
E07-D11	**Piperazine**
E07-D12	**Pyrimidine**
E07-D13	**Others with more than one N - general**
E07-D13A	**. Production of 1,3,5-triazines** **1975**
E07-D13B	**. Use of 1,3,5-triazines** **1975**
E07-D13C	**. General, excluding 1,3,5-triazines** **1975**
E07-E	**SOLE HETEROS O AND N**
E07-E01	**With one O and one N, < 6 membered**
E07-E02	**Oxazines, excluding morpholine**
E07-E03	**Morpholine**
E07-E04	**Others**
E07-F	**SOLE HETEROS S AND N**
E07-F01	**With one S and one N, < 6 membered**
E07-F02	**Thiazines**
E07-F03	**Others**
E07-G	**SOLE HETEROS O AND S AND N**
E07-G	**General**
E07-H	**MONONUCLEAR HETEROCYCLIC - GENERAL** These codes are used for general disclosures when no specific hetero-ring system is present or when many are present.
E07-H	**General**
E07-H01	**Production when ring linked directly to -C(=O)-, -C(=S)-, -C(=N)-, CN or heteroatom** **1975**
E07-H02	**Others, production** **1975**
E07-H03	**Use of E07-H01 type heterocyclic** **1975**
E07-H04	**Others, use** **1975**
E07-S	**SPIROFUSED MONOCYCLIC HETEROCYCLES** To be applied in conjunction with specific ring code(s) from E07-A to E07-G. **2021**

E08 AROMATIC, POLYCARBOCYCLIC

Includes only those compounds containing more than two carbocyclic rings fused together, at least one of which is 6-membered with 3 conjugated double bonds (or quinone derivatives thereof). Mono- and bi-cyclo-aromatics are coded in E10.

E08-A	**AT LEAST SIX RINGS FUSED**
E08-A	**General**
E08-B	**FIVE RINGS FUSED**
E08-B	**General**
E08-C	**FOUR RINGS FUSED**
E08-C01	**6:6:6:6 carbon atoms per ring**
E08-C02	**Others**
E08-D	**THREE RINGS FUSED**
E08-D01	**6:6:7 carbon atoms per ring**
E08-D02	**6:6:6 carbon atoms per ring**
E08-D03	**Others**
E08-H	**AROMATIC POLYCARBOCYCLE GENERAL**
E08-H	**General**

E09 ALICYCLIC, POLYCARBOCYCLIC

Includes only compounds containing more than two carbocyclic rings fused together, other than aromatics (see E08). Mono- and bi- cycloalkyl compounds are coded in E10.

E09-A	**AT LEAST SIX RINGS FUSED**
E09-A	**General**
E09-B	**FIVE RINGS FUSED**
E09-B	**General**
E09-C	**FOUR RINGS FUSED**
E09-C01	**6:6:6:6 carbon atoms per ring**
E09-C02	**Others**
E09-D	**THREE RINGS FUSED**
E09-D01	**6:6:6 carbon atoms per ring**
E09-D02	**Others**
E09-H	**ALICYCLIC POLYCARBOCYCLE GENERAL**
E09-H	**General** **2002**

E10 AROMATIC AND CYCLO ALIPHATIC (MONO AND BICYCLIC ONLY), ALIPHATIC

In E10, compounds are coded according to the type of functional group present (if any). Only one code is applied to a specific compound according to the following order of priority:-

E10-A > E10-B –> E10-J and 01 > 02 > 03 etc.

Thus E10-A01 is the highest, and E10-J02D is the lowest priority code.

Note

1. For acidic or basic salts see the parent compounds (i.e. amines, acids, etc.).
2. For all cyclic derivatives of the groups listed in section E10, see E01 to E07.
3. For groups not listed in section E10, the highest priority segment of the group is used as its coding feature. For example, semi-carbazones are coded E10-A13B only, and **not** E10-A19 nor E10-A20.
4. From 198601 the more general codes E10-B01, -B02, -B03, -B04, -C04 and -H02 were introduced and are used only where e.g. unspecified 'amines' are given, to save using many codes.

E10-A	**RARER CHEMICAL GROUPS**
E10-A01	**Sulfonium, halonium, carbonium, oxonium, aminimide, ylid, free radical** Includes carbanion.
E10-A02	**Halogen bonded to Hal, N or O**
E10-A03	**Nitrogen oxide, nitroso, nitrone, azoxy, nitrolic acid** Oxygen atom(s) may be replaced by sulfur atom(s).
E10-A03A	**. Nitrone, nitrolic acid** **2002**
E10-A03B	**. Nitrogen oxide ($R3N^{V}=O$), azoxy (R-N=N(=O)-R)** Excluding nitrones, nitrolic acids **2002**
E10-A03C	**. Nitroso ($R\text{-}N^{III}=O$)** Excluding nitrones, nitrolic acids. **2002**
E10-A04	**Peroxide, polysulfide - general** Excluding thiosulfate, etc.
E10-A04A	**. Polysulfide** **1986**

E10-A04B **. Peroxide**
1986

E10-A04B1 **.. Aromatic peroxides, gen**
Peroxides of aromatic acids or alcohols, e.g. R-OO- ; RCO-O-O-); R-SO2-O-O-
2002

E10-A04B1A **... Diacylperoxides**
e.g. RCO-O-O-CO-R); R-SO2-O-O-SO2-R
2002

E10-A04B1B **... Peresters**
Includes percarbonic acid esters (aromatic) e.g. R-CO-O-O-R, R-SO2-O-O-R.
2002

E10-A04B1C **... Peracids**
Includes percarbonic acid (aromatic) e.g. R-CO-O-O-H; R-SO2-O-O-H.
2002

E10-A04B1D **... Peroxides, other**
e.g. Ph-O-O-tBu.
2002

E10-A04B1E **... Hydroperoxides, other**
e.g. Ph-O-O-H.
2002

E10-A04B2 **.. (Cyclo)aliphatic peroxides, gen**
Peroxides of non-Aromatic Acids or alcohols.
2002

E10-A04B2A **... Diacylperoxides**
e.g. RCO-O-O-CO-R; R-SO2-O-O-SO2-R.
2002

E10-A04B2B **... Peresters**
Include percarbonic acid esters (aliphatic) e.g. R-CO-O-O-R, R-SO2-O-O-R.
2002

E10-A04B2C **... Peracids**
Includes percarbonic acid (aliphatic) e.g. R-CO-O-O-H; R-SO2-O-O-H.
2002

E10-A04B2D **... Peroxides, other**
e.g. PhCH2-O-O-tBu;
2002

E10-A04B2E **... Hydroperoxides, other**
e.g. tBu-O-O-H.
2002

E10-A05 **Nitrate, nitrite**
Oxygen atom(s) may be replaced by sulfur atom(s).

E10-A06 **Quinone (derivative)**
1970-1993
Now coded as: E10-A06A,E10-A06B

E10-A06A **. Quinone**
1994
Previous code(s): E10-A06

E10-A06B **. Quinone derivative (except those with higher priority)**
1994
Previous code(s): E10-A06

E10-A07 **Sugar**
Oxygen atom(s) may be replaced by sulfur atom(s). This code includes all derivatives except those of higher priority. Sugars containing free ketonic or aldehyde function are coded in open chain (not cyclic) form. For example, glucose is coded E10-A07 but methyl glucoside is coded E07-A02H.

E10-A07A **. Unmodified sugar**
Including ethers and esters thereof.
2005

E10-A07B **. Sugar alcohol**
Including ethers and esters thereof.
2005

E10-A07C **. Sugar acid**
Including ethers and esters thereof.
2005

E10-A07D **. Sugar amine**
2005

E10-A07E **. Other sugar derivatives**
2005

E10-A08 **Amide of sulfur acid - general**

E10-A08A **. Aromatic ring to N**
1986

E10-A08B **. Aromatic ring to S**
1986

E10-A08C **. Other**
1986

E10-A09A **Sulfuric(ous) acid**
Oxygen atom(s) may be replaced by sulfur atom(s). This code includes all derivatives except those of higher priority.

E10-A09A1 **. Ether sulfates**
Sulfuric acid esters of ethoxylated alcohols.
2005

E10-A09A2 **. Aliphatic sulfates**
2005

E10-A09A3 **. Aromatic sulfates**
2005

E10-A09A4 **. Other derivatives**
2005

E10-A09B **Sulfonic acid - general**
Codes E10-A09B to E10-A09B5 include all derivatives except those of higher priority and oxygen atom(s) may be replaced by sulfur atom(s).

E10-A09B1 **. (Thio)sulfonic ester, halide, anhydride; thiosulfonic acid**
1975

E10-A09B2 **. Sulfonic acid - with hetero group (atom) - general**
1975

E10-A09B6 **.. fused ring(s) present**
1986

E10-A09B7 **.. single ring(s) present**
1986

E10-A09B8 **.. no ring(s) present**
N.B. These last three codes are subdivisions of E10-A09B2.
1986

E10-A09B3 **. Sulfonic acid - with no hetero group (atom), production**
1975

E10-A09B4 **. Aromatic sulfonic acid - with no hetero group (atom), use**
1975

E10-A09B5 **. (Cyclo)aliphatic sulfonic acid - with no hetero group (atom), use**
1975

E10-A09C **Other S acid**
Oxygen atom(s) may be replaced by sulfur atom(s). This code includes all derivatives except those of higher priority.

E10-A10 **Sulfone, sulfoxide - general**
Oxygen atom(s) may be replaced by sulfur atom(s).

E10-A10A **. Sulfoxide**
1986

E10-A10B **. Diaryl sulfone**
Both aryl groups attached directly to one -SO2-.
1986

E10-A10C **. Monoaryl sulfone**
Aryl group attached directly to SO2.
1986

E10-A10D **. Other**
1986

E10-A11A **Thiocarbonic acid**
Codes E10-A11A to E10-A12C2 include all corresponding derivatives except those of higher priority.
1970-1993
Now coded as: E10-A11A1, E10-A11A2

E10-A11A1 **. Thiocarbonic acid, production**
1994
Previous code(s): E10-A11A

E10-A11A2 **. Thiocarbonic acid, use**
1994
Previous code(s): E10-A11A

E10-A11B **Carbonic acid**
1970-1993
Now coded as: E10-A11B1, E10-A11B2

E10-A11B1 **. Carbonic acid, production**
1994
Previous code(s): E10-A11B

E10-A11B2 **. Carbonic acid, use**
1994
Previous code(s): E10-A11B

E10-A12A **Dithiocarbamic acid**
1970-1993
Now coded as: E10-A12A1, E10-A12A2

E10-A12A1 **. Dithiocarbamic acid, production**
1994
Previous code(s): E10-A12A

E10-A12A2 **. Dithiocarbamic acid, use**
1994
Previous code(s): E10-A12A

E10-A12B **Monothiocarbamic acid**
1970-1993
Now coded as: E10-A12B1, E10-A12B2

E10-A12B1 **. Monothiocarbamic acid, production**
1994
Previous code(s): E10-A12B

E10-A12B2 **. Monothiocarbamic acid, use**
1994
Previous code(s): E10-A12B

E10-A12C **Carbamic acid**
1970-1993
Now coded as: E10-A12C1, E10-A12C2

E10-A12C1 **. Carbamic acid, production**
1994
Previous code(s): E10-A12C

E10-A12C2 **. Carbamic acid, use**
1994
Previous code(s): E10-A12C

E10-A13A **(Iso)thiourea**
1970-1993
Now coded as: E10-A13A1, E10-A13A2

E10-A13A1 **. (Iso)thiourea, production**
1994
Previous code(s): E10-A13A

E10-A13A2 **. (Iso)thiourea, use**
1994
Previous code(s): E10-A13A

E10-A13B **(Iso)urea**
1970-1993
Now coded as: E10-A13B1, E10-A13B2

E10-A13B1 **. (Iso)urea, production**
1994
Previous code(s): E10-A13B

E10-A13B2 **. (Iso)urea, use**
1994
Previous code(s): E10-A13B

E10-A14 **(Iso)cyanate, nitrile oxide**
Oxygen atom may be replaced by sulfur atom.
1970-1993
Now coded as: E10-A14A, E10-A14B

E10-A14A **. (Iso)cyanate, nitrile oxide, production**
Oxygen atom may be replaced by sulfur atom.
1994
Previous code(s): E10-A14

E10-A14B **. (Iso)cyanate, nitrile oxide, use**
Oxygen atom may be replaced by sulfur atom.
1994
Previous code(s): E10-A14

E10-A15 **(Iso)cyanide - general**

E10-A15A **. Poly(iso)cyanide and monoisocyanide**
1975

E10-A15B **. Cyanide with aliphatic unsaturation, production**
1975

E10-A15C **. Cyanide with aliphatic unsaturation, use**
1975

E10-A15D **. Other cyanide, production with CN formation**
1975

E10-A15E **. Other cyanide, production without CN formation**
CN group is in a starting material and remains bonded to the same atom when in the product.
1975

E10-A15F **. Other cyanide, use**
1975

E10-A16 **Azide, azo, diazo(nium)**
1970-1993
Now coded as: E10-A16A, E10-A16B

E10-A16A **. Azide, azo, diazo(nium), production**
1994
Previous code(s): E10-A16

E10-A16B **. Azide, azo, diazo(nium), use**
1994
Previous code(s): E10-A16

E10-A17 **Biguanide, guanidine, amidine**
1970-1993
Now coded as: E10-A17A, E10-A17B

E10-A17A **. Biguanide, guanidine, amidine, production**
1994
Previous code(s): E10-A17

E10-A17B **. Biguanide, guanidine, amidine, use**
1994
Previous code(s): E10-A17

E10-A18 **Hydroxylamine**
1970-1993
Now coded as: E10-A18A, E10-A18B

E10-A18A **. Hydroxylamine, production**
Include organic hydroxamic acid production.
1994
Previous code(s): E10-A18

E10-A18B **. Hydroxylamine, use**
Include organic hydroxamic acid use.
1994
Previous code(s): E10-A18

E10-A19 **Hydrazine**
1970-1993
Now coded as: E10-A19A, E10-A19B

E10-A19A **. Hydrazine, production**
Covers hydrazines and hydrazones production. Hydrazine itself is inorganic, so one end at least must be attached to an organic residue. Inorganic hydrazine codes E31-H04.
1994
Previous code(s): E10-A19

E10-A19B . **Hydrazine, use**
Covers hydrazines and hydrazones use. Hydrazine itself is inorganic, so one end at least must be attached to an organic residue. Inorganic hydrazine codes E31-H04.
1994
Previous code(s): E10-A19

E10-A20 **Imine**
1970-1993
Now coded as: E10-A20A,E10-A20B

E10-A20A . **Imine, production**
1994
Previous code(s): E10-A20

E10-A20B . **Imine, use**
1994
Previous code(s): E10-A20

E10-A21 **Quaternary ammonium (bis or poly)**
Where a patent claims amines and their quaternary ammonium salts, only the code corresponding to the parent amine is applied. Thus to obtain all relevant quaternary compounds, two searches must be made.

E10-A22 **Quaternary ammonium (mono) - general**

E10-A22A . **Aromatic ring present**
1986

E10-A22B . **No aromatic ring - general**
1986

E10-A22C . **No aromatic ring - with amine**
1986

E10-A22D . **No aromatic ring - with acid (derivative)**
1986

E10-A22E . **No aromatic ring - with OH, ether**
1986

E10-A22F . **No aromatic ring - with other hetero group (atom)**
1986

E10-A22G . **No aromatic ring - with no hetero atom(s)**
1986

E10-A23 **Acetal, ketal**
Including those with C atom in a ring. Oxygen atom(s) may be replaced by sulfur atom(s).
1970-1993
Now coded as: E10-A23A, E10-A23B

E10-A23A . **Acetal, ketal, production**
Including those with C atom in a ring. Oxygen atom(s) may be replaced by sulfur atom(s).
1994
Previous code(s): E10-A23

E10-A23B . **Acetal, ketal, use**
Including those with C atoms in a ring. Oxygen atom(s) may be replaced by sulfur atom(s).
1994
Previous code(s): E10-A23

E10-A24 **Imide**
Oxygen atom(s) may be replaced by sulfur atom(s).
1970-1993
Now coded as: E10-A24A, E10-A24B

E10-A24A . **Imide, production**
Oxygen atom(s) may be replaced by sulfur atom(s).
1994
Previous code(s): E10-A24

E10-A24B . **Imide, use**
Oxygen atom(s) may be replaced by sulfur atom(s).
1994
Previous code(s): E10-A24

E10-A25 **Acid anhydride, halide (carboxylic only)**
Oxygen atom(s) may be replaced by sulfur atom(s).
1970-1993
Now coded as: E10-A25A1, E10-A25A2, E10-A25B1, E10-A25B2

E10-A25A1 . **Acid anhydride, production**
Oxygen atom(s) may be replaced by sulfur atom(s).
1994
Previous code(s): E10-A25

E10-A25A2 . **Acid anhydride, use**
Oxygen atom(s) may be replaced by sulfur atom(s).
1994
Previous code(s): E10-A25

E10-A25B1 . **Acid halide, production**
Oxygen atom(s) may be replaced by sulfur atom(s).
1994
Previous code(s): E10-A25

E10-A25B2 . **Acid halide, use**
Oxygen atom(s) may be replaced by sulfur atom(s).
1994
Previous code(s): E10-A25

E10-B **AMINES**

E10-B01 **Polyamine - general**
1986

E10-B01A **. Polyamine, at least 1 amine 'aromatic' - general**
i.e. amino N on aromatic ring C.

E10-B01A1 **.. with acid (derivative)**
1986

E10-B01A2 **.. With OH, ether**
1986

E10-B01A3 **.. other, production**
1986

E10-B01A4 **.. other, use**
1986

E10-B01B **. Polyamine with no amine aromatic- general**

E10-B01C **.. Non-aromatic Polyamine, with carboxylic acid, ester or amide group**
1975

E10-B01C1 **... With carboxylic acid group**
2002

E10-B01C2 **... With carboxylic acid ester group**
2002

E10-B01C3 **... With carboxylic acid amide group**
2002

E10-B01D **.. with hydroxy, mercapto or (thio)ether group**
1975

E10-B01E **.. others**
1975

E10-B02 **Amino-acid, -ester or -amide - general**
1986

E10-B02A **. Aromatic amino-acid, -ester or -amide group**
Oxygen atom(s) may be replaced by sulfur atom(s).

E10-B02A1 **.. With carboxylic acid group**
2002

E10-B02A2 **.. With carboxylic acid ester group**
2002

E10-B02A3 **.. With carboxylic acid amide group**
2002

E10-B02B **. Amino-acid, -ester or -amide (amine not aromatic) - general**
Oxygen atom(s) may be replaced by sulfur atom(s).

E10-B02C **. mixtures containing at least 3 naturally occurring amino acids**
1975

E10-B02D **. Alpha-amino acid (or derivative of carboxyl group) general. Primary amine, only one side-chain which...**
1975

E10-B02D1 **.. contains S**
e.g. Cys, Met.
1986

E10-B02D2 **.. contains benzene and phenolic OH**
e.g. Tyr.
1986

E10-B02D3 **.. is benzyl unsubstituted**
i.e. Phe.
1986

E10-B02D4 **.. contains alcohol (derivative)**
e.g. Ser, Thr.
1986

E10-B02D5 **.. contains acid (derivative)**
e.g. Asp, Glu.
1986

E10-B02D6 **.. is alkyl unsubstituted**
e.g. Ala, Gly, Ile, Leu, Val.
1986

E10-B02D7 **.. Primary amine other**
1986

E10-B02D8 **.. Secondary, tertiary amine**
1986

E10-B02E **. others**
Oxygen atom(s) may be replaced by sulfur atom(s).
1975

E10-B03 **Amino-phenol, - alcohol or ether - general**
Oxygen atom(s) may be replaced by sulfur atom(s).
1986

E10-B03A **. Amino-phenol, - alcohol or ether – general (amine aromatic)**
N directly attached to aromatic ring; Oxygen atom(s) may be replaced by sulfur atom(s).

E10-B03A1 **.. Aromatic amino-phenol**
2002

E10-B03A2 **.. Aromatic amino-alcohol**
e.g. Ph-NH-C2H4-OH.
2002

E10-B03A3 **.. Aromatic amino-ether**
e.g. Ph-NH-C2H4-OR.
2002

E10-B03B **. Amino-phenol, - alcohol or ether – general (amine not aromatic)**
N **not** directly attached to aromatic ring; Oxygen atom(s) may be replaced by sulfur atom(s).

E10-B03B1 **.. Amino-phenol**
e.g. NH2C2H4-O-p C6H4-OH.
2002

E10-B03B2 **.. Amino-alcohol**
Includes mono, di and tri alkanolamines e.g. NH2-C2H4-OH.
2002

E10-B03B3 **.. Aminopolyether**
e.g. NH2-(C2H4-O)nR.
2002

E10-B03B4 **.. Amino-ether**
e.g. NH2-C2H4-OR
2002

E10-B04 **Amine mono - general**
1986

E10-B04A **. Other aromatic amine**
1970-1993
Now coded as: E10-B04A1, E10-B04A2

E10-B04A1 **.. Other aromatic amine, production**
1994
Previous code(s): E10-B04A

E10-B04A2 **.. Other aromatic amine, use**
1994
Previous code(s): E10-B04A

E10-B04B **. Other non-aromatic amine – general**

E10-B04C **. Production of other non-aromatic amine**
1975

E10-B04C1 **.. Primary amine**
2002

E10-B04C2 **.. Secondary or tertiary amine**
2002

E10-B04D **. Use of unsubstituted aliphatic amine**
Excluding cycloaliphatic.
1975

E10-B04D1 **.. Primary amine**
2002

E10-B04D2 **.. Secondary or tertiary amine**
2002

E10-B04E **. Use of other aliphatic amine**
Including cycloaliphatic, substituted aliphatic.
1975

E10-B04E1 **.. Primary amine**
2002

E10-B04E2 **.. Secondary or tertiary amine**
2002

E10-C **CARBOXYLIC ACIDS (CA)**

E10-C01 **Thio-CA**

E10-C02 **Poly-CA - general**

E10-C02A **. Citric or isocitric acid**
1975

E10-C02B **. Others with > 2 carboxy groups**
1975

E10-C02C **. Di-CA with carbocyclic ring(s)**
1975-1993
Now coded as: E10-C02C1, E10-C02C2

E10-C02C1 **.. Di-CA with carbocyclic ring(s), production**
Applied if both subcodes below could be applied.
1994
Previous code(s): E10-C02C

E10-C02C1A **... Di-CA with aromatic ring, production**
2010

E10-C02C1B **... Di-CA with cycloaliphatic ring, production**
2010

E10-C02C2 **.. Di-CA with carbocyclic ring(s), use**
Applied if both subcodes below could be applied.
1994
Previous code(s): E10-C02C

E10-C02C2A **... Di-CA with aromatic ring, use**
2010

E10-C02C2B **... Di-CA with cycloaliphatic ring, use**
2010

E10-C02D **. Oxalic acid; unsubstituted alkylene di-CA**
1975-1993
Now coded as: E10-C02D1, E10-C02D2

E10-C02D1 **.. Oxalic acid**
1994
Previous code(s): E10-C02D

E10-C02D2 **.. Unsubstituted alkylene di-CA**
1994
Previous code(s): E10-C02D

E10-C02E . **Other di-CA, production**
1975

E10-C02F . **Other di-CA, use**
1975

E10-C03 **CA with phenol or phenolic ester or ether group(s)**
Oxygen atom(s) may be replaced by sulfur atom(s).

E10-C04 **Other carboxylic acid - general**
1986

E10-C04A . **CA with cycloaliphatic ring system**

E10-C04B . **Hydroxy, aldehyde or ketonic CA (or ethers thereof) with an aromatic ring**
Oxygen atom(s) may be replaced by sulfur atom(s).

E10-C04C . **Other CA with aromatic ring**

E10-C04D . **Acyclic hydroxy, aldehyde or ketonic CA and acyclic ether thereof - general**
Oxygen atom(s) may be replaced by sulfur atom(s).

E10-C04D1 .. **aldehyde, ketone present**
1986

E10-C04D2 .. **S present**
1986

E10-C04D3 .. **ether present**
1986

E10-C04D4 .. **alpha OH acid**
1986

E10-C04D5 .. **other OH acid**
1986

E10-C04D6 .. **Acid contains amide substituent**
Acyclic carboxylic acid with amide functional group.
2019

E10-C04E . **Other acyclic mono-CA - general**

E10-C04F . **substituted acyclic acid**
1975

E10-C04G . **(Meth)acrylic acid**
1975

E10-C04G1 .. **(Meth)acrylic acid, production**
2002

E10-C04G1A ... **Acrylic acid, production**
Specifically AA production
2002

E10-C04G1B ... **Methacrylic acid, production**
Specifically MA production
2002

E10-C04G2 .. **(Meth)acrylic acid, use**
2002

E10-C04G2A ... **Acrylic acid, use**
Use of AA specifically
2002

E10-C04G2B ... **Methacrylic acid, use**
Use of MA specifically
2002

E10-C04H . **Other unsaturated unsubstituted acid**
1975

E10-C04J . **Formic, acetic acid**
1975-1993
Now coded as: E10-C04J1, E10-C04J2

E10-C04J1 .. **Formic acid - general**
1994
Previous code(s): E10-C04J

E10-C04J1P ... **Formic acid, production**
2002

E10-C04J1U ... **Formic acid, use**
2002

E10-C04J2 .. **Acetic acid - general**
1994
Previous code(s): E10-C04J

E10-C04J2P ... **Acetic acid, production**
2002

E10-C04J2U ... **Acetic acid, use**
2002

E10-C04K . **Other acid, production**
1975

E10-C04L . **Other acid, use - general**
1975

E10-C04L1 .. **2-9C**
Excluding C of carboxy.
1986

E10-C04L2 .. **10+C**
Excluding C of carboxy.
1986

E10-D **ALDEHYDES AND CARBOXYLIC AMIDES**

E10-D01 **Aldehyde - general**
Oxygen atom(s) may be replaced by sulfur atom(s).

E10-D01A . **(Meth)acrolein, production**
1975

E10-D01B . **Other aldehyde, production by olefin oxidation**
1975

E10-D01C . **Other aldehyde, production by other methods**
Oxygen atom(s) may be replaced by sulfur atom(s).
1975

E10-D01D **. Use**
Oxygen atom(s) may be replaced by sulfur atom(s).
1975

E10-D02 **Carboxylic amide, thio**

E10-D03 **Carboxylic amide - general**

E10-D03A **. Polyamide**
1975

E10-D03A1 **.. Polyamide containing aromatic ring(s)**
2011

E10-D03A2 **.. Polyamide not containing aromatic ring(s)**
2011

E10-D03B **. Containing phenol group(s)**
1975

E10-D03C **. Amide of unsubstituted fatty acid, optionally unsaturated, optionally N-substituted**
1975

E10-D03C1 **.. Formamides, opt. N-substituted**
2002

E10-D03C2 **.. Amide of >1C unsubstituted fatty acid, optionally unsaturated, N-substituted by polyether**
Including polyetheralcohols, esters; e.g. R-CO1-N (-R'-O)n-R', R' = H, C, -CO1-R, etc.
2002

E10-D03C3 **.. Amide of >1C unsubstituted fatty acid, optionally unsaturated, optionally N-substituted**
Excluding N-polyether derivatives (coded E10-D03C2)
2002

E10-D03D **. Others**
1975

E10-E **HYDROXY COMPOUNDS**
Within section E10-E02 the term **naphthol** includes all aromatic bicyclic compounds with phenolic OH. e.g. 1H-Inden-4-ol or 5, 6, 7, 8-tetrahydro-1-naphthol.

E10-E01 **Thiophenols, thionaphthols**

E10-E01P **. Thiophenols, thionaphthols production**
2002

E10-E01U **. Thiophenols, thionaphthols – use**
2002

E10-E02 **Phenol - general**
1970-1993
Now coded as: E10-E02P, E10-E02U

E10-E02P **Phenol, naphthol, general, production**
1994
Previous code(s): E10-E02

E10-E02A **. Polyphenol, polynaphthol, production**
1975

E10-E02B **. Phenol or naphthol (optionally substituted only by hydrocarbyl) production**
1975-1993
Now coded as: E10-E02B1, E10-E02B2

E10-E02B1 **.. Phenol (optionally substituted only by hydrocarbyl) production**
1994
Previous code(s): E10-E02B

E10-E02B2 **.. Naphthol (optionally substituted only by hydrocarbyl) production**
1994
Previous code(s): E10-E02B

E10-E02C **. Other phenol, production**
1975-1993
Now coded as: E10-E02C1, E10-E02C2

E10-E02C1 **.. Other phenol, production**
1994
Previous code(s): E10-E02C

E10-E02C2 **.. Other naphthol, production**
1994
Previous code(s): E10-E02C

E10-E02U **Phenol, naphthol, general - use**
1994
Previous code(s): E10-E02

E10-E02D **. Polyphenol, polynaphthol, use - general**
1975

E10-E02D1 **.. nitro, S, X present**
1986

E10-E02D2 **.. O present, other than phenol**
1986

E10-E02D3 **.. with 3 or more phenolic OH**
1986

E10-E02D4 **.. with 2 phenolic OH and 2 or more ring systems**
1986

E10-E02D5 **.. with 2 phenolic OH and 1 ring system**
1986

E10-E02E **. Phenol or naphthol (optionally substituted only by hydrocarbyl), use**
1975-1993
Now coded as: E10-E02E1, E10-E02E2

E10-E02E1 **.. Phenol (optionally substituted only by hydrocarbyl) use**
1994
Previous code(s): E10-E02E

E10-E02E2 **.. Naphthol (optionally substituted only by hydrocarbyl) use**
1994
Previous code(s): E10-E02E

E10-E02F **. Other phenol, use**
1975-1993
Now coded as: E10-E02F1, E10-E02F2

E10-E02F1 **.. Other phenol, use**
1994
Previous code(s): E10-E02F

E10-E02F2 **.. Other naphthol, use**
1994
Previous code(s): E10-E02F

E10-E03 **Thioalcohols - general**

E10-E03A **. Polythiol contg. carboxylic ester gp, production**
2002

E10-E03B **. Unsubstituted alkane polythiol, production**
2002

E10-E03C **. Other polymercaptoalkanes, production**
2002

E10-E03D **. Monothiol containing carboxylic ester gp, production**
2002

E10-E03E **. Unsubstituted alkanethiol, production**
2002

E10-E03F **. Other alkanethiol production**
2002

E10-E03G **. Polythiol contg. carboxylic ester gp, use**
2002

E10-E03H **. Unsubstituted alkane polythiol, use**
2002

E10-E03J **. Other polymercaptoalkanes, use**
2002

E10-E03K **. Monothiol containing carboxylic ester gp, use**
2002

E10-E03L **. Unsubstituted alkanethiol, use**
2002

E10-E03M **. Other alkanethiol, use**
2002

E10-E03P **. Thiol production, general**
Covers very generic information, or when three or more thiol production codes are applicable.
2014

E10-E03U **. Thiol use, general**
Covers very generic information, or when three or more thiol use codes are applicable.
2014

E10-E04 **Alcohol - general**

E10-E04A **. Polyhydric containing carboxylic ester group(s) production**
1975

E10-E04B **. Unsubstituted polyhydroxy-alkane, production**
1975

E10-E04C **. Other polyhydric alcohol, production**
1975

E10-E04C1 **.. Polyetherpolyol, production**
Incl polyglycol-, polyglyceryl-, ethers.
2002

E10-E04C2 **.. Other polyhydric alcohol, production**
2002

E10-E04D **. Monohydric containing carboxylic ester group(s), production**
1975

E10-E04D1 **.. Monohydric contg polyetherpolyol carboxylic ester group(s), production**
[RCO(-O-R')n-O]m-R-OH (m>0, n>1).
2002

E10-E04D2 **.. Other monohydric alcohol containing carboxylic ester(s), production**
2002

E10-E04E **. Unsubstituted alkanol production - general**
1975

E10-E04E1 **.. methanol**
1986

E10-E04E2 **.. ethanol**
1986

E10-E04E3 **.. propanols, butanols**
1986

E10-E04E4 **.. with 5-10C**
1986

E10-E04E5 **.. with 11 or more C**
1986

E10-E04F . **Other monohydric alcohol, production**
1975

E10-E04G . **Polyhydric, containing carboxylic ester group(s) use**
1975

E10-E04H . **Unsubstituted polyhydroxy-alkane, use**
1975

E10-E04H1 .. **Diol**
2005

E10-E04H2 .. **Triol**
2005

E10-E04H3 .. **4 or more hydroxy**
Not including sugar alcohol (see E10-A07B).
2005

E10-E04J . **Other polyhydric alcohol, use**
1975

E10-E04J1 .. **Ring present**
2005

E10-E04J2 .. **Ketone, nitro, halogen or unsaturation present**
2005

E10-E04J3 .. **Ether present, poly**
2005

E10-E04J4 .. **Ether present, mono**
2005

E10-E04K . **Monohydric, containing carboxylic ester group(s) use**
1975

E10-E04L . **Unsubstituted alkanol, use - general**
1975

E10-E04L1 .. **methanol**
1986

E10-E04L2 .. **ethanol**
1986

E10-E04L3 .. **propanols, butanols**
1986

E10-E04L4 .. **with 5-10C**
1986

E10-E04L5 .. **with 11 or more C**
1986

E10-E04M . **Other monohydric alcohol, use -general**
1975

E10-E04M1 .. **ring(s) present**
1986

E10-E04M2 .. **ketone, nitro, halogen or unsaturation present**
1986

E10-E04M3 .. **ether present, poly**
1986

E10-E04M4 .. **ether present, mono**
1986

E10-F KETONES

E10-F01 **Thioketone**

E10-F02 **Ketone – general**

E10-F02A . **With carbocyclic ring(s) - general**
1975

E10-F02A1 .. **ketone on ring**
1986

E10-F02A2 .. **ketone on chain of aromatic compound**
1986

E10-F02A3 .. **ketone on chain of alicyclic compound**
1986

E10-F02B . **Other ketone, production**
1975

E10-F02C . **Other ketone, use**
1975

E10-G CARBOXYLIC ESTERS AND NITRO COMPOUNDS
1994

E10-G01 **Thiocarboxylic ester**

E10-G02 **Carboxylic ester – general**

E10-G02P . **Production of esters - general**
2005

E10-G02A . **With carbocyclic ring, production**
1975-1993
Now coded as: E10-G02A1, E10-G02A2

E10-G02A1 .. **With aromatic ring, production**
1994
Previous code(s): E10-G02A

E10-G02A2 .. **With alicyclic ring, production**
1994
Previous code(s): E10-G02A

E10-G02B . **Other polyester, production**
1975-1993
Now coded as: E10-G02B1, E10-G02B2

E10-G02B1 .. **Aliphatic polyester with halogen or (thio)ether group(s), production**
1994
Previous code(s): E10-G02B

E10-G02B2 .. **Other aliphatic polyester production**
1994
Previous code(s): E10-G02B

E10-G02C **. Aliphatic monoester with halogen or (thio)ether group(s), production**
1975

E10-G02D **. Unsaturated monoester, production**
1975

E10-G02D1 **.. Monoesters of unsaturated alcohols and unsaturated acids (e.g. vinyl acrylate), production**
2002

E10-G02D2 **.. Other monoesters of unsaturated alcohols (e.g. vinyl acetate), production**
2002

E10-G02D3 **.. (Meth)acrylic acid esters, production**
2002

E10-G02D4 **.. Monoesters of other unsaturated acids, production**
2002

E10-G02E **. Other aliphatic monoester, production**
1975

E10-G02U **. Use of esters - general**
2005

E10-G02F **. Ester with carbocyclic ring(s), use**
1975-1993
Now coded as: E10-G02F1, E10-G02F2

E10-G02F1 **.. Ester with aromatic ring, use**
1994
Previous code(s): E10-G02F

E10-G02F2 **.. Ester with alicyclic ring, use**
1994
Previous code(s): E10-G02F

E10-G02G **. Other polyester, use**
1975-1993
Now coded as: E10-G02G1, E10-G02G2

E10-G02G1 **.. Aliphatic polyester with halogen or (thio)ether group(s), use**
1994
Previous code(s): E10-G02G

E10-G02G2 **.. Other aliphatic polyester, use**
1994
Previous code(s): E10-G02G

E10-G02H **. Other monoester, use**
1975-1993
Now coded as: E10-G02H1, E10-G02H2

E10-G02H1 **.. Aliphatic monoester with halogen or (thio)ether group(s), use**
1994
Previous code(s): E10-G02H

E10-G02H2 **.. Other aliphatic monoester, use gen**
1994
Previous code(s): E10-G02H

E10-G02H2A **... Monoesters of unsaturated alcohols and unsaturated acids (e.g. vinyl acrylate), use**
2002

E10-G02H2B **... Other monoesters of unsaturated alcohols (e.g. vinyl acetate), use**
2002

E10-G02H2C **... (Meth)acrylic acid esters), use**
2002

E10-G02H2D **... Monoesters of other unsaturated acids, use**
2002

E10-G02H2E **... Saturated aliphatic esters (other), use**
2002

E10-G03 **Nitro compounds, general**
One of the more specific codes are always applied in preference, unless 3 or more of them could be applied to the patent.
1994

E10-G03A **. With carbocyclic ring, production**
1994
Previous code(s): E10-G03

E10-G03B **. Other nitro, production**
1994
Previous code(s): E10-G03

E10-G03C **. With carbocyclic ring, use**
1994
Previous code(s): E10-G03

E10-G03D **. Other nitro, use**
1994
Previous code(s): E10-G03

E10-H **ETHERS AND HALOGEN COMPOUNDS**

E10-H01 **Ether and thioether - general**

E10-H01A **. Thioether with halogen**
1986

E10-H01B **. Thioether with no halogen**
1986

E10-H01C **. Ether with halogen**
1986

E10-H01D **. Ether with no halogen, poly**
1986

E10-H01E **. Ether with no halogen, mono**
1986

E10-H02 **Halogen - general**
From 199401, a new set of codes have been applied to halogen compounds which do not follow the same priority system, nor are they a subdivision, of the previous E10-H02 section codes.
1986-1993

E10-H02A **. F, bonded to aromatic ring**
1970-1993

E10-H02B **. F, not bonded to aromatic ring**
1970-1993

E10-H02C **. Br or I, bonded to aromatic ring**
1970-1993

E10-H02D **. Br or I, not bonded to aromatic ring**
1970-1993

E10-H02E **. Cl, bonded to aromatic ring**
1970-1993

E10-H02F **. Cl, not bonded to aromatic ring - general**
1970-1993

E10-H02G **.. containing carbocyclic ring(s); poly-chloro-alkene and -alkyne**
1975-1993

E10-H02H **.. polychloroalkane**
1975-1993

E10-H02J **.. monochloro-alkene and -alkyne**
1975-1993

E10-H02K **.. monochloro-alkane**
1975-1993

E10-H03 **Halogen production - general**
1994
Previous code(s): E10-H02

E10-H03A **. F only production - general**
1994
Previous code(s): E10-H02, E10-H02A, E10-H02B

E10-H03A1 **.. F only, F bonded to aromatic ring, production**
1994
Previous code(s): E10-H02A

E10-H03A2 **.. F only, other carbocyclic (including F on chain of aromatic ring), production**
1994
Previous code(s): E10-H02B

E10-H03A3 **.. F only, aliphatic, production**
1994
Previous code(s): E10-H02B

E10-H03B **. F + Cl only production - general**
1994
Previous code(s): E10-H02, E10-H02A, E10-H02B

E10-H03B1 **.. F + Cl only, carbocyclic, production**
1994
Previous code(s): E10-H02A, E10-H02B

E10-H03B2 **.. F + Cl only, aliphatic, production**
1994
Previous code(s): E10-H02B

E10-H03C **. Cl only production - general**
1994
Previous code(s): E10-H02, E10-H02E, E10-H02F

E10-H03C1 **.. Cl only, Cl bonded to aromatic ring, production**
1994
Previous code(s): E10-H02E

E10-H03C2 **.. Cl only, other carbocyclic (including Cl on chain of aromatic ring), production**
1994
Previous code(s): E10-H02F, E10-H02G

E10-H03C3 **.. Cl only, unsaturated aliphatic, production**
1994
Previous code(s): E10-H02G, E10-H02J

E10-H03C4 **.. Polychloroalkane, production**
1994
Previous code(s): E10-H02H

E10-H03C5 **.. Monochloroalkane, production**
1994
Previous code(s): E10-H02K

E10-H03D **. Other halogen compound production - general**
1994
Previous code(s): E10-H02

E10-H03D1 **.. Other halogen compound, carbocyclic, production**
1994
Previous code(s): E10-H02A, E10-H02B, E10-H02C, E10-H02D

E10-H03D2 **.. Other halogen compound,aliphatic, production**
1994
Previous code(s): E10-H02B, E10-H02D

E10-H04 **Halogen use - general**
1994
Previous code(s): E10-H02

E10-H04A **. F only use - general**
1994
Previous code(s): E10-H02, E10-H02A, E10-H02B

E10-H04A1 **.. F only, F bonded to aromatic ring, use**
1994
Previous code(s): E10-H02A

E10-H04A2 **.. F only, other carbocyclic (including F on chain of aromatic ring), use**
1994
Previous code(s): E10-H02B

E10-H04A3 **.. F only, aliphatic, use**
1994
Previous code(s): E10-H02B

E10-H04B **. F + Cl only use - general**
1994
Previous code(s): E10-H02, E10-H02A, E10-H02B

E10-H04B1 **.. F + Cl only, carbocyclic, use**
1994
Previous code(s): E10-H02A, E10-H02B

E10-H04B2 **.. F + Cl only, aliphatic, use**
1994
Previous code(s): E10-H02B

E10-H04C **. Cl only use - general**
1994
Previous code(s): E10-H02, E10-H02E, E10-H02F

E10-H04C1 **.. Cl only, Cl bonded to aromatic ring, use**
1994
Previous code(s): E10-H02E

E10-H04C2 **.. Cl only, other carbocyclic (including Cl on chain of aromatic ring), use**
1994
Previous code(s): E10-H02F, E10-H02G

E10-H04C3 **.. Cl only, unsaturated aliphatic, use**
1994
Previous code(s): E10-H02G, E10-H02J

E10-H04C4 **.. Polychloroalkane, use**
1994
Previous code(s): E10-H02H

E10-H04C5 **.. Monochloroalkane, use**
1994
Previous code(s): E10-H02K

E10-H04D **. Other halogen compound use - general**
1994
Previous code(s): E10-H02

E10-H04D1 **.. Other halogen compound, carbocyclic, use**
1994
Previous code(s): E10-H02A, E10-H02B, E10-H02C, E10-H02D

E10-H04D2 **.. Other halogen compound, aliphatic, use**
1994
Previous code(s): E10-H02B, E10-H02D

E10-J **HYDROCARBONS**

E10-J01 **-C-triple bond-C-, may form part of alicyclic ring**
1970-2011
Now coded as: E10-J01A, E10-J01B

E10-J01A **Alkyne/cycloalkyne production**
2012

E10-J01B **Alkyne/cycloalkyne use**
2012

E10-J02A **Cycloaliphatic ring system present**
1970-1993
Now coded as: E10-J02A1, E10-J02A2

E10-J02A1 **Cycloaliphatic ring system present, production**
1994
Previous code(s): E10-J02A

E10-J02A2 **Cycloaliphatic ring system present, use**
1994
Previous code(s): E10-J02A

E10-J02B **Aromatic - general**

E10-J02B1 **. Production by hydrodealkylation or disproportionation**
1977

E10-J02B2 **. Purification**
1977

E10-J02B3 **. Other production methods**
1977

E10-J02B4 **. Uses**
1977

E10-J02C **Aliphatic olefinic - general**

E10-J02C1 **. Production by oligomerisation**
1977

E10-J02C2 **. Production by disproportionation of other olefins**
1977

E10-J02C3 **. Other production methods**
1977

E10-J02C4 **. Uses**
1977

E10-J02D **Aliphatic saturated - general**

E10-J02D1 **. Methane**
1986

E10-J02D2 **. Ethane, propane, (iso)butane**
1986

E10-J02D3 **. 5 or more C**
1986

E11 PROCESSES, APPARATUS

The codes in this section are applied to patents difficult to code chemically, i.e. insufficient chemical information has been provided. These codes are also used for general processes involving the use or production of organic dyes, pigments or inorganic compounds, and for analysis or treatment processes. E11-A to E11-K are only applied to organic reactions. There are a number of patents (Russia) whose inventive feature is the use made of vat residue, or waste from a production process, of undefined chemical composition. From 1994-2009 the codes applied to these patents included the code E11-T.

CHEMICAL

E11-A **CYCLISATION**
1970-2006
Now coded as the more specific code(s) E11-A01, -A02

E11-A01 **. Cyclisation - processes, apparatus**
2006

E11-A01A **.. Forming carbocyclic rings**
2022

E11-A01B **.. Forming heterocyclic rings**
Includes formation of cyclic carbonates from epoxide and CO2 when applied alongside E11-F02B.
2022

E11-A02 **. Decyclisation (ring opening) - processes, apparatus**
2006

E11-B **RING/CHAIN-EXPANSION/CONTRACTION**
1970-2001
Now coded as: E11-B01, E11-F01, -F02, -F03, -G01, -G02

E11-B01 **. Ring expansion/contraction**
2002
Previously coded as: E11-B

E11-C **DEPOLYMERISATION**

E11-D **HYDROGENATION, REDUCTION**
Includes hydrogenolysis

E11-D01 **. Hydrogenation of unsaturated C-C bonds**
2006

E11-D02 **. Hydrogenation other**
2006

E11-E **OXIDATION, DEHYDROGENATION**

E11-E01 **. Oxidation with O2, air**
2006

E11-E02 **. Dehydrogenation of C-C bonds**
2006

E11-E03 **. Other oxidation, dehydrogenation process**
2006

E11-F **ADDITION OR SUBSTITUTION REACTIONS – GENERAL/UNCLASSIFIED**
From 2006 this code has been extended to cover both addition and substitution reactions. Substitution reactions were previously covered in E11-H.

E11-F01 **. Oligomerisation, telomerisation**
2002
Chain expansion previously coded under E11-B

E11-F01A **.. Dimerisation**
Dimerisation is a reaction in which two monomers combine to form a dimer. For example, conversion of ethene to butene.
2010

E11-F02 **. Addition reactions of CO and/or CO2: hydroformylation; (oxy)carbonylation; carboxylation; homologation; etc.**
2002
Chain expansion previously coded under E11-B

E11-F02A **.. Addition of CO to olefin bonds (hydroformylation)**
2006

E11-F02B **.. Other addition reactions of CO(2)**
2006

E11-F03 **. Alkylation, arylation, acylation of C atoms; condensation; other carbon chain extension; reforming**
2002
Chain expansion previously coded under E11-B

E11-F04 **. Hydration, Hydroxylation**
2002

E11-F05 **. Etherification, acetalisation, O-alkylation**
2002

E11-F06 **. Esterification, O-acylation, anhydride formation**
2002

E11-F07 **. Addition of nitrogenous functions, (general)**
2002

E11-F07A **.. Amination, N-alkylation, N-acylation**
2002

E11-F07B **.. Nitration**
2002

E11-F07C **.. Ammonia oxidation, ammoxidation**
2006

E11-F07D **.. Other N processes**
Used for specified nitrogen-containing groups and includes cyanation. General references code as E11-F07.
2010

E11-F08 **. (Hydro) halogenation**
2002

E11-F09 **. Addition of sulfur functions**
e.g. sulfonation.
2002

E11-F10 **. Addition of P / Si / B or other heteroatom (other than O, S, N and halogen)**
See also N07-D11.
2010

E11-F10A **.. Addition of phosphorus functions**
E.g. phosphorylation.
2013

E11-F10B **.. Addition of silicon functions**
E.g. silylation.
2013

E11-F10C **.. Addition of boron functions**
E.g. alkylation of boron.
2013

E11-F10D **.. Addition of isotope or other heteroatom (other than O, N, S and halogen)**
Reactions including metal carbon bond.
2013

E11-F11 **.. Complex and salt formation reactions**
Includes salts of organic ammonium compounds and salts of alcohols and counter ions.
2014

E11-G **ELIMINATION/ CLEAVAGE REACTIONS – GENERAL OR UNCLASSIFIED**
Includes cracking.

E11-G01 **. Decarboxylation; decarbonylation**
2002
Chain contraction previously coded under E11-B

E11-G02 **. Cracking; other C-C bond fission**
2002
Chain contraction previously coded under E11-B

E11-G03 **. Hydrolysis**
2002

E11-G04 **. De(hydro)halogenation**
2006

E11-G05 **. Dehydration**
Applied where dehydration results in a product formation, e.g. dehydration of ethanol fuel; or manufacture of ethylene by dehydration of ethanol.
2010

E11-G06 **. Dehydroxylation**
Removal of hydroxy / hydroxyl (OH) groups.
2010

E11-G07 **. Deamination**
Removal of amine / amino (NH2, NHR) groups.
2010

E11-G08 **. Desulfurization, desulfonation and desulfation reactions**
Covers desulfurization, desulfonation and desulfation which takes place within the molecule to give a new product.
2014

E11-G09 **. Dealkoxylation**
Removal of alkoxy groups.
2023

E11-H **EXCHANGE REACTIONS – GENERAL OR UNCLASSIFIED**
From 2006 "substitution reactions" have been transferred to E11-F. Prior to 2006 substitution reactions remain searchable in E11-H.

E11-H01 **. Transesterification; ether / acetal exchange**
2002

E11-H02 **. Olefin metathesis**
2006

E11-H03 **. Rearrangement reactions**
Any rearrangement reaction which gives a non-isomeric product e.g. Beckmann rearrangement.
2016

E11-J **ISOMERISATION, RACEMISATION**

E11-J01 **. Isomerisation**
2006

E11-J02 **. Racemisation**
2006

E11-J03 **. Asymmetric synthesis**
2013

E11-K **GENERAL AND OTHER CHEMICAL PROCESSES**

E11-K01 **. Production by combinatorial chemistry**
Applied in addition to other (structural) codes.
2002

E11-K02 **. Apparatus for combinatorial chemistry**
Applied in addition to other (structural) codes.
2002

E11-K03 **. Green Chemistry**
Applied for chemical processes designed to minimize the production of waste by-products and having no side chain reactions. May be used in conjunction with E11-W. See also N07-K01.
2010

PHYSICAL

E11-L **RESOLUTION**

E11-M **FERMENTATION; ENZYME CATALYSIS**

E11-N **ELECTROCHEMICAL, ELECTRIC DISCHARGE**

E11-P **IRRADIATION, PHOTOGRAPHIC**

E11-Q **SEPARATION, REMOVAL, ANALYSIS - GENERAL**
The following are not in order of priority.

E11-Q01 **Separation, extraction, recovery, purification**
1986

E11-Q01A **. Purification by chemical means**
2005

E11-Q01B . **Purification by physical means**
2005

E11-Q01C . **Extraction from natural materials**
Covers chemical compounds extracted from a plant or organism or any other natural materials. Does not include standard lab extraction methods.
2010

E11-Q02 **Removal, effluent treatment**
1986

E11-Q02A . **Engine exhaust treatment**
2005

E11-Q02B . **Industrial effluent treatment**
2005

E11-Q02C . **Other**
2005

E11-Q03 **Analysis, or detection - general**
1986

E11-Q03A . **Mass spectroscopy**
1986

E11-Q03B . **NMR, ESR spectroscopy**
1986

E11-Q03C . **Radio, IR, vis, UV, Raman spectroscopy**
1986

E11-Q03D . **X-ray, gamma-ray**
1986

E11-Q03E . **Chromatography**
1986

E11-Q03F . **Electrophoresis, electrostatics**
1986

E11-Q03G . **Microscopy light, electron**
1986

E11-Q03H . **Sound, ultrasonics**
1986

E11-Q03J . **Polarography, potentiometry, electrolysis**
1986

E11-Q03K . **Radioactivity, isotope**
1986

E11-Q03L . **Colour change (visual)**
1986

E11-Q03M . **Magnetism**
1986

E11-Q03N . **Thermal means**
1986

E11-R **TREATMENT, DYEING, OTHER PHYSICAL PROCESSES - GENERAL**
The following are not in order of priority.

E11-R01 . **Treatment during preparation, manufacture**
1986

E11-R01A .. **by addition of compound**
1986

E11-R01B .. **by physical process, crystallisation**
1986

E11-R02 . **Treatment after preparation, manufacture:**
1986

E11-R02A .. **by grinding, particle size reduction**
1986

E11-R02B .. **by solvent treatment crystallisation, particle size increase**
For crystallisation prior to 198601 search E11-Q.
1986

E11-R02C .. **other**
1986

E11-R03 . **Dyeing**
1986

E11-R04 . **Other physical process**
1986

E11-R04A .. **Allotropism**
e.g from graphite to diamond.
2012

E11-S **STORAGE**
1986

E11-T **VAT RESIDUE, WASTE FROM PRODUCTION**
1994-2009
Retired.

E11-W **ENVIRONMENTALLY FRIENDLY INVENTIONS (COMPOSITIONS / APPLICATIONS)**
Only applied in combination with other chemical manual codes. Reference must be made in the published claims to 'environment(al)' or 'carbon-friendly' benefits or improvement(s) of the novelty. May be used in conjunction with E11-K03. See also N06-G.
2010

E12 PHYSICAL FORM

Apply codes from this section only when the physical form is the main or a key inventive feature.

E12-A **SOLID FORM - GENERAL**
2011

E12-A01 . **Crystalline form**
2011

E12-A02 . **Amorphous form**
The non-crystalline solid state of a typically crystalline solid.
2011

E12-A03 . **Capsule or microcapsule**
2011

E12-A04 . **Film, sheet**
Belt, ribbon, plate, membrane.
2011

E12-A05 . **Coated form**
Apply this code when the novelty is a coated form, e.g. metal with a TiO_2 coating.
2011

E12-A06 . **Pellet**
Includes prill, granule.
2012

E12-A07 . **Powder**
Includes dusting powder.
2012

E12-A08 . **Particles and particulate forms**
2012

E12-A09 . **Moulded articles**
2012

E12-A09A .. **Tablets**
2012

E12-A09B .. **Bars**
2012

E12-A10 . **Foam, expanded/porous forms**
2012

E12-A11 . **Laminate**
2012

E12-A12 . **Whisker, fibre or wire**
2012

E12-A13 . **Microspheres; spheres**
2012

E12-A14 . **Flakes**
2013

E12-A15 . **Core-shell**
Formulation containing core-shell structure.
2021

E12-B **Liquid form, semi solid form - general**
2011

E12-B01 . **Ionic liquid**
A salt in a liquid state, e.g. alkyl-substituted imidazolium and pyridinium cations, with halide or trihalogenoaluminate anions.
2011

E12-B02 . **Solvated form**
Includes solution.
2011

E12-B03 . **Emulsion**
2011

E12-B04 . **Dispersion, suspension**
2011

E12-B05 . **Cream, paste**
2011

E12-B06 . **Melt (excluding E12-A01)**
The liquid form of a substance that is normally solid at room temperature. The transition of matter from a solid state to a liquid state.
2011

E12-B07 . **Liquid crystals**
2012

E12-B08 . **Gel**
2012

E12-C **Gaseous form - general**
2011

E12-C01 . **Aerosol**
2011

E12-C02 . **Aerogel**
2014

E21-E27 ORGANIC DYES AND PIGMENTS (E2)

This section contains organic compounds used as colouring matters, fluorescent brighteners, and their immediate precursors. Each chromophore present is coded and, where necessary, more than one code is applied.

E21 AZO DYES

Includes formazan dyes which are treated as mono-azo dyes.

E21 **General**

E21-A **WATER-SOLUBLE, CATIONIC**

E21-A **General**

E21-A01 **monoazo-carbocyclic diazo, carbocyclic coupler**

E21-A02 **as above, but other coupler**

E21-A03 **monoazo-heterocyclic diazo, carbocyclic coupler**

E21-A04 **as above, but other coupler**

E21-A05 **monoazo-cyclic onium type**
This code has precedence over codes E21-A01 to E21-A04.

E21-A06 **disazo**

E21-A07 **tris- and polyazo**

E21-B **WATER-SOLUBLE, NOT CATIONIC**

E21-B **General**

E21-B01 **metallised-1:1 Cr or Co complex**

E21-B02 **metallised-1:2 Cr or Co complex containing -SO3-**

E21-B03 **metallised-1:2 Cr or Co complex not containing -SO3-**

E21-B04 **Other complex (Cu, Ni etc.)**

E21-B05 **unmetallised-monoazo**

E21-B06 **unmetallised-disazo**

E21-B07 **unmetallised-tris- and polyazo**

E21-C **WATER INSOLUBLE**
For monoazo, code diazo- and coupling- components (according to point of attachment of the azo group). This section includes metal sulfonate pigments.

E21-C **Water-insoluble azo - general**

E21-C01 **. Water-insoluble, monoazo - general**

E21-C10 **.. monoazo, diazo component - aniline derivative**

E21-C11 **.. monoazo, diazo component - other carbocyclic systems**

E21-C12 **.. monoazo, diazo component - aminothiazole type**
Includes benzthiazoles.

E21-C13 **.. monoazo, diazo component - other heterocyclic system**

E21-C14 **.. monoazo, diazo component - two or more of above types**

E21-C15 **.. monoazo, coupling component - benzene derivative**

E21-C16 **.. monoazo, coupling component - other carbocyclic system**

E21-C17 **.. monoazo, coupling component - heterocyclic**

E21-C18 **.. monoazo, coupling component - miscellaneous**

E21-C19 **.. monoazo, coupling component - two or more of above types**

E21-C02 **. Water-insoluble, disazo - general**
For codes E21-C20 to E21-C23, the definitions of the letters A, D, E, M, and Z are as follows:-
A = diazocomponent (amine)
D = tetraazocomponent (diamine)
E = coupling (end) component
M = middle component (amine and coupling)
Z = double coupling component

E21-C20 **.. disazo-type A –> M –> E**

E21-C21 **.. disazo-type D –> (E)2**

E21-C22 **.. disazo-type A –> Z <– A**

E21-C23 **.. Disazo-other**
Includes condensed.

E21-C03 **. Water-insoluble tris(poly)azo**

E21-D **REACTIVE**
Not coded in E21-A/B/C. Use all relevant codes between E21-D01 and E21-D09 as appropriate.

E21-D **General**

E21-D01 **Reactive system - triazine type**

E21-D02 **Reactive system - other heterocyclic**

E21-D03 **Reactive system - labile group linked by SO2 (NR)**

E21-D04	**Reactive system - other systems**
E21-D05	**Chromophore - metallised monoazo Cu, Ni complex**
E21-D06	**Chromophore - metallised dis- and polyazo Cu, Ni complex**
E21-D07	**Chromophore - other metal complex**
E21-D08	**Chromophore - unmetallised monoazo**
E21-D09	**Chromophore - unmetallised dis- and polyazo**
E21-E	**DIAZONIUM COMPOUND**
E21-E	**General**

E22 ANTHRAQUINONE DYES

Includes anthraquinone intermediates (which are also coded in section (**E1**)), compounds containing a condensed anthraquinone ring system, and extended quinones of more than two fused rings.

E22	**General**
E22-A	**WATER-SOLUBLE, CATIONIC**
E22-A	**General**
E22-B	**WATER-SOLUBLE, NOT CATIONIC**
E22-B	**General**
E22-B01	**1-2 substituents**
E22-B02	**3 substituents**
E22-B03	**4 substituents**
E22-B04	**5 substituents**
E22-B05	**6-8 substituents**
E22-C	**WATER-INSOLUBLE**
E22-C	**General**
E22-C01	**0-2 substituents**
E22-C02	**3 substituents**
E22-C03	**4 substituents**
E22-C04	**5 substituents**
E22-C05	**6-8 substituents**
E22-D	**REACTIVE** **Not** coded in E22-A/B/C.
E22-D	**General**
E22-D01	**1-2 substituents**
E22-D02	**3 substituents**
E22-D03	**4 substituents**
E22-D04	**5 substituents**
E22-D05	**6-8 substituents**
E22-E	**POLYCYCLIC OTHER THAN ANTHRAQUINONE**
E22-E	**General**
E22-E01	**3-4 rings** Includes derivatives of anthraquinone function.
E22-E02	**5-7 rings**
E22-E03	**8 or more rings**

E23 PHTHALOCYANINE (MACROCYCLIC) DYES

E23 **General**

E23-A **WATER-SOLUBLE**

E23-A **General**

E23-A01 **Reactive**

E23-A02 **Non-reactive**

E23-B **WATER-INSOLUBLE**

E23-B **General**

E24 SPECIAL CLASSES OF DYES

E24 **General**

E24-A **FLUORESCENT BRIGHTENERS AND DYES**

E24-A **General**

E24-A01 **Stilbene type**
1970-2001
Now coded as: E24-A04A (brighteners); E24-A05 (dyes)

E24-A02 **Coumarin or benzoxazole type**
1970-2001
Now coded as: E24-A04B (brighteners); E24-A05 (dyes)

E24-A03 **Other type**
1970-2001
Now coded as: E24-A04C (brighteners); E24-A05 (dyes)

E24-A04 **Fluorescent Brighteners, general**
2002
Previously coded under: E24-A

E24-A04A **. Stilbene type**
2002
Previously coded under: E24-A01

E24-A04B **. Coumarin or benzoxazole type**
2002
Previously coded under: E24-A02

E24-A04C **. Other type**
2002
Previously coded under: E24-A03

E24-A05 **Fluorescent Dyes**
2002
Previously coded under: E24-A:

E24-A06 **Luminescent dyes - general**
2005

E24-A06A **. Luminescent compounds containing metal**
2005

E24-A06B **. Luminescent heterocyclics**
2005

E24-A06C **. Other luminescent compounds**
2005

E24-B **POLYMERISED AND POLYCONDENSED DYES, AND PRECURSORS**

E24-B **General**
Also code the monomer in section (**E2**)

E24-C **MIXED CHROMOPHORES**

E24-C **General**
Also code constituent dye chromophores in their appropriate groups.

E24-D **(NEAR) INFRA-RED DYES**

E24-D **General**
Also code chromophores in their appropriate groups.
2002

E24-E **UV ABSORBERS**
Note: Only coded in E2 section when UV Absorber is coloured.

E24-E **General**
Also code chromophores in their appropriate groups.
2002

E24-U **NANOSTRUCTURES**
Note: Defines the structure of the substrate, not the form of the dye or pigment.

E24-U **Dye or pigment bound to nanostructure**
The dye or pigment bound to the nanostructure may be coded separately.
2010

E25 GENERAL AND OTHER DYES

E25 **Dyes and pigments - general**

E25-A **Nitro, nitroso**

E25-A **General**

E25-B **METHINE, STYRYL**

E25-B **General**

E25-B01 **Methine dye used as electrophotographic charge transport agent**
1994
Previous code(s): E25-B

E25-B02 **Methine dye used in a silver halide photosensitive photographic composition**
e.g. as photosensitiser or antihalation dye.
1994
Previous code(s): E25-B

E25-B03 **Other**
1994
Previous code(s): E25-B

E25-C **AZAMETHINE**
Includes =N-

E25-C **General**

E25-D **TRI- AND DI-ARYLMETHANE**

E25-D **General**

E25-E **OTHER TYPES - GENERAL**
In order of priority: E25-E01 > E25-E02 > E25-E03.

E25-E **General**

E25-E01 **Ring(s) containing N**
1986

E25-E02 **Ring(s) containing O**
1986

E25-E03 **Other**
1986

E25-F **NATURAL DYE OF UNKNOWN STRUCTURE**
1994

E25-F **General**
1994

E25-G **REACTIVE DYE GENERAL**
Includes reactive dyes without any specific chromophore and may also be applied with other codes for general classes of reactive dyes.
2021

E26 DYE PRECURSORS EXCLUDING E21-E, E24-B

Includes coupling components, colour couplers, oxidation bases, leuco bases; and photo-, thermo-, piezo- or halo- chromic compounds. Compounds coded here should also receive appropriate section (**E1**) codes.

E26 **General**

E26-A **COUPLERS**

E26-A **General**
1975

E26-A01 **Azo**
1986

E26-A02 **Condensation: photographic**
1986

E26-A03 **Condensation: other; oxidation; other**
1986

E26-B **LACTONES, LACTAMS, SULTONES, SULTAMS, PHOTOCHROMICS, SPIROPYRANS**
1975

E26-B **General**

E26-C **OTHER DYE PRECURSORS**
1975

E26-C **General**

E27 DYE FORMULATIONS; MORPHOLOGY

Inventions relating to formulations or specific forms/modifications of known dyes and pigments are coded here from 2002. Includes processes where modifying or treating the chromophore is key to the invention. Where appropriate, codes for the individual chromophores are additionally applied.

E27-A **FORMULATIONS**

E27-A **General**
2002

E27-A01 **Pigment formulation**
2002

E27-A02 **Dyestuff formulation**
2002

E27-B **MORPHOLOGY**
Indexed where specific shape or form, or process for treating chromophore is claimed or key to the invention.
2002

E27-B **General**
2002

E27-B01 **Pigments**
2002

E27-B01A **. Pigments morphology (nano-form)**
Applied where specific shape or form of pigment is specified as a nano-form.
2010

E27-B02 **Dyestuffs**
2002

E27-B02A **. Dyes morphology (nano-form)**
Applied where specific shape or form of dye is specified as a nano-form.
2010

E27-B03 **Others**
2002

E27-B03A **. Other chromophores morphology (nano-form)**
Applied where specific shape or form of non-dye, non-pigment chromophore is specified as a nano-form.
2010

E31-E35 INORGANIC CHEMISTRY (E3)

In general, the overall priority is:-

E35 > 34 > 33 > 32 > 31

However, the following rules should also be noted.

1. Code E31-E (peroxide) has priority over all other section (E3) codes.
2. Code E32-B (cyanogen and derivatives) has priority over E33, 34 and E35.
3. Within each of E32, E33, E34 and E35 all appropriate codes are assigned.
4. Within E31, a compound is given the last code letter, while within the subdivisions of these the first appropriate code is applied.

   E31-E > E31-Q > E31-P >–> E31-K > E31-J > –> E31-A

   while E31-P06B > E31-P06C

   and E31-Q02 > E31-Q04
5. E31 has priority over E32, E33, E34, E35 for ammonium, cyanogen and metal derivatives of:- hydrides (metals only) (E31-A+) oxyacids of halogens (E31-C) hyposulfite, polythionate/ite (E31-F+) thiosulfate (E31-F+) compounds of Se, Te (E31-G) amide, azide, imide (E31-H+) nitride, nitrite, nitrosyl (E31-H+) oxyacids of P, phosphide (E31-K+) compounds of As (E31-L) and Sb (E31-M) carbides (E31-N+) compounds of Si (E31-P+) compounds of B (E31-Q+)
6. E31 has priority over E33, E34 for sulphides of:- alkali metal, Mg, Ca, Sr, Ba (E31-F+).

Note

1. Specific isotopes and radioactive inorganic compounds of elements not naturally radioactive so are coded in section (**E3**) with the addition of code E05-R

E31 NON-METALLIC ELEMENTS, METALLOIDS AND COMPOUNDS

This general code is used for vague disclosures such as Non-metallic elements and their compounds or if five or more E31 codes would apply.

E31	General	
E31-A	**HYDROGEN, METAL HYDRIDE, WATER - GENERAL** Excludes H of acids.	
E31-A01	**H2 + CO**	**1986**
E31-A02	**H2 production, storage**	**1986**
E31-A02A	**. By electrical method**	**2005**
E31-A02B	**. Storage**	**2005**
E31-A02C	**. Other**	**2005**
E31-A03	**H2 use, detection, removal**	**1986**
E31-A04	**metal hydride**	**1986**
E31-A05	**water, other**	**1986**
E31-B	**HALOGEN (X), X ACID AND HALIDE (HAL) - GENERAL**	
E31-B01	**Electrical production of X** Includes electrolyte and apparatus.	**1975**
E31-B02	**production of X by other methods, production of HX or inter-X compound**	**1975**
E31-B02A	**. F, Br, I element production**	**2005**
E31-B02B	**. Cl element production**	**2005**
E31-B02C	**. F, Br, I compound production**	**2005**
E31-B02D	**. Cl compound production**	**2005**
E31-B03	**use of X or compound containing X - general** For oxy X compound see E31-C.	**1975**
E31-B03A	**. F, Br, I element**	**1986**
E31-B03B	**. Cl element**	**1986**

E31-B03C . **F, Br, I compound**
1986

E31-B03D . **Cl compound**
1986

E31-C **OXIDE OR OXYACID OF HALOGEN, INCLUDING SALTS**
Oxide or oxyacid of halogen, including salts.

E31-D **OXYGEN, OZONE; OXIDE - GENERAL**

E31-D01 **O2 production, storage**
Oxygen or oxygen ion production or storage.
1986

E31-D02 **O2 use, detection, removal**
1986

E31-D03 **O3 ; activated oxygen etc.**
1986

E31-D04 **oxide**
1986

E31-D05 **Hydroxide ion**
Includes hydroxide ion and active species such as hydroxy radical.
2005

E31-E **PEROXIDE, PERACID; SALTS THEREOF**
N.B. has priority over all other section (**E3**) codes.

E31-E01 **Hydrogen peroxide**
2005

E31-E02 **Percarbonate**
2005

E31-E03 **Persulfate**
2005

E31-E04 **Perborate**
2005

E31-E05 **Other inorganic peroxides**
Includes superoxides as well as pernitrates, perphosphates and metal peroxides.
2005

E31-F **SULFUR; COMPOUND THEREOF - GENERAL**

E31-F01 **Removal of S compound(s) from wastes etc., optionally with recovery of S values (general)**
One of the E11-Q02 codes must be applied as well whenever this code or one of its sub-divisions (E31-F01A – E31-F01C) is applied. Always try to apply one of the more specific codes in preference to this one.
1975

E31-F01A . **removal of S oxide**
1986

E31-F01B . **removal of S hydride**
1986

E31-F01C . **removal of other S compound**
1986

E31-F02 **production of S, H2S (or salts), polysulfide**
Excludes E31-F01.
1975

E31-F03 **production of other S compound**
1975

E31-F04 **Use of elemental sulfur, (poly)sulfide or oxide of S**
Includes complex oxides.
1975

E31-F05 **Use of other S compound**
Includes S oxyacid.
1975

E31-G **SELENIUM (SE) OR TELLURIUM (TE) OR COMPOUND THEREOF**

E31-H **NITROGEN, COMPOUND THEREOF GENERAL**

E31-H01 **Removal of nitrogen oxides from waste gases etc. catalytically**
1977

E31-H02 **Other methods for removing N oxides from waste gases etc.**
1977

E31-H03 **Elemental N; compound containing halogen and/or sulfur**
1977

E31-H04 **Production of other N compound**
Nitride, metal nitride.
1977

E31-H05 **Use of other N compound**
Nitride, metal nitride.
1977

E31-J **NOBLE GAS (OR COMPOUND)**

E31-K **PHOSPHORUS OR COMPOUND THEREOF - GENERAL**

E31-K01 **catalyst containing P (or compound)**
1975

E31-K02 **H3PO4 (optionally some polyphosphoric acid) production**
1975

E31-K03 **orthophosphate (optionally some polyphosphate) - production**
1975

E31-K04 **P; other P compound - production**
Includes polyphosphates, thiophosphates and thiopolyphosphates.
1975

E31-K05 **Orthophosphate use - general**
Includes acid and P heteropolyacid.
1975

E31-K05A **. orthophosphoric acid**
1986

E31-K05B **. counterion is metal from Section 35**
1986

E31-K05C **. counterion is metal from Section 34**
1986

E31-K05D **. counterion is metal from Section 33**
1986

E31-K05E **. counterion is ion from Section 32, 31 or is organic**
1986

E31-K06 **Polyphosphate, use**
Includes meta.
1975

E31-K07 **P; other P compound, use**
Includes polyphosphates, thiophosphates and thiopolyphosphates.
1975

E31-L ARSENIC OR COMPOUND THEREOF

E31-M ANTIMONY COMPOUND

E31-N CARBON OR COMPOUND THEREOF - GENERAL

E31-N01 **C fibre production**
1975

E31-N02 **C modification**
Includes C fibre graphitisation.
1975

E31-N03 **C production**
Includes diamonds.
1975

E31-N03A **. Diamond, cubic C**
2005

E31-N03B **. Graphite (other) pyrolytic**
Not C fiber graphitisation- E31-N02
2005

E31-N03C **. Active**
2005

E31-N03D **. Inert**
2005

E31-N04 **use of C - general**
e.g. as purifier, catalyst.
1975

E31-N04A **. diamond, cubic C**
1986

E31-N04B **. graphite, (other) pyrolytic**
1986

E31-N04C **. other form of C, active**
1986

E31-N04D **. other form of C, inert**
1986

E31-N04E **. C, fibre, use**
Includes active and inert forms.
2012

E31-N05 **compound of C - general**
See E31-A for CO with H2 mixtures.
1975

E31-N05A **. metal carbide**
1986

E31-N05B **. (thio) CO, carbonyl compound**
For metal carbonyls see code for metal.
1986

E31-N05B1 **.. Carbon monoxide**
2005

E31-N05B2 **.. other**
2005

E31-N05C **. CO2**
Includes carbonic acid.
1986

E31-N05D **. other C compound**
1986

E31-P SILICON OR COMPOUND THEREOF– GENERAL

E31-P01 **production and/or modification of silica or hydrate**
1975

E31-P02 **mixture of silica and alumina (may be chemically combined) - general**
1975

E31-P02A **. zeolite production**
1986

E31-P02B **. zeolite use**
1986

E31-P02C **. non-zeolite production**
1986

E31-P02D **. non-zeolite use**
1986

E31-P03 **use of silica, other than mixture with alumina**
1975

E31-P04 **fluorosilicate; silicate mineral (other than +Al)**
1975

E31-P05 **other silicate - general**
1975

E31-P05A **. non alkali(ne earth) metal present**
1986

E31-P05B **. alkaline earth metal present**
1986

E31-P05C **. alkali metal present**
1986

E31-P05D **. other silicate**
1986

E31-P06 **Silicon; other Si compound – general**
Three or more codes roll up.
1975

E31-P06A **. Si element**
1986

E31-P06B **. Si halide, hydride**
1986

E31-P06C **. Si carbide**
1986

E31-P06D **. Si nitride**
1986

E31-P06E **. other Si compound**
1986

E31-Q **BORON; COMPOUND THEREOF - GENERAL**
Three or more roll up.

E31-Q01 **B element**
1986

E31-Q02 **B halide, hydride**
1986

E31-Q03 **B carbide, nitride, metal boride**
1986

E31-Q04 **B oxide**
1986

E31-Q05 **B acid**
1986

E31-Q06 **Alkali metal borate**
Borate: from B-O acid.
1986

E31-Q07 **Other borate**
Borate: from B-O acid.
1986

E31-Q08 **Other B compound**
Borate: from B-O acid. BF4- is coded E31-Q02.
1986

E31-U **INORGANIC NANOSTRUCTURES**
Used in conjunction with E3* codes
2005

E31-U01 **Nanoparticles, nanospheres**
2006

E31-U02 **Nanotubes, nanorods, nanowires**
Includes nanowhiskers.
2006

E31-U03 **Nanofilms**
Includes nanobelt, nanoribbon, nanoplate.
2006

E31-U04 **Other nano-forms (e.g. nano-buds, nano-horns)**
Includes nano-clusters and nano-capsules.
2011

E31-V **QUANTUM DOTS OR QUANTUM CLUSTERS**
Quantum dots are nanocrystals of a semiconducting material used mostly in LEDs and solid state lighting, displays and photovoltaic devices.
2014

E32 AMMONIA, CYANOGEN AND COMPOUNDS

E32	General
E32-A	**AMMONIA, OR AMMONIUM COMPOUND - GENERAL**
E32-A01	**NH3 production** **1986**
E32-A02	**NH3 use** **1986**
E32-A03	**NH4+ compound production** **1986**
E32-A04	**NH4+ compound use** **1986**
E32-A05	**other compound** **1986**
E32-B	**CYANOGEN AND DERIVATIVES** Includes all metal cyanides, (thio)cyanates and cyanamides. N.B. has priority over E33, 34, 35.

E33 ALKALI METAL COMPOUNDS

E33	General
E33-A	**OXIDE OR HYDROXIDE OF SODIUM/POTASSIUM (NA/K) - GENERAL**
E33-A01	**Sodium/potassium (Na/K) hydroxide production by electrical means** **1986**
E33-A02	**Sodium/potassium (Na/K) hydroxide production by other means** **1986**
E33-A03	**Sodium/potassium (Na/K) hydroxide use** **1986**
E33-A04	**Sodium/potassium (Na/K) oxide** **1986**
E33-B	**HALIDE OF SODIUM/POTASSIUM (NA/K)**
E33-C	**SULFATE OR SULFITE OF SODIUM/POTASSIUM (NA/K)** Includes hydrogen sulfate/hydrogen sulfite.
E33-D	**CARBONATE OF SODIUM/POTASSIUM (NA/K)** Includes hydrogencarbonate
E33-E	**NITRATE OF SODIUM/POTASSIUM (NA/K)**
E33-F	**OTHER COMPOUND OF SODIUM/POTASSIUM (NA/K)**
E33-G	**LITHIUM (LI) COMPOUND**
E33-H	**RUBIDIUM (RB) OR CESIUM (CS) COMPOUND**
E33-S	**GENERAL SODIUM/POTASSIUM (NA/K) SALT** *Previous code(s) : E33-A* **2006**

E34 COMPOUNDS of Be, Mg, Al, Ca, Sr, Ba, Ra, Th, RARE EARTHS

E34 **General**

E34-A **BERYLLIUM (BE) COMPOUND**

E34-B **MAGNESIUM (MG) COMPOUND-GENERAL**

E34-B01 **Magnesium (Mg) oxide**
1986

E34-B02 **Magnesium (Mg) hydroxide, carbonate, basic compound**
1986

E34-B03 **Magnesium (Mg) halide, sulfate**
1986

E34-B04 **Other magnesium (Mg) compound**
For sulfide (derivative) code E31-F+.
1986

E34-C **ALUMINIUM (AL) COMPOUND - GENERAL**

E34-C01 **Aluminium (Al) (hydr)oxide production**
1975

E34-C02 **Aluminium (Al) (hydr)oxide use**
For alumina/silica see E31-P02.
1975

E34-C03 **others**
1975

E34-D **CALCIUM (CA), STRONTIUM (SR) OR BARIUM (BA) COMPOUND - GENERAL**

E34-D01 **Calcium (Ca) (hydr)oxide**
1975

E34-D02 **Calcium (Ca) sulfate, halide**
Includes basic.
1975

E34-D03 **Other calcium (Ca) compounds; strontium (Sr) or barium (Ba) compounds**
For sulfide (derivative) code E31-F+.
1975

E34-D03A **. Calcium carbonate**
2005

E34-D03B **. Other calcium compounds**
2005

E34-D03C **. Strontium compounds**
2005

E34-D03D **. Barium compounds**
2005

E34-D04 **Calcium - general**
Applied only to vague references to inorganic calcium compounds.
2011

E34-E **SC, Y, LANTHANOID, RA, OR TH COMPOUND**

E34-E01 **Scandium (Sc), yttrium (Y), lanthanum (La)**
2006

E34-E02 **Lanthanides - general**
2006

E34-E02A **. Cerium**
2006

E34-E02B **. Other Lanthanide compounds**
2006

E34-E03 **Radium (Ra), thorium (Th)**
2006

E35 COMPOUNDS OF OTHER METALS

E35	**GENERAL**
E35-A	**Copper (Cu) compound**
E35-B	**Silver (Ag), gold (Au) compound**
E35-C	**Zinc (Zn) compound - general**
E35-C01	**. Zinc (hydr)oxide production** **2006**
E35-C02	**. Zinc (hydr)oxide use** **2006**
E35-C03	**. Zinc halide, sulfate** **2006**
E35-C04	**. Other Zinc (Zn) compound** **2006**
E35-D	**Cadmium (Cd) compound**
E35-E	**Mercury (Hg) compound**
E35-F	**Gallium (Ga), indium (In), thallium (Tl) compound**
E35-G	**Germanium (Ge) compound**
E35-H	**Tin (Sn) compound**
E35-J	**Lead (Pb) compound**
E35-K	**Titanium (Ti) compound - general**
E35-K01	**. Titanium dioxide (TiO_2) production** **1986**
E35-K02	**. Titanium dioxide (TiO_2) use** **1986**
E35-K03	**. Titanium (Ti) halide, sulfate** **1986**
E35-K04	**. other Titanium (Ti) compound** **1986**
E35-L	**Zirconium (Zr), hafnium (Hf) compound**
E35-M	**Bismuth (Bi) compound**
E35-N	**Vanadium (V), niobium (Nb), tantalum (Ta) compound**
E35-P	**Chromium (Cr) compound**
E35-Q	**Molybdenum (Mo), tungsten (W) compound**
E35-R	**Polonium (Po), uranium (U), trans-U compound**
E35-S	**Manganese (Mn) compound**
E35-T	**Rhenium (Re) compound**
E35-U	**Iron (Fe) compound - general**
E35-U01	**. Iron (Fe) oxide production** Includes ferrite. **1986**
E35-U02	**. Iron (Fe) oxide use** Includes ferrite. **1986**
E35-U03	**. Iron (Fe) hydroxide, mixed oxide-hydroxide** **1986**
E35-U04	**. Iron (Fe) halide, sulfate** **1986**
E35-U05	**. other Iron (Fe) compound** **1986**
E35-V	**Cobalt (Co) compound**
E35-W	**Nickel (Ni) compound**
E35-X	**Rhodium (Rh), palladium (Pd), osmium (Os), iridium (Ir), platinum (Pt) compound**
E35-Y	**Other metal compound (Tc, At, Fr, Ac, Pa)**

F:
TEXTILES, PAPER, CELLULOSE

F01 Natural/Synthetic Threads/Fibres
F02 Fabrics and their Production
F03 Treatment of Fabric Products
F04 Textile Applications
F05 Paper and Wood

F: TEXTILES, PAPER, CELLULOSE

Code commenced 197001.

F01 NATURAL/SYNTHETIC THREADS/FIBRES

F01-A **MECHANICAL TREATMENT OF NATURAL MATERIAL TO OBTAIN FIBRES OR FILAMENTS**

F01-A01 **Of animal fibres**
Including cocoon handling and unwinding.

F01-A02 **Of vegetable fibres**
Including scutching, ginning.

F01-A03 **Of mineral fibres**
Prior to 1971 no specific code was available.
1971

F01-B **CHEMICAL TREATMENT OF NATURAL MATERIAL TO OBTAIN FILAMENTS OR FIBRES FOR SPINNING**

F01-B01 **Of animal fibres**
Including carbonising rags to recover fibres.

F01-B02 **Of vegetable fibres**
Including retting.

F01-C **MECHANICAL METHODS AND EQUIPMENT IN MANUFACTURE OF SYNTHETIC FILAMENTS, THREADS, FIBRES, BRISTLES OR RIBBONS**

F01-C01 **Equipment**
Including spinnerettes, die plates, manifolds and distributors, pumps.

F01-C02 **Dry spinning (evaporative)**
1970-1993

F01-C03 **Melt spinning**
1970-1993

F01-C04 **Wet spinning (coagulative)**
1970-1993

F01-C05 **Fibrillation**

F01-C06 **Drawing**
Including draw texturing (with F01-H04+). Prior to 1971 see F01-C.
1971

F01-C07 **Other fibre production (other than by spinning or fibrillation)**
Including emulsion spinning, centrifugal spinning, flash extrusion of plexifilaments and glass fibre production. Prior to 1971 see F01-C.
1972

F01-C07A . **Melt blowing**
1994
Previous code(s): F01-C07

F01-C07B . **Flash extrusion**
1994
Previous code(s): F01-C07

F01-C07C . **Fibrid production**
1994
Previous code(s): F01-C07

F01-C07D . **Synthetic pulp production**
1994
Previous code(s): F01-C07

F01-C07E . **Glass fibre production**
1994
Previous code(s): F01-C07

F01-C08 **Spinning general**
1994
Previous code(s): F01-C+

F01-C08A . **Dry spinning**
1994
Previous code(s): F01-C02

F01-C08B . **Melt spinning**
1994
Previous code(s): F01-C03

F01-C08B1 .. **High speed**
1994
Previous code(s): F01-C03

F01-C08C . **Wet spinning (coagulative)**
Includes Dry-Wet spinning.
1994
Previous code(s): F01-C04

F01-C **Others**
e.g. cooling, quenching, freezing, annealing of extruded filaments.

F01-D **CHEMICAL FEATURES IN MANUFACTURE OF SYNTHETIC FILAMENTS, THREADS, FIBRES, BRISTLES OR RIBBONS**
Including polymer production or chemical modification; chemical structure of polymers and additives used in bulk of polymer.

F01-D01 **Cellulose ester fibres**
e.g. cellulose (di-,tri-) acetate.

F01-D02 **Acrylic and modacrylic fibres**
i.e. acrylonitrile or methacrylonitrile (co)polymers. For acrylic ester polymers see F01-D08.

F01-D03 **Polyamide fibres, nylons**
Including nylon 6 (poly-caproamide); nylon 6:6; aromatic polyamides (aramids); polyesteramides (with F01-D04).

F01-D03A **. Wholly aliphatic polyamides**
1994
Previous code(s): F01-D03

F01-D03B **. Aromatic polyamides**
Includes aromatic polyamides containing aliphatic groups.
1994
Previous code(s): F01-D03

F01-D04 **Polyester, polycarbonate fibres**
Including polybutylene terephthalate (PBT); linear polyesters; polyesteramides (with F01-D03); polyetheresters (with F01-D10). For polyethylene terephthalate see F01-D04A.

F01-D04A **. Polyethylene terephthalate (PET)**
1994
Previous code(s): F01-D04

F01-D05 **Polyolefin fibres**
Including polyethylene, polypropylene.

F01-D06 **Regenerated cellulose, rayon, polynosic fibres**

F01-D06A **. By viscose process**
1994
Previous code(s): F01-D06

F01-D06B **. By cuprammonium process**
1994
Previous code(s): F1-D06

F01-D06C **. By other specific process**
1994
Previous code(s): F01-D06

F01-D07 **Polyurethane fibres**
e.g. Spandex, Lycra®.

F01-D08 **Vinyl fibres**
Including polyvinyl chloride (PVC), polyvinyl alcohol; excluding fluorine containing resins for which see F01-D10.

F01-D09 **Inorganic and metallic; asbestos**

F01-D09A **. Carbon; graphite fibres**
To be searched for the production of these fibres.
1971

F01-D09A1 **.. Derived from pitch**
1994
Previous code(s): F01-D09A

F01-D09A2 **.. Derived from polyacrylonitrile (co)polymers**
1994

F01-D09A3 **.. Derived from other specific precursor(s)**
1994
Previous code(s): F01-D09A

F01-D09B **. Glass fibres**
Prior to 1970 see F01-D09
1971

F01-D10 **Other fibres**
Including fluorocarbon, phenoplast, proteinaceous.

F01-D **Chemical features in general**
e.g. additions to spinning solutions or melts.

F01-E **PHYSICAL CHARACTERISTICS OF FIBRES**

F01-E01 **Conjugate, general**
Including sea-island, side-by-side, sheath-core.

F01-E01A **. Crimped conjugate**
Prior to 1970 see F01-E01.
1972

F01-E02 **Non-circular, tapered**
Including trilobal, lobed, thick and thin (variable denier) and plexifilaments.

F01-E03 **Hollow**

F01-E04 **Textured**
Excluding F01-E01A; e.g. crimped, bulked.

F01-E05 **Monofilament**
1994
Previous code(s): F01-E

F01-E06 **Microdenier yarns**
1994
Previous code(s): F01-E

F01-E07 **Mixed filament yarns**
Core-sheath yarns.
1994
Previous code(s): F01-E

F01-E08 **Variable denier yarns**
1994
Previous code(s): F01-E

F01-E09 **Staple yarn/fibres**
1994
Previous code(s): F01-E

F01-E09A **. Fibrefill (batts, fibreballs, clusters)**
1994
Previous code(s): F01-E

F01-E **Others**
Including slub yarn, knop yarn, nub yarn, sewing threads (with F02-F01). For spandex see F01-D07.

F01-F **PRELIMINARY TREATMENT OF FIBRES**
e.g. for spinning.

F01-F01 **Carding, combing, hackling**
Prior to 1971 see F01-F.
1971

F01-F02 **Drafting, sliver drawing**
Prior to 1971 see F01-F.
1971

F01-F03 **Opening, bale breaking**
Prior to 1972 see F01-F.
1972

F01-F04 **Feeding of slivers**
1994
Previous code(s): F01-F

F01-F **Other preliminary treatment**
e.g. blending, stapling.

F01-G **SPINNING PROCESSES AND EQUIPMENT**

F01-G00G **General spinning and equipment**
Indexed for generic and unspecified cases.
1994
Previous code(s): F01-G

F01-G01 **Ring spinning**

F01-G02 **Ringless spinning**
e.g. flyer, cap, mule.

F01-G03 **Converter processing**

F01-G04 **Automated spinning systems**

F01-G05 **Open-end spinning, break spinning**
Prior to 1972 see F01-G.
1972

F01-G **Others**
Including electrostatic.

F01-H **MECHANICAL FINISHING OF FIBRES, FILAMENTS, THREADS, YARNS OR ROPES**

F01-H01 **Twisting, false twisting, plying, cabling, doubling, stranding**
Including in production of ropes and cables.

F01-H02 **Entangling, intermingling, interlacing, differential turbulence and other 'zero twist' processes**
e.g. air jet.

F01-H03 **Winding, reeling, packaging**

F01-H03A **. Bobbins, sleeves, tubes, cops, cartons**
Prior to 1971 see F01-H03.
1971

F01-H03B **. Break detection, end joining, length metering**
e.g. knotting, splicing. Prior to 1971 see F01-H03.
1971

F01-H03C **. Bobbin and cop handling**
e.g. doffing, donning, aligning, transporting. Prior to 1971 see F01-H03.
1971

F01-H03D **. Package formation, winding, coiling**
Prior to 1972 see F01-H03.
1972

F01-H03D1 **.. Transfer tails**
1994
Previous code(s): F01-H03D

F01-H03D2 **.. Thread traversing guides**
1994
Previous code(s): F01-H03D

F01-H03E **. Waste removal from cores**
1994
Previous code(s): F01-H03

F01-H04 **Crimping, curling, texturing, bulking**

F01-H04A **. Stuffer-box crimping**

F01-H04B **. False twisting**

F01-H04C **. Other crimping or curling**
e.g. knit-deknit (with F02-B03+); gear wheel processes.

F01-H04C1 **.. Yarns textured by drawing only**
1994
Previous code(s): F01-H04C

F01-H04C2 **.. Jet crimping**
1994
Previous code(s): F01-H04C

F01-H05 **Heat treatment, setting, conditioning, shrinking, relaxing, annealing**
Including crimp development with heating (with F01-H04+).

F01-H06 **Finishing or dressing of fibres, general**
Including lubrication, spin finishes.

F01-H06A **. Sizing of fibres**
Prior to 1972 see F01-H06.
1972

F01-H06B **. Increasing adhesion of fibres to bulk materials**
e.g. resins, concrete. Prior to 1986 see F01-H06 in conjunction with F03-D.
1986

F01-H07 **Thread guides**
1994
Previous code(s): F01-H03

F01-H08 **Tension devices**
1994
Previous code(s): F01-H

F01-H09 **Yarn cleaners**
1994
Previous code(s): F01-H

F01-H **Others**
Including testing and identification of fibres and filaments.

F01-J **OTHER FIBROUS FORMS**
1994

F01-J01 **Fibrids**
1994

F01-J02 **Synthetic pulps**
1994

F01-J **Other fibrous forms**
1994

F02 FABRICS AND THEIR PRODUCTION

F02-A **WEAVING**

F02-A01 **Warping, beaming, leasing, let-off**

F02-A02 **Shedding mechanisms; patterns (cards, designing); dobbys, jacquard systems, healds, heddles**

F02-A03 **Woven fabrics**

F02-A03A **. Of specified application**
Including carpets. Prior to 1972 see F02-A03.
1972

F02-A04 **Methods of weaving, looms**

F02-A04A **. Conventional**

F02-A04B **. Shuttleless**
e.g. water jet, air jet, rapier, weft gripper looms.

F02-A05 **Auxiliary weaving apparatus, weavers' tools, shuttles**
Prior to 1971 see F02-A04.
1971

F02-B **KNITTING**

F02-B01 **Patterns (cards, designing); control mechanisms**

F02-B02 **Knit fabrics**
Including throw rugs.

F02-B03 **Methods of knitting; knitting machines**

F02-B03A **. Warp knitting**

F02-B03B **. Weft knitting**

F02-B04 **Accessories for knitting machines**
Including feed devices, take-off devices. Prior to 1971 see F02-B03.
1971

F02-C **NON-WOVEN FABRICS**

F02-C01 **Non-woven fabrics, felts, blankets, battings, waddings, stuffings**

F02-C01A **. Non-woven pile fabrics**
1994
Previous code(s): F02-C01

F02-C01B1 **.. Self-bonded non-woven fabrics**
1994
Previous code(s): F02-C01

F02-C01B2 **.. Self-bonded non-woven fabrics where the binder is of the same composition as the fibre**
1994
Previous code(s): F02-C01

F02-C01C **. Adhesive bonded non-woven fabric using adhesives or binders**
2005

F02-C02 **Methods of manufacture; machinery, general**
Including wet laying; dry laying; spin bonding (with F01-C+).

F02-C02A **. Stitch-bonding**

F02-C02B **. Bonding of fibrous webs**

F02-C02B1 **.. Using an adhesive**
Prior to 1972 see F02-C02B.
1972

F02-C02C **. Felting**

F02-C02D **. Needling, punching**

F02-C02E **. Wet laying**
2005

F02-C02F **. Spunlacing, hydroentangling**
2005

F02-C02G **. Air laying**
2005

F02-D **TUFTING AND TUFTED PRODUCTS**

F02-D **Tufting and tufted products**
Including carpets.

F02-E **BRAIDING, LACE, TRIMMINGS, NETS**

F02-E01 **Braiding, plaiting and manufacture of lace including bobbin; net or carbonised lace; braiding machines; braid lace**

F02-E02 **Trimmings; ribbons (including typewriter and computer), tapes, bands, narrow fabric; other webbing**

F02-E03 **Making nets; making knotted carpets or tapestries; macrame; other knotting**

F02-F **SEWING, EMBROIDERING**

F02-F01 **Sewing, general**
Including sewing threads (with F01-E).

F02-F01A **. Sewing specific goods, general**
Prior to 1971 see F02-F01.
1971

F02-F01A1 **.. Sewing fasteners**
Including slide fasteners, button (holes). Prior to 1986 see F02-F01A.
1986

F02-F01B **. Sewing accessories, general**
Prior to 1972 see F02-F01.
1972

F02-F01B1 **.. Control devices, programs, microcomputers**
Prior to 1986 see F02-F01B.
1986

F02-F01B2 **.. Feed or removal of cloth or work-pieces, trimming, cutting of threads**
Prior to 1986 see F02-F01B.
1986

F02-F02 **Embroidering**

F02-G **PHYSICAL CHARACTERISTICS OF FABRICS**
1994

F02-G01 **General**
1994

F02-G02 **Crepe fabrics**
1994

F02-G03 **Pile fabrics**
See also non-woven pile fabrics F02-C01A.
1994

F02-G04 **Stretch fabrics**
1994

F02-G04A **. Due to fibres**
1994

F02-G04B **. Due to fabric structure**
1994

F02-G **Physical characteristics of fabrics, other**
1994

F03 TREATMENT OF FABRIC PRODUCTS

F03-A **MECHANICAL TREATMENT**

F03-A01 **Calendering, pleating, forming**

F03-A02 **Stretching, drying, setting, decatising, stentering, tentering, mechanical shrinkproofing and stabilisation, relaxing**

F03-A **Other**
e.g. shearing, napping, raising, singeing.

F03-B **BLEACHING AND BLEACHING AGENTS; SCOURING, DESIZING, MERCERISING, OPTICAL BLEACHING**

F03-B01 **Bleaching, optical bleaching**

F03-B **Other**

F03-C **CHEMICAL TREATMENT**

F03-C01 **Equipment**

F03-C02 **Repellents and retardants, general**
Including oil and soil.

F03-C02A . **Water proofing, rain proofing, hydrophobisation**
Prior to 1972 see F03-C02.
1972

F03-C02B . **Biological repellents**
e.g. bactericides, germicides, insecticides, rot proofing. Prior to 1972 see F03-C02.
1972

F03-C03 **Flame proofing; fire retardants; melt proofing**

F03-C03A . **Phosphorus containing material**
Prior to 1977 see F03-C03.
1977

F03-C03B . **Antimony containing material**
Prior to 1977 see F03-C03.
1977

F03-C03C . **Material containing halogen**
Prior to 1977 see F03-C03.
1977

F03-C04 **Durable press, wash-wear, crease-proofing, anti-pilling, shrinkproofing, dimensional stabilisation using resins or additives**

F03-C05 **Antistats, softeners, surfactants, processing aids, hygroscopic treatments**

F03-C06 **To improve dye receptiveness**
Prior to 1977 see F03-C.
1977

F03-C07 **To improve resistance of textiles to ageing**
e.g. by air, light and heat. Prior to 1977 see F03-C.
1977

F03-C08 **Dissolving/degrading fibres to remove them or to improve properties such as drape**
e.g. (partial) hydrolysis of polyester fibres with alkali. Prior to 1986 see F03-C in conjunction with F03-A.
1986

F03-C09 **Odorants, deodorants**
2005

F03-C **Others**

F03-D **LAMINATING AND COMPOSITES**

F03-D01 **Adhesive laminating**

F03-D02 **Flame laminating**

F03-D03 **Other laminating**
Including flocking. Prior to 1971 see F03-D.
1971

F03-D04 **Fabric structures designed for reinforcement of solid materials**
Such as plastics, concrete, metal. Prior to 1986 see F03-D.
1986

F03-D **Composites; reinforced materials, general**

F03-E **TREATMENT NOT COVERED ELSEWHERE**

F03-E01 **By coating**
Prior to 1972 see F03-E.
1972

F03-E02 **Recycling, recovery**
1994
Previous code(s): F03-E

F03-E **Others**
Including waste-water, recovering textile materials.

F03-F **DYEING AND/OR PRINTING**
Formerly: Dyes and dyeing textiles etc.

F03-F **General dyeing processes**
Applied from the start of CPI (1970) to the end of 1985 and was discontinued. From the start of 1986 see F03-F33.
1970-1985

F03-F01 **Equipment**

F03-F02 **Animal substrates**
e.g. silk, wool. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F03 **Vegetable substrates**
e.g. cotton, linen. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F04 **Cellulose esters**
Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F05 **Acrylic and modacrylic**
Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F06 **Polyamide or Nylon**
Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F06A . **Azo dyes, water soluble**
Prior to 1977 see F03-F06.
1977

F03-F06B . **Azo dyes, water insoluble**
Prior to 1977 see F03-F06.
1977

F03-F06C . **Anthraquinone dyes**
Prior to 1977 see F03-F06.
1977

F03-F07 **Polyester**
Including polycarbonate. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F07A . **Azo dyes, water soluble**
Prior to 1977 see F03-F07.
1977

F03-F07B . **Azo dyes, water insoluble**
Prior to 1977 see F03-F07.
1977

F03-F07C . **Anthraquinone dyes**
Prior to 1977 see F03-F07.
1977

F03-F08 **Polyolefin**
Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F09 **Regenerated cellulose**
Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F10 **Polyurethane**
e.g. spandex. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F11 **Vinyl**
e.g. PVC, PVA. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F12 **Inorganic and metallic**
Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.

F03-F13 **Solvent dyeing, general**
Prior to 1971 no specific code was available; see codes for appropriate substrate.
1971

F03-F13A . **Of cotton, regenerated cellulose**
Prior to 1971 no specific code was available; see codes for appropriate substrate.
1971

F03-F13B . **Of other substrates**
Prior to 1971 no specific code was available; see codes for appropriate substrate.
1971

F03-F14 **After treatment of coloured substrates**
Prior to 1972 no specific code was available.
1972

F03-F15 **Other substrates**
Prior to 1972 see F03-F. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.
1972

F03-F16 **Dyes of general application**
Prior to 1972 see F03-F. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.
1972

F03-F16A . **Azo dyes, water soluble**
Prior to 1977 see F03-F16. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.
1977

F03-F16B . **Azo dyes, water insoluble**
Prior to 1977 see F03-F16. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.
1977

F03-F16C . **Anthraquinone dyes**
Prior to 1977 see F03-F16. Prior to 1986 this code retrieves only references to dyeing. For printing prior to 1986 see F03-G.
1977

F03-F17 **With pigments and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F18 **With disperse dyes and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F19 **With reactive dyes and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F20 **With direct dyes and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F21 **With anionic/acid dyes and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F22 **With cationic/basic dyes and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F23 **With vat/leuco dyes and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F24 **With sulfur dyes and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F25 **With metal complex dyes and associated materials/compositions**
Prior to 1986 no specific code was available; see codes for appropriate substrate.
1986

F03-F26 **Dyeing/printing using compositions in the form of foams**
Prior to 1986 see F03-F or F03-G.
1986

F03-F27 **Transfer dyeing/printing; sublimation printing**
Including decalcomanias. Prior to 1986 see F03-G.
1986

F03-F28 **Discharge or resist dyeing/printing**
Prior to 1986 see F03-G.
1986

F03-F29 **Cop dyeing, cheese dyeing, warp dyeing or printing**
Prior to 1986 see F03-F or F03-G.
1986

F03-F30 **Spin dyeing or bulk dyeing before fibre formation**
Prior to 1986 see the appropriate substrate code from F03-F+ in conjunction with the appropriate code F01-D+.
1986

F03-F31 **Other specific dyeing/printing processes**
Prior to 1986 see F03-F or F03-G.
1986

F03-F32 **Dyeing auxiliaries**
Excluding dye receptiveness improving agents for which see F03-C06; solvents, dyes. Prior to 1986 no specific code was available.
1986

F03-F33 **General dyeing/printing**
Prior to 1986 see F03-F or F03-G.
1986

F03-G	**PRINTING**
F03-G	**Printing** Applied from the start of CPI (1970) to the end of 1985 and was discontinued. From the start of 1986 see F03-F+. **1970-1985**
F03-H	**DECORATING TEXTILES, QUILTING**
F03-H	**Decorating textiles; quilting** Including metallising.
F03-J	**LAUNDERING, DRY CLEANING**
F03-J01	**Washing machines** Including (spin)driers. Prior to 1977 see F03-J. **1977**
F03-J02	**Ironing; smoothing** Prior to 1977 see F03-J. **1977**
F03-J03	**Laundering compositions** e.g. detergents. Prior to 1977 see F03-J. **1977**
F03-J04	**Dry cleaning** Prior to 1977 see F03-J. **1977**
F03-J	**General**
F03-K	**OTHER PROCESSES AND EQUIPMENT**
F03-K01	**Web handling, rolling, laying, widening** Prior to 1971 see F03-K. **1971**
F03-K02	**Analysis, inspection, testing, identification** Prior to 1971 see F03-K. **1971**
F03-K03	**Cutting, severing** **1994** *Previous code(s): F03-K*
F03-K	**Others** Including marketing, joining fabric lengths, general air conditioning of textile factories.

F04 TEXTILE APPLICATIONS

F04-A	**ROPES, CABLES**
F04-A	**Ropes, cables** Including metal wires.
F04-B	**ARTIFICIAL LEATHER, WALL, FLOOR COVERING**
F04-B01	**Artificial leather, oil cloth, suede**
F04-B01A	**. With polyurethane**
F04-B01B	**. With polyvinyl chloride**
F04-B02	**Roofing felt, linoleum, (vinyl) floor covering**
F04-B03	**Artificial fur** Prior to 1986 see F04-B in conjunction with F04-C and F04-D. **1986**
F04-B	**Other flexible sheet material** Including tarpaulins.
F04-C	**WEARING APPAREL**
F04-C01	**Underwear; baby linen (including diapers); handkerchiefs; foundation garments; pantyhose and tights** With F04-C02.
F04-C01A	**. Baby linen** Including diapers and baby training pants. **2005**
F04-C02	**Hosiery, socks, stockings, pantyhose and tights** With F04-C01.
F04-C03	**Outerwear** Including coats, jackets, shirts, skirts, dresses, jumpers.
F04-C04	**Garment fastenings, suspenders, slide fasteners, buttons and button holes, belts**
F04-C05	**Accessories** e.g. hats, footwear.
F04-C05A	**. Footwear** **2005**
F04-C06	**Protective clothing** **1994** *Previous code(s): F04-C+*
F04-C	**General** Including garment linings and interlinings. Prior to 1971 no specific code was available. **1971**

F04-D **HOME FURNISHINGS**

F04-D01 **Sheets, blankets, bed linen**

F04-D02 **Table linen, tablecloths**

F04-D03 **Draperies and upholstery, curtains**

F04-D04 **Carpets**

1994

Previous code(s): F04-D

F04-D **Home furnishings, general**
Including towels. Prior to 1971 no specific code was available.

1971

F04-E **INDUSTRIAL FABRICS AND PRODUCTS**

F04-E01 **Tyre cord, chafer fabric**

F04-E02 **Military**
Including parachutes, camouflage.

F04-E03 **Automotive**
Including seats, upholstery.

F04-E03A **. Airbags**

1994

Previous code(s): F04-E03

F04-E03B **. Safety belts**

1994

Previous code(s): F04-E03

F04-E03C **. Seats, upholstery**

1994

Previous code(s): F04-E03

F04-E04 **Surgical and medical products**
Including prostheses, sutures, dialysis, bandages, dressings.

F04-E05 **Filter material, general**
Including cigarette filters. Prior to 1971 see F04-E.

1971

F04-E05A **. Paper making machine felts, belts, Fourdrinier wires**
Prior to 1986 see F04-E05.

1986

F04-E06 **Thermal and acoustic insulation**
Prior to 1972 see F04-E.

1972

F04-E07 **Belts**
Prior to 1972 see F04-E.

1972

F04-E **Others**
Including hose and ion-exchange fibres.

F04-F **FABRICATION OF FABRIC PRODUCTS**

F04-F01 **Cutting fabric and other processes in making clothes**
Including hats, slide fasteners, button holes.

F04-F02 **Manufacturing footwear**

F04-F03 **Manufacturing other fabric products**

F04-F04 **Labelling, packaging**

F04-G **PRODUCTS MADE OF FIBRES OTHER THAN FABRICS**

F04-G01 **Optical fibres, cables**
For structures of fibres see F01-E01. Prior to 1986 see F04-G in conjunction with F01-E01.

1986

F04-G **Others**
Including brushes, fishing lines, edible products, gut for racquets, artificial seaweed for preventing erosion. Prior to 1971 no specific code was available.

1971

F05 PAPER AND WOOD

F05-A PAPER MAKING, CELLULOSE, FIBRE-BOARD

F05-A01 Fibrous raw material (and mechanical treatment)

F05-A02 Production of cellulose by removing non-cellulosic substances

F05-A02A . Pretreatment before digesting; pulping
Prior to 1971 see F05-A02.
1971

F05-A02B . Pulp after-treatment, working up waste paper, other processes, bleaching of pulp
Prior to 1971 see F05-A02.
1971

F05-A02C . Regeneration of pulp liquors, use of residues, treatment of waste water
Prior to 1971 see F05-A02.
1971

F05-A03 Treatment of digested materials before passing to the paper-making machine; adding substances to the web on the machine
Including methods of beating; mechanical purification, screening.

F05-A04 Paper-making and machines

F05-A04A . Wet end of machines, general
Including head boxes. Prior to 1971 see F05-A04.
1971

F05-A04B . Wet end, dewatering
Prior to 1971 see F05-A04.
1971

F05-A04C . Transfer wet to press, press section, drier section, other machine details
Prior to 1971 see F05-A04.
1971

F05-A04D . Complete machines, processes for making paper, cardboard
e.g. corrugated, blotting. Prior to 1971 see F05-A04.
1971

F05-A04E . Sterilization and cleaning of equipment
Including general air conditioning of paper factories, dust removal etc.
2005

F05-A05 Calenders, doctors, accessories for paper making machines; testing paper; winding up paper

F05-A05A . Testing paper
Including equipment.
2005

F05-A05B . Embossing, stamping and forming
Including equipment.
2005

F05-A06 Cardboard, paper manufacture not covered elsewhere; paper compositions and auxiliary materials; special paper or cardboard types
Including those prepared from basically non-cellulosic compositions

F05-A06A . Multiply materials
Including corrugated cardboard. Prior to 1971 see F05-A06.
1971

F05-A06A1 .. Corrugated cardboard/paper
2005

F05-A06A2 .. Multiply tissue and wipes
2005

F05-A06B . Paper, cardboard by applying coatings
Including adhesives and surface sizing. Prior to 1971 see F05-A06.
1971

F05-A06C . Paper, cardboard by adding polymers, resins
Prior to 1971 see F05-A06.
1971

F05-A06D . Paper, cardboard by adding (in)organic compounds
Including dyes and optical brighteners. Prior to 1971 see F05-A06.
1971

F05-A06E . Cardboard or paper prepared from basically non-cellulosic compositions
Prior to 1986 see F05-A06.
1986

F05-A07 Fibreboard, chipboard, manufacture of articles from fibrous cellulosic suspensions or papier-mache
e.g. disposable diapers.

F05-B **PRESERVATION AND TREATMENT OF WOOD**

F05-B01 **Preservation**
Including fungicide, insecticide, germicide. Prior to 1971 no specific code was available.
1971

F05-B **Plywood; other treatment**
Including staining, dyeing, bleaching, drying, flame proofing. Prior to 1971 no specific code was available.
1971

G:
PRINTING, COATING, PHOTOGRAPHIC

G01 Non-fibrous Inorganic Pigments, Fillers
G02 Coatings, Paints, Inks, Natural Resins, Polishes
G03 Adhesives
G04 Miscellaneous Compositions and Applications
G05 Printing
G06 Photographic Materials and Processes

G: PRINTING, COATING, PHOTOGRAPHIC

Code commenced 197001.

G01 NON-FIBROUS INORGANIC PIGMENTS, FILLERS

G01-A **PREPARATION, TREATMENT OR COMPOSITIONS OF SPECIFIC PIGMENTS, FILLERS**
When a pigment or filler contains more than one of the elements below, it is searchable using all the relevant codes.

G01-A01 **Alkaline earth metal compounds**

G01-A02 **Zinc compounds**

G01-A03 **Cadmium compounds**

G01-A04 **Lead compounds**

G01-A05 **Iron compounds**

G01-A06 **Silicon compounds**
Excluding clays, for which see G01-A10.

G01-A07 **Chromium compounds**

G01-A08 **Titanium compounds**

G01-A09 **Mercury compounds**

G01-A10 **Aluminum compounds**
Including clays.

G01-A11 **Carbon type**

G01-A12 **Metallic, general**

G01-A12A **. Aluminum (alloy) powders, flakes**
Prior to 1986 see G01-A12.
1986

G01-A13 **Cobalt, nickel and copper compounds**
2005

G01-A14 **Vanadium, molybdenum and tungsten compounds**
2005

G01-A15 **Rare earth metal compounds**
2005

G01-A16 **Antimony, tin and indium compounds**
2005

G01-A **Others**

G01-B **TREATMENT TO ENHANCE PROPERTIES OF INORGANIC PIGMENTS AND FILLERS**

G01-B **General treatment to enhance properties**
Applied from 1970 to the end of 1985 and was then discontinued.
1970-1985

G01-B01 **Physical treatment**
e.g. grinding, microwave. Prior to 1986 see G01-B.
1986

G01-B02 **Inorganic treatment**
Prior to 1986 see G01-B.
1986

G01-B03 **Organic treatment**
Including with polymer. Prior to 1986 see G01-B.
1986

G01-C **MULTICOMPONENT OR COMPOSITE PIGMENTS (CONTAINING AT LEAST ONE INORGANIC COMPONENT)**
2005

G02 COATINGS, PAINTS, INKS, NATURAL RESINS, POLISHES

G02-A **PAINTS, VARNISHES, LACQUERS, INKS, PENCIL LEADS, CRAYONS, OTHER COATINGS**

G02-A01 **Paints, varnishes, lacquers based on inorganic film formers**

G02-A01A **. Silicone based**
Prior to 1972 see G02-A01.
1972

G02-A02 **Paints, varnishes, lacquers based on organic film formers**

G02-A02A **. Natural polymers**

G02-A02B **. Synthetic polymers, general**
Excluding silicone polymers, for which see G02-A01A.

G02-A02B1 **.. Addition polymer based paint**
Indexed for the generic case.
1994
Previous code(s): G02-A02C, G02-A02D

G02-A02B2 **.. Condensation polymer based paint**
Indexed for the generic case.
1994
Previous code(s): G02-A02B

G02-A02C **. Acrylics, general**
Prior to 1972 see G02-A02B.
1972

G02-A02C1 **.. Containing epoxy groups**
Prior to 1977 see G02-A02C.
1977

G02-A02C2 **.. Hydroxyalkyl acrylates**
Prior to 1977 see G02-A02C.
1977

G02-A02C3 **.. Aminoalkyl acrylates**
Prior to 1977 see G02-A02C.
1977

G02-A02C4 **.. Acrylic nitriles, acids, amides, di- and polyacrylates**
Excluding acrylated resins, for which see the appropriate unmodified resin. Prior to 1986 see G02-A02C.
1986

G02-A02D **. Other vinyls and addition polymers**
Prior to 1972 see G02-A02B.
1972

G02-A02D1 **.. From diene or polyene monomers**
Excluding di- and poly- acrylates, for which see G02-A02C4. Prior to 1977 see G02-A02D.
1977

G02-A02D2 **.. Vinyl halide polymers**
Prior to 1977 see G02-A02D.
1977

G02-A02D3 **.. From vinyl carboxylates or unsaturated acids other than acrylics**
Or derivatives e.g. anhydride or ester. Prior to 1977 see G02-A02D.
1977

G02-A02D4 **.. Polymers from other unsaturated aromatics**
e.g. styrenes. Prior to 1977 see G02-A02D.
1977

G02-A02E **. Polyesters**
Including alkyds. Prior to 1972 see G02-A02B.
1972

G02-A02F **. Phenoplasts, aminoplasts**
Prior to 1972 see G02-A02B.
1972

G02-A02G **. Epoxy resins.**
Prior to 1972 see G02-A02B.
1972

G02-A02H **. Polyurethanes**
Prior to 1972 see G02-A02B.
1972

G02-A03 **Additives for paints, varnishes, lacquers**

G02-A03A **. Organic pigment**
Prior to 1972 see G02-A03.
1972

G02-A03B **. Antifouling additives**
Prior to 1977 see G02-A03.
1977

G02-A03C **. Paint and ink removers, correcting fluids**
Prior to 1977 see G02-A03.
1977

G02-A03D **. Inorganic pigment for paint**
1994
Previous code(s): G02-A03

G02-A04 **Printing and writing inks; pencil leads, crayons, general**

G02-A04A **. Inks**
Prior to 1977 see G02-A04.
1977

G02-A04B . **Dyes and pigments for inks, crayons**
Prior to 1977 see G02-A04.
1977

G02-A05 **Other coating compositions**
Prior to 1971 no specific code was available.
1971

G02-A05A . **For wire**
Including electrical conductors and cables. Prior to 1977 see G02-A05.
1977

G02-A05B . **For other electrical or magnetic material**
Prior to 1977 see G02-A05.
1977

G02-A05B1 .. **For magnetic recording materials**
For magneto-optical layers see also G06-D07.
1994
Previous code(s): G02-A05B

G02-A05C . **Paper coatings**
Prior to 1977 see G02-A05.
1977

G02-A05D . **Non-stick, release and fire-proof coatings**
Prior to 1977 see G02-A05.
1977

G02-A05E . **Corrosion-resistant coatings for metal; primers**
Prior to 1977 see G02-A05.
1977

G02-A05F . **Coatings for concrete, masonry, walls, (including water proofing for these substrates); road paints; traffic sign paints**
Prior to 1977 see G02-A05.
1977

G02-A05G . **Antifouling coatings**
1994
Previous code(s): G02-A05

G02-A05H . **Coatings on optical fibres**
1994
Previous code(s): G02-A05

G02-A05J . **Anti-graffiti coatings**
1994
Previous code(s): G02-A05

G02-A05K . **Coatings for glass**
(excluding G02-A05H) e.g. scratch resistance, anti-reflective, IR or UV absorption.
2005

G02-A06 **Painting processes with no specific paint**
1994

G02-A06A . **Paint spray booth cleaning/maintenance**
1994

G02-A07 **Shape and form of coatings**
2006

G02-A07A . **Powder coatings**
2006

G02-A07A1 .. **In slurry form**
2006

G02-B **NATURAL RESINS, DRIERS, FRENCH POLISH**

G02-B01 **Obtaining, purification, and chemical modification of natural resins**
e.g. oleo-resins.

G02-B02 **Obtaining spirits of turpentine**

G02-B03 **Obtaining, purifying and chemical modification of drying oils**

G02-B04 **Driers (siccatives)**

G02-B05 **Preparation of French polish**

G02-C **OTHER POLISHING COMPOSITIONS, SKI WAXES**

G02-C **Other polishing compositions; ski waxes**

G03 ADHESIVES

Macromolecular adhesives, other than glue or compositions based on them are classified in Section A, but their use for adhesive purposes is also classified here.

G03-A **GLUE, GELATIN**

G03-A **Glue; gelatin**

G03-B **OTHER ADHESIVES, GENERAL ADHESIVE PROCESSES**

G03-B01 **Inorganic**
Including silicone resins.

G03-B02 **Organic**

G03-B02A **. Natural polymers**
Excluding glue or gelatin, for which see G03-A and excluding rubber, for which see G03-B02B.

G03-B02B **. Natural or synthetic rubbers**

G03-B02C **. Synthetic polymers, general**

G03-B02D **. Synthetic polymers, addition**
Prior to 1971 see G03-B02C.
1971

G03-B02D1 **.. Acrylic polymers**
Prior to 1977 see G03-B02D.
1977

G03-B02D2 **.. Polymers from vinyl halides or vinyl carboxylates**
Prior to 1977 see G03-B02D.
1977

G03-B02D3 **.. Styrene polymers (optionally substituted); polymers from olefinic hydrocarbons**
Prior to 1977 see G03-B02D.
1977

G03-B02E **. Synthetic polymers, condensation**
Prior to 1971 see G03-B02C.
1971

G03-B02E1 **.. Aminoplasts, phenoplasts**
Prior to 1977 see G03-B02E.
1977

G03-B02E2 **.. Epoxy resins**
Prior to 1977 see G03-B02E.
1977

G03-B02E3 **.. Polyesters**
Prior to 1977 see G03-B02E.
1977

G03-B02E4 **.. Polyurethanes; polyureas; other isocyanate resin-based adhesives**
Prior to 1977 see G03-B02E.
1977

G03-B03 **Adhesive processes, general**

G03-B04 **Adhesive compositions in the form of film or foils; adhesive tape**
e.g. on carriers.

G04 MISCELLANEOUS COMPOSITIONS AND APPLICATIONS

G04-A **LUMINESCENT OR TENEBRESCENT MATERIALS**

G04-A01 **Photochromic or tenebrescent materials**
1994
Previous code(s): G04-A

G04-A **Luminescent materials; phosphor compositions**

G04-B **OTHER COMPOSITIONS, USES IN OTHER PROCESSES**

G04-B01 **Materials for heat transfer or for producing differences in temperature other than by combustion; antifreeze**
e.g. by change in physical state.

G04-B01A **. Halogen containing refrigerants**
Prior to 2008 see G04-B01.
2008

G04-B01A1 **.. Refrigerants containing fluorine as the only halogen**
Prior to 2008 see G04-B01.
2008

G04-B01A2 **.. Refrigerants containing both fluorine and chlorine**
Prior to 2008 see G04-B01.
2008

G04-B01A3 **.. Fluoroether refrigerants**
Prior to 2008 see G04-B01.
2008

G04-B01B **. Hydrocarbon refrigerants**
Prior to 2008 see G04-B01.
2008

G04-B01C **. CO_2 as refrigerant**
Prior to 2008 see G04-B01.
2008

G04-B01E **. Other specific chemicals as refrigerants**
Prior to 2008 see G04-B01.
2008

G04-B01F **. Refrigerant compositions or blends containing 2 or more refrigerants**
Prior to 2008 see G04-B01.
2008

G04-B02 **Materials for sealing and packing joints or covers**

G04-B03 **Antistatic**
Other than in Section A and G06-A03.

G04-B04 **Antislip; abrasive**
Other than in Section A.

G04-B05 **De-icing and de-misting**

G04-B06 **Fire-proofing**
Other than in Section A or F.

G04-B07 **Aerosol compositions**

G04-B08 **Degreasing, cleaning, scouring and bleaching**
Other than in Section D or F. Prior to 1972 see G04-B.
1972

G04-B09 **Flaw detection (including defectoscopy) and temperature sensitive compositions**
Prior to 1972 see G04-B.
1972

G04-B **Other compositions**
Including liquid crystals.

G05 PRINTING

G05-A **PRINTING PLATES**

G05-A **General**

G05-A01 **Lithographic (planographic)**

G05-A02 **Letterpress and deep relief (inc. flexographic)**

G05-A03 **Intaglio (gravure)**

G05-A04 **Stencils**

G05-B **PHOTOSENSITIVE RESISTS**
1970-1993

G05-B **Photosensitive resists**
1970-1993

G05-C **COLOUR PROOFING**

G05-C **Colour proofing**

G05-D **PRESSURE SENSITIVE COPYING MATERIALS**

G05-D **Pressure sensitive copying materials**
Prior to 1971 no specific code was available.
1971

G05-E **NON-RADIATION SENSITIVE COPYING MATERIALS**

G05-E **Non-radiation sensitive copying materials**
Including electrolytic recording. Prior to 1971 no specific code was available.
1971

G05-F **OTHER PRINTING MATERIALS AND PROCESSES**

G05-F01 **Decalcomanias, transfers, transfer compositions**
Prior to 1986 see G05-F.
1986

G05-F02 **Thermal heads**
1994
Previous code(s): G05-F

G05-F03 **Ink jets/ink jet printing**
For inks used in ink-jet printing see G02-A04+.
1994
Previous code(s): G05-F

G05-F **Other printing materials and processes**
Including magnetography; cleaning printing plates. Prior to 1971 no specific code was available.
1971

G06 PHOTOGRAPHIC MATERIALS AND PROCESSES

G06-A **NON-SENSITIVE AGENTS AND LAYERS**

G06-A01 **Subbing**

G06-A02 **Antihalation**
Including filters, screening dyes.

G06-A02A **. Anti-reflective layer**
2005

G06-A03 **Antistatic**

G06-A04 **Receiving**
Including nucleating, nuclei.

G06-A05 **Stripping, release**

G06-A06 **Binders**
Prior to 1971 see G06-A.
1971

G06-A07 **Electrically conductive layers for electrophotography**
Prior to 1972 see G06-A.
1972

G06-A08 **Barrier, protective, scratch resistant layers**
Prior to 1986 see G06-A.
1986

G06-A09 **Intensifying screens, conversion screens, storage phosphors for X-ray materials**
Prior to 1986 see G06-A in conjunction with G04-A, G06-D01 and G06-H07.
1986

G06-A10 **Intermediate layer**
Indexed where the function of the layer is unspecified.
1994
Previous code(s): G06-A

G06-A11 **Reflective layer**
1994
Previous code(s): G06-A

G06-A12 **Magnetic layer**
See also G02-A05B1.
1994
Previous code(s): G06-A

G06-A13 **Dielectric layer**
1994
Previous code(s): G06-A

G06-A **Other layers**
Including carrier, timing and anti-curl layers.

G06-B **SUPPORTS**

G06-B01 **Polymeric**

G06-B02 **Paper**

G06-B03 **Metal**

G06-B **Other supports**
e.g. glass.

G06-C **PHOTOSENSITIVE SYSTEMS BY TYPE**

G06-C01 **Photosensitive layers having an incorporated coupler**

G06-C02 **Kodachrome type colour materials**
i.e. soluble coupler reacts with oxidised developer to form insoluble dye.

G06-C03 **Dye destruction colour materials**
e.g. silver dye bleach materials.

G06-C04 **Electrophotographic colour materials**

G06-C05 **Direct positive materials**

G06-C06 **Print-out materials**
Including ablative systems.

G06-C07 **Photodevelopable or direct-print materials**

G06-C08 **Heat developable, photosensitive materials**

G06-C09 **Multicolour diffusion transfer materials**

G06-C09A **. Multicolour dye release diffusion transfer materials**
Where e.g. existing dyestuffs attached to ballast groups are released during development for diffusion. Prior to 1986 see G06-C09 in conjunction with G06-G10 and G06-G14.
1986

G06-C10 **Single colour diffusion transfer materials**

G06-C10A **. Single colour dye release diffusion transfer materials**
Where e.g. existing dyestuffs attached to ballast groups are released during development for diffusion. Prior to 1986 see G06-C10 in conjunction with G06-G01 and G06-G04.
1986

G06-C11 **Colloid transfer materials**

G06-C12 **Imbibition dye transfer systems**

G06-C13 **Additive colour systems**

G06-C14 **Elements with several (electro)-photographically active layers**
e.g. multilayer colour-sensitive systems, or multilayer electro-photographic systems. Prior to 1986 no specific code was available.
1986

G06-C14A **. Red sensitive layer**
Prior to 1986 no specific code was available.
1986

G06-C14B **. Blue sensitive layer**
Prior to 1986 no specific code was available.
1986

G06-C14C **. Green sensitive layer**
Prior to 1986 no specific code was available.
1986

G06-C15 **Releasing photographically active components on processing, other than dyestuffs**
Prior to 1986 no specific code was available for this concept. See the codes for the individual active components released.
1986

G06-C16 **Microencapsulated photosensitive systems**
1994
Previous code(s): G06-C

G06-C **Other systems and materials**
Including vesicular; systems with light induced adhesiveness developed by toning.

G06-D **APPLICATIONS**

G06-D01 **X-ray materials**

G06-D02 **Lithographic films, papers (high contrast)**

G06-D03 **Direct electron recording**

G06-D04 **Photoresists**
Excluding G06-D05+, G06-D06.

G06-D05 **Production of printing plates**
Prior to 1971 see G06-D.
1971

G06-D05A **. Electrophotographically**
Prior to 1986 see G06-D05.
1986

G06-D06 **Production of electrical elements**
Prior to 1971 see G06-D.
1971

G06-D06A **. Circuits and circuit components**
e.g. semiconductors
2005

G06-D06B **. Optoelectronic**
e.g. LCD, optical filters,wave guides.
2005

G06-D07 **Optical storage media**
Including optical discs, laser recording discs and magneto-optical discs. Prior to 1986 see G06-D.
1986

G06-D **Other applications**
Including microfilms, cine-sound tracks, identity cards; holograms (with G06-E).

G06-E **SPECIAL TECHNIQUES**

G06-E01 **Screening (half tones)**

G06-E02 **Masking**

G06-E03 **In-camera processing**
Including integral film packs, e.g. 'Polaroid'®.

G06-E04 **Coating**

G06-E05 **Drying**
Including during manufacture.

G06-E **Other**
Including holograms (with G06-D); silver recovery; packaging of photographic materials.

G06-F **RADIATION SENSITIVE SYSTEMS**
i.e. element in systems.

G06-F01 **Silver halide**

G06-F01A **. Silver halide tabular grain emulsion**
1994
Previous code(s): G06-F01

G06-F01B **. Silver halide core-shell emulsion**
1994
Previous code(s): G06-F01

G06-F02 **Diazo**

G06-F03 **Polymeric**

G06-F03A **. Photoconductors**
Prior to 1977 see G06-F03 in conjunction with G06-F06.
1977

G06-F03B **. Radiation-sensitive composition containing monomer**
Prior to 1977 see G06-F03.
1977

G06-F03C **. Radiation-sensitive composition containing polymer**
Prior to 1977 see G06-F03.
1977

G06-F03D **. Additives**
e.g. photosensitisers. Prior to 1977 see G06-F03.
1977

G06-F04 **Non-silver metals and their compounds**

G06-F05 **Radiation-sensitive dyes**

G06-F06 **Organic photoconductors, charge generators, charge transport materials**

G06-F07 **Inorganic photoconductors, charge generators, charge transport materials**

G06-F07A **. ZnO or Selenium**
Including selenium alloys or compounds. Prior to 1972 see G06-F07.
1972

G06-F08 **Heat sensitive**
Including thermographic and infra-red systems.

G06-F08A **. Containing novel active materials**
Such as (leuco) dyes, couplers, chromogenic compounds (colour formers), electron donors, electron acceptors. Prior to 1986 see G06-F08.
1986

G06-F **Others**
Including silver salts other than halide.

G06-G **PROCESSING AGENTS AND STEPS**
Black and white silver halide processing.

G06-G01 **Developing**

G06-G02 **Fixing**

G06-G03 **Stabilisation processing**

G06-G04 **Other processing steps**
Electrophotographic.

G06-G05 **Dry toning**

G06-G05A **. Dry toning composition**
2005

G06-G05B **. Substrates for electrophotographic printing**
2005

G06-G06 **Liquid toning**

G06-G07 **Charging**

G06-G08 **Other processing steps**

G06-G08A . **Imaging methods**
Including deformation of thermoplastic layers, electrophoretic compositions. Prior to 1972 see G06-G08.
1972

G06-G08B . **Toner transfer processes**
Prior to 1986 see G06-G08.
1986

G06-G08C . **Fusing, fixing processes**
Prior to 1986 see G06-G08.
1986

G06-G08D . **Charge transfer, latent image transfer processes**
Prior to 1986 see G06-G08.
1986

G06-G08E . **Cleaning processes**
2005

G06-G09 **Diazo processing (including ammonia vapour)**
Colour silver halide processing.

G06-G10 **Development**

G06-G11 **Bleaching**

G06-G12 **Fixing**

G06-G13 **Stabilisation processing**

G06-G14 **Other steps**

G06-G15 **Monobath processing**

G06-G16 **Reversal processing (two development steps give direct positive image)**

G06-G17 **Development of photosensitive resin systems**
Prior to 1986 see G06-G.
1986

G06-G18 **Image formation by exposure to ionising radiation, light etc.**
Prior to 1986 no specific code was available.
1986

G06-G **Others**

G06-H **PHOTOGRAPHIC AGENTS**

G06-H01 **Chemical sensitisers**

G06-H02 **Fungicides, bactericides**

G06-H03 **Antifoggants, emulsion/developer stabilisers**

G06-H04 **Covering power increasing agents**

G06-H05 **Image toners (non-electrophotographic)**

G06-H06 **Desensitisers**
Including electron acceptors.

G06-H07 **Spectral (optical) sensitisers**

G06-H07A . **Cyanines**

G06-H07B . **Merocyanines (neutrocyanine)**

G06-H07C . **Oxanols**

G06-H07D . **Pyrylium types**

G06-H08 **Couplers**

G06-H08A . **Phenolic (naphtholic)**

G06-H08B . **Pyrazolones**

G06-H08C . **Keto-methylene types**

G06-H08D . **Pyrazolotriazole couplers**
1994
Previous code(s): G06-H08

G06-H09 **Brighteners**

G06-H09A . **Oxazoles**

G06-H09B . **Stilbenes**

G06-H09C . **Coumarins**

G06-H09D . **Thiazoles**

G06-H10 **Mordants**

G06-H11 **Image stabilisers**

G06-H12 **Development accelerators**

G06-H13 **Development restrainers**

G06-H14 **Hardeners (used for anti-hardeners, crosslinking agents)**

G06-H15 **Plasticisers**

G06-H16 **Matting agents**

G06-H17 **Lubricants**

G06-H18 **Coating aids**

G06-H19 **Other specific agents**
Including materials such as solvents for incorporation of incompatible (e.g. hydrophobic) agents in photographic compositions or layers. Prior to 1986 see G06-H.
1986

G06-H **Miscellaneous materials of unspecified photographic use**

H: PETROLEUM

H01 Crude Oil and Natural Gas
H02 Unit Operations
H03 Transportation and Storage
H04 Petroleum Processing
H05 Refinery Engineering
H06 Gaseous and Liquid Fuels
H07 Lubricants and Lubrication
H08 Other Petroleum Products
H09 Fuels not of Petroleum Origin

H: PETROLEUM

Code commenced at CPI Week 197001.

H01 CRUDE OIL AND NATURAL GAS

H01-A **EXPLORATION**

H01-A01 **Geological; geophysical**
E.g. seismic exploration

H01-A01A **. Seismic surveying**
For exploration prior to well drilling. For well logging see H01-A02
2006

H01-A02 **Well logging, general**

H01-A02A **. Electric/magnetic logging**
Include NMR logging
1986

H01-A02B **. Radioactive logging**
1986

H01-A02C **. Acoustic logging**
1986

H01-A **Unclassified**
197031

H01-B **DRILLING**

H01-B01 **Marine structures and equipment**
Includes mooring and mudmat for offshore.

H01-B01A **. Fixed multi-well platforms**
1986

H01-B01B **. Mobile jack-up platforms**
1986

H01-B01C **. Drill ships**
1986

H01-B01D **. Semi-submersible platforms**
1986

H01-B01E **. Decommissioning of marine production platforms**
Including reuse of upper parts, such as decks.
2002

H01-B02 **Slim hole drilling**

H01-B03 **Rotary drilling**

H01-B03A **. Derricks, rig floor equipment**
197031

H01-B03A1 **.. Derricks**
1986

H01-B03A2 **.. Drilling mud mixing and return mud processing**
1986

H01-B03A3 **.. Hoisting and rotating equipment**
1986

H01-B03B **. Well control equipment**
Also includes logging-while-drilling and measuring and controlling downhole conditions/parameters, etc.
197031

H01-B03B1 **.. Logging while drilling**
1986

H01-B03B2 **.. Measuring procedures and equipment**
1986

H01-B03B3 **.. Valves and control equipment**
Including downhole blowout preventers.
1986

H01-B03C **. Subsurface equipment**
197031

H01-B03C1 **.. Drill bits**
1986

H01-B03C2 **.. Drill collars**
1986

H01-B03C3 **.. Drill pipe**
1986

H01-B03C4 **.. Kelly**
1986

H01-B03C5 **.. Drill and casing protectors, Centralisers**
2006

H01-B03C6 **.. Drilling riser**
2007

H01-B03D **. Transmission/generation of power, data etc.**
Includes cables, connectors, antennae etc. for downhole use.
2005

H01-B04 **Cable drilling**

H01-B05 **Other drilling methods and equipment**
Including electric, explosive, thermal and hydraulic, also includes under-reamer assemblies.

H01-B05A **. Directional and turbo-drilling**
1986

H01-B05B **. Coring**
E.g. sampling.
1986

H01-B06 **Drilling fluids**
1994

H01-B06A **. Water-based drilling fluids**
1986

H01-B06B **. Oil based drilling fluids**
1986

H01-B06C . **Drilling fluid additives** 1994

H01-B07 **Fishing and retrieval tools**

H01-B08 **Testing operations and equipment, general** 1986

H01-B **Unclassified**

H01-C **WELL COMPLETION, STIMULATING, AND SERVICING**

H01-C01 **Casing and tubing excluding well packers, general**

H01-C01A . **Well packers** 1986

H01-C01B . **Joining of casing**
Includes of formation of joints and lateral wellbore sections. 2005

H01-C02 **Cementing**
Includes plastering.

H01-C02A . **Methods and equipment** 1986

H01-C02B . **Cement compositions** 1986

H01-C03 **Fracturing; Fracking**

H01-C04 **Acidising**

H01-C05 **Perforating**

H01-C06 **Wellhead equipment, general**

H01-C06A . **Blowout preventers** 1986

H01-C07 **Screens and liners**

H01-C08 **Gravel packing**

H01-C09 **Consolidation of incompetent formations** 197031

H01-C10 **Servicing**
E.g. cleaning deposits. 197031

H01-C11 **Testing, control operations and equipment, general** 1986

H01-C12 **Water control compositions**
For methods, see H01-D14. 2005

H01-C13 **Cutting or destroying of packers, pipes, plugs, etc.**
Includes reconditioning of well casings, cutting and destroying of damaged pipes, windows, etc. 2012

H01-C14 **Lost circulation control/materials** 2012

H01-C **Unclassified** 197031

H01-D **PRODUCING**

H01-D01 **Oil-lifting equipment**

H01-D02 **Gas-lifting equipment**

H01-D03 **Pumps**

H01-D04 **Separators**

H01-D05 **Marine production equipment**

H01-D06 **Water flooding, general**

H01-D06A . **Brine flooding** 1986

H01-D06B . **Steam flooding** 1986

H01-D06C . **CO2 flooding** 1994

H01-D06D . **Polymer flooding** 2002

H01-D06E . **Alkaline flooding** 2002

H01-D07 **Repressuring**

H01-D08 **Thermal methods**
E.g. steam injection, microwaves, etc.

H01-D09 **Chemical methods**

H01-D10 **Oil shale treatment and equipment**

H01-D11 **Tar sands treatment and equipment**
E.g. bitumen extraction.

H01-D12 **Testing, control operations and equipment, general** 1986

H01-D13 **Methods using bacteria** 1994

H01-D14 **Water control methods**
For compositions, see H01-C12. 2005

H01-D **Unclassified**

H01-E **TREATING AND TESTING**
Does not include well treatment procedures already covered in H01-C:

H01-E01 **Emulsion breaking, desalting and dehydrating**

H01-E02 **Corrosion inhibiting**

H01-E03 **Testing crude oils** 2005

H01-E04 **Water treatment**
Includes composition e.g. anti-sludging agent and apparatus.
2010

H01-E05 **Scale inhibition**
2010

H01-E **Unclassified**

H01-F **NATURAL GAS**

H01-F01 **Field treatment and processing**
197031

H01-F02 **Liquefaction methods and equipment**
197031

H01-F **Unclassified**
197031

H01-G **EXTINGUISHING OIL WELL FIRES**
1994

H01-G01 **Explosives**
1994

H01-G02 **Capping**
1994

H01-G03 **Flame retardant materials**
2011

H01-G **General**
1994

H01-H **WELL KILLING**
2010

H01-H **General**
2010

H01-P **OIL AND GAS WELL PIPES**
Includes pipes used during well drilling, completion and production.
2010

H01-P **General**
2010

H01-R **DEPLETED OIL/GAS FIELDS**
2010

H01-R **General**
2010

H01-X **OTHER**
2010

H01-X **General**
Includes well tractors and protective clothing.
2010

H02 UNIT OPERATIONS

H02-A **DISTILLATION**

H02-A01 **Fractional**

H02-A02 **Atmospheric**

H02-A03 **Azeotropic**

H02-A04 **Extractive**

H02-A05 **Steam**

H02-A06 **Vacuum**

H02-A **Unclassified**
197031

H02-B **SORPTION**

H02-B01 **Molecular sieves**
Includes metal-organic frameworks.
2006

H02-B02 **Silica gel**

H02-B03 **Carbon**

H02-B04 **Urea**

H02-B05 **Pressure swing adsorption**
2002

H02-B **Unclassified**
197031

H02-C **SOLVENT EXTRACTION**

H02-C01 **Organic liquids**

H02-C02 **Inorganic liquids**

H02-C **Unclassified**
197031

H02-D **MISCELLANEOUS OPERATIONS**

H02-D01 **Ion exchange processes**
197031

H02-D02 **Separation by adduct (urea etc.)**
197031

H02-D03 **Centrifugal separation**
1986

H02-D04 **Membrane/filter separation**
1986

H02-D **Unclassified**
197031

H03 TRANSPORTATION AND STORAGE

H03-A **GATHERING LINES**

H03-A **General**

H03-B **PIPELINES**
Includes oil and gas transportation pumps.

H03-B01 **Fluid loss additives**
1994

H03-B02 **Installing/testing pipelines**
2002

H03-B03 **Pipeline accessories**
E.g. connectors.
2002

H03-B04 **Repairing/servicing pipelines**
Includes cleaning of pipelines.
2006

H03-B **General**

H03-C **TANKS, CARS AND TRUCKS**

H03-C **General**

H03-D **MARINE**

H03-D **General**
E.g. oil tankers.

H03-E **STORAGE TANKS AND CONTAINERS**

H03-E **General**

H03-E01 **Recondensation systems**
To prevent loss of HC, especially natural gases, to the atmosphere.
2005

H03-F **UNDERGROUND STORAGE**

H03-F **General**

H03-G **POLLUTION CONTROL, METHODS AND EQUIPMENT**
197031

H03-G **General**

H03-G01 **Marine oil pollution**
E.g. booms, skimmers, etc.
2002

H03-G02 **Soil contamination**
E.g. from oil spills.
2002

H03-X **OTHER TRANSPORTATION AND STORAGE OF OIL AND GAS**
197031

H03-X **Unclassified**

H03-X01 **Transferring oil or petroleum**
2005

H03-X02 **Testing**
E.g. testing and monitoring in storage applications, such as level of stored component, tank leakage.
2006

H04 PETROLEUM PROCESSING

H04-A TREATING

H04-A01 Sweetening

H04-A02 Metal contaminant removal

H04-A03 Nitrogen contaminant removal

H04-A04 Gum or gum former removal

H04-A05 With acid

H04-A06 With alkali

H04-A07 With hydrogen
E.g. hydrotreating.

H04-A08 Deasphalting

H04-A09 Deoiling

H04-A10 Dewaxing
Includes deparaffination/dewaxing.
2005

H04-A10A . Deparaffination/dehazing
Scope now covered by H04-A10.
2002-2004

H04-A Unclassified
197031

H04-B CRACKING

H04-B01 Thermal and coking

H04-B02 Catalytic

H04-B03 Hydrocracking

H04-B04 Other cracking methods
Includes cracking of hydrocarbons by electric means, electromagnetic or mechanical vibrations, by particle radiation or with gases superheated in electric arcs.

H04-B Unclassified
197031

H04-C REFORMING

H04-C01 Thermal

H04-C02 Catalytic

H04-C03 Hydroforming

H04-C Unclassified
197031

H04-D GASOLINE PREPARATION BY

H04-D01 Polymerisation

H04-D02 Alkylation

H04-D03 Isomerisation

H04-D Unclassified
197031

H04-E OTHER PROCESSES

H04-E01 Aromatization

H04-E02 Biosynthesis

H04-E03 Dehydrogenation

H04-E04 Gasification, steam reforming

H04-E05 Hydrocarbon synthesis

H04-E06 Hydrogen manufacture

H04-E07 Pollution control
Scope is covered by H05-L+ since 197031.

H04-E08 Hydrogenation
197031

H04-E09 Dealkylation
197031

H04-E10 Town gas production
197031

H04-E11 Isomerisation (non-gasoline production)
1994

H04-E12 Dearomatization
2002

H04-E13 Alkylation
2002

H04-E14 (De)Halogenation
2011

H04-E15 Etherification
2011

H04-E16 Oligomerisation
2012

H04-E17 Esterification
2013

H04-E18 (Unconventional) upgrading of heavy oil/bitumen
Other H04 manual codes can also be applied in conjunction with this code.
2021

H04-E18A . Upgrading using supercritical water
2021

H04-E18B . Upgrading by other means
2021

H04-E Unclassified
Includes all hydrocarbon conversion procedures not specifically covered elsewhere.

H04-F CATALYSTS

H04-F01 Preparation/composition
This code was retired in 197701. Catalyst production is now coded in H04-F05 and composition in H04-F06.

H04-F02	**General (no process specified)** 1977
H04-F02A	**. Treating** 1977
H04-F02B	**. Cracking** 1977
H04-F02C	**. Reforming** 1977
H04-F02D	**. Gasoline preparation** 1977
H04-F02E	**. Other processes** 1977
H04-F03	**Catalyst carriers** 1977
H04-F04	**Regeneration** 2002
H04-F05	**Catalyst production and manufacture** 2005
H04-F06	**Catalyst composition** 2010
H04-F	**Unclassified** 197031

H05 REFINERY ENGINEERING

H05-A	**FURNACES**
H05-A	**General**
H05-B	**TOWERS AND EQUIPMENT THEREFOR**
H05-B	**General**
H05-C	**PRESSURE VESSELS**
H05-C	**General**
H05-D	**PIPES, FITTINGS, VALVES**
H05-D	**General**
H05-E	**PUMPS AND COMPRESSORS**
H05-E	**General**
H05-F	**FLARES**
H05-F	**General**
H05-G	**ELECTRICAL EQUIPMENT**
H05-G	**General**
H05-H	**PRIME MOVERS**
H05-H	**General**
H05-J	**AUTOMATIC CONTROL EQUIPMENT**
H05-J	**Automatic control equipment** This code is only for automatic control equipment used at the refinery. If the control system is electrical, T06 and/or T01 codes might be required.
H05-K	**TEST EQUIPMENT AND TEST PROCEDURES** 1975
H05-K	**General**
H05-L	**POLLUTION CONTROL**
H05-L01	**Air pollution** 197031
H05-L02	**Water pollution** 197031
H05-L03	**Ground pollution** 2005
H05-L	**Pollution control, general** 197031
H05-M	**QUENCHING AND HEAT EXCHANGE EQUIPMENT** 1986
H05-M	**General**

H05-N	**REACTORS** **2002**
H05-N	**General**
H05-P	**CHEMICAL TREATMENT** **2002**
H05-P	**General** E.g. coke inhibition, defoaming, descaling, etc.
H05-X	**OTHER REFINERY EQUIPMENT AND METHODS** **1975**
H05-X	**Unclassified**

H06 GASEOUS AND LIQUID FUELS

H06-A	**GASEOUS FUELS**
H06-A01	**(Liquefied) petroleum gases**
H06-A02	**(Liquefied) natural gas**
H06-A03	**Hydrogen** **2002**
H06-A04	**Biofuel gases** E.g. methane production by digestion or fermentation of e.g. waste organic materials. **2002**
H06-A05	**Synthesis gas** **2010**
H06-A	**Unclassified** **197031**
H06-B	**LIQUID FUELS**
H06-B01	**Gasoline**
H06-B02	**Kerosene**
H06-B03	**Jet fuels**
H06-B04	**Diesel fuels**
H06-B04A	**. Biodiesel** Covers any diesel fuel containing components manufactured from vegetable oils of e.g. waste organic materials. **2005**
H06-B05	**Heating oils and fuel oils**
H06-B06	**Liquid fuels derived from waste polymer material** **2002**
H06-B07	**Other liquid biofuels** Any liquid fuels produced biologically other than biodiesel and alcohol. **2005**
H06-B08	**Alcohol fuels** Includes ethanol/methanol and alcohol-based fuels e.g. as used in Brazil. **2005**
H06-B09	**Emulsion fuels** **2006**
H06-B	**Unclassified** **197031**
H06-C	**POLLUTION CONTROL**
H06-C01	**Air** **197031**
H06-C01A	**. Catalytic**

H06-C01B **. Non-catalytic**
2006

H06-C02 **Water**
197031

H06-C03 **I.C. engine, catalytic**
1975

H06-C03A **. Oxidation of CO, NO and hydrocarbons**
1975

H06-C03B **. Reduction of N oxides**
1975

H06-C03B1 **.. Selective Catalytic Reduction (SCR)**
Injection of small amounts of urea and water into hot i.c. engine exhaust gas to reduce NOX production.
2007

H06-C03C **. Sulfur oxides**
2006

H06-C04 **I.C. engine, non-catalytic**
1975

H06-C04A **. By filtration**
Includes filter regeneration.
2005

H06-C04B **. By centrifugal force**
Includes particle separation by inertial mass. See also X25-H06 for electrical details of centrifugal separator.
2011

H06-C04C **. By electrostatic precipitation**
2012

H06-C05 **Detection, control and measurement of I.C. engine exhaust gases**
2002

H06-C06 **Testing, controlling and monitoring of exhaust treatment devices**
Includes measuring, testing, controlling and monitoring of filters, catalysts, etc.
2012

H06-C **Unclassified**
197031

H06-D **ADDITIVES**

H06-D01 **Antioxidants, stabilisers**
1986

H06-D02 **Corrosion and rust inhibitors**
1986

H06-D03 **Anti-icing agents, detergents, dispersants**
Includes surfactants.
1986

H06-D04 **Anti-knocking agents, combustion efficiency improvers**
1986

H06-D05 **Cloud/pour point depressants, fluidity improvers**
Includes additives for decreasing cold filter plugging point.
1986

H06-D06 **Friction reducing and antiwear agents**
1986

H06-D07 **Other specified, but unclassified functions**
1986

H06-D08 **Biocidal**
Includes anti-slime compounds.
2005

H06-D **Multifunctional and general**
1986

H06-E **TESTING FUELS (GASEOUS OR LIQUID)**
1994

H06-E **General**
1994

H06-F **MARKING FUELS**
1994

H06-F **General**
1994

H06-P **FUEL PREPARATION**
Includes manufacturing techniques/apparatus of liquid and gaseous fuels. Includes fuel additive production.
2012

H06-P **General**
Includes manufacturing techniques/apparatus of liquid and gaseous fuels.
2012

H06-X **OTHER FUEL ASPECTS**
2006

H06-X01 **Treatment of fuels**
Includes processes such as chemical, electrical and magnetic treatments as well as irradiation. For fuel separation, see H06-X02.
2006

H06-X02 **Separation of fuels**
e.g. removal of gaseous/liquid fuel from a mixture.
2012

H06-X03 **Recycling/regeneration of fuels**
2015

H06-X **General**
2006

H07 LUBRICANTS AND LUBRICATION

H07-A **SYNTHETIC**

H07-A **General, including lubricants of non-petroleum origin**

H07-A01 **Lubes of vegetable origin**
2005

H07-A02 **Oxygen-containing lubricants – general**
Includes (poly)ethers. Other specific examples of types of compounds which are oxygen-containing lubricants are coded in H07-A02A and H07-A02B.
2005

H07-A02A **. Carboxylic esters**
2007

H07-A02B **. Polyalkylene glycols (PAGs), polyalkylene oxides, polyoxyalkylenes**
2007

H07-A03 **Olefin polymers, Group IV oils**
Polyalphaolefins (PAO's).
2005

H07-A04 **Hydrocarbons**
e.g. alkyl benzenes.
2005

H07-B **MINERAL**

H07-B **General**

H07-B01 **Hydroprocessed or Hydrocracked Mineral Oils**
Extremely High Viscosity Index XHVI oils. Group II lubricants and Group III lubricants are by definition hydroprocessed /hydrocracked oils of specified viscosity ranges.
2005

H07-C **GREASES**

H07-C **General**

H07-D **SOLID OR SEMISOLID LUBRICANTS**

H07-D **General**

H07-D11 **Refrigeration lubricants**
Replaced by H08-D11. All H07-D11 coded documents will be corrected to H08-D11.
2005-2007

H07-E **LUBRICANTS USED IN THE GAS OR VAPOUR PHASE**

H07-E **General**

H07-F **LUBRICATION OF MACHINES**
including lubricating devices.

H07-F **General**

H07-G **ADDITIVES**
Includes additives used for speciality products given under H08-D.

H07-G01 **Antioxidants, stabilisers**

H07-G02 **Corrosion and rust inhibitors**

H07-G03 **Detergents, dispersants**

H07-G04 **Extreme pressure**

H07-G05 **Pour depressants**

H07-G06 **VI improvers**

H07-G07 **Lubricity**

H07-G08 **Multifunctional**

H07-G09 **Other specified, but unclassified functions**

H07-G10 **Biocidal**
2006

H07-G **General**

H07-H **USED LUBE OILS AND SPECIALITY PRODUCTS, RECOVERY OR TREATMENT**
197031

H07-H **General**

H07-J **TESTING OILS**
2002

H07-J **General**
2002

H07-K **MARKING OILS**
2002

H07-K **General**
2002

H07-L **LUBRICANT PRODUCTION**
Includes lubricant additive production.
2006

H07-L **General**
2006

H07-X **OTHER LUBRICATION ASPECTS**
197031

H07-X **Unclassified**

H08 OTHER PETROLEUM PRODUCTS

H08-A **WAXES**

H08-A **General**

H08-B **ASPHALT**

H08-B **General**
e.g. bitumen.

H08-C **RESIDUUM**

H08-C **General**

H08-D **SPECIALITY PRODUCTS**

H08-D01 **White oils**

H08-D02 **Antifreeze**

H08-D03 **Solvents**

H08-D04 **Cutting oils, emulsions (including those of non-petroleum origin)**

H08-D05 **Hydraulic fluids (including those of non-petroleum origin)**

H08-D06 **Textile oils**

H08-D07 **Metalworking fluids**
Until 200601, code entitled 'Rolling oils'. This code covers all metal working fluids including rolling oils since 200601.
2006

H08-D08 **Electrical insulating oils (including those of non-petroleum origin)**
Includes electrorheological fluid.
1986

H08-D09 **Heat transfer fluids**
1986

H08-D10 **For lubrication of electrical components**
2005

H08-D11 **Refrigeration lubricants**
Replaces H07-D11. All H07-D11 coded documents will be corrected to H08-D11. See also J07-A09.
2007

H08-D12 **Magnetorheological fluid**
2011

H08-D **Speciality oils, unclassified/general**

H08-E **OTHER PRODUCTS**

H08-E01 **Carbon black**
197031

H08-E01A **. Activated carbon**
2002

H08-E02 **Petroleum coke**
197031

H08-E03 **Proteins**
197031

H08-E04 **Fuel cells**
Scope covered by L03-E04 and X16-C codes.
197031-2005

H08-E05 **Surfactants, detergents**
197031

H08-E06 **(Unrefined) products used as binders**
197031

H08-E07 **Emulsifiers, foam regulators and wetting agents**
2005

H08-E10 **Biocidal**
2005

H08-E **Other products, general/unclassified**
197031

H09 FUELS NOT OF PETROLEUM ORIGIN

H09-A **DESTRUCTIVE DISTILLATION OF CARBONACEOUS MATERIALS FOR GAS, TAR, COKE ETC.**

H09-A01 **Coal hydrogenation, liquefaction, etc.**
1975

H09-A01A **. In situ (underground) treatment of coal (combustion, liquefaction, etc.)**
1975

H09-A02 **Coke ovens, apparatus, operation, etc.**
1975

H09-A02A **. Metallurgical coke production**
1975

H09-A02B **. Handling and charging equipment**
Includes discharging and quenching equipment.
1986

H09-A **General and Unclassified**

H09-B **WORKING UP OF PEAT, PRODUCTION OF PYROLIGNEOUS ACID**

H09-B **General**

H09-C **PRODUCER GAS, WATER GAS, SYNTHESIS GAS PRODUCTION FROM SOLID CARBONACEOUS MATERIALS**

H09-C **General**
e.g. gasification.

H09-D **TREATMENT OF GASES CONTAINING CO**

H09-D **General**
e.g. coke oven gas treatment.

H09-E **ACETYLENE PRODUCTION BY DRY/WET METHODS**
Including purification of fuels containing acetylene.

H09-E **General**

H09-F **OTHER FUELS AND THEIR TREATMENT**
Including briquettes, firelighters, solidified fluid fuels general.

H09-F01 **Briquettes, firelighters, solidified fluid fuels**
1986

H09-F02 **Industrial waste treatment**
1986

H09-F03 **Municipal and agricultural waste treatment**
1986

H09-F04 **Pyrolysis and catalytic treatment of polymers and waste plastic**
e.g. to produce fuel oils and gases.
2002

H09-F **General**

H09-G **COAL-FUEL SLURRIES**
included in H09-X prior to 198601.

H09-G01 **Oil-coal slurries**
1986

H09-G02 **Aqueous-coal slurries**
1986

H09-G03 **Additives**
1986

H09-G **General**
1986

H09-H **OTHER TREATMENT OF COAL**

H09-H01 **Deashing**
1986

H09-H02 **Desulfurisation**
1986

H09-H03 **Coal additives**
2006

H09-H04 **Froth flotation**
2012

H09-H **General and unclassified**
1986

H09-X **OTHER NON-PETROLEUM FUELS AND PROCESSING**

H09-X **Unclassified**

J:
CHEMICAL ENGINEERING

J01 Separation
J02 Mixing, Crushing, Spraying
J03 Electrochemical Processes, Electrophoresis
J04 Chemical/Physical Processing/Apparatus
J05 Boiling and Boiling Apparatus
J06 Storing/Distributing Gases/Liquids
J07 Refrigeration, Ice, Liquefaction/Solidification
J08 Heat Transfer and Drying
J09 Furnaces, Kilns, Ovens, Retorts

J: CHEMICAL ENGINEERING

Code commenced at CPI week 197031.

J01 SEPARATION

J01-A	**EVAPORATION, DISTILLATION, SUBLIMATION**
J01-A01	**Evaporation**
J01-A02	**Liquid-gas mass transfer, general**
J01-A02A	**. Distillation** 1972
J01-A02A1	**.. Azeotropic or extractive distillation** 2002
J01-A02A2	**.. Distillation columns** 2002
J01-A02A3	**.. Column fittings, packings, plates, trays** 2002
J01-A02A4	**.. Other distillation apparatus** 2002
J01-A02B	**. Distillation methods and apparatus** 2005
J01-A03	**Condensation of vapours**
J01-A04	**Sublimation**
J01-A	**Unclassified**
J01-B	**CRYSTALLISATION**
J01-B	**General**
J01-C	**SOLVENT EXTRACTION, DIALYSIS, OSMOSIS**
J01-C01	**Solvent extraction (liquid-liquid extraction only)**
J01-C01A	**. Solid-liquid extraction** 2015
J01-C02	**Displacing liquid by means of another fluid**
J01-C03	**Semi-permeable membrane separation processes**
J01-C03A	**. By reverse osmosis** 1986
J01-C03B	**. By dialysis** 1986
J01-C03B1	**.. By hemodialysis** 1986
J01-C04	**Micro-filters, ultra-filters and nano-filters** 2002
J01-C	**Unclassified**
J01-D	**TREATING LIQUIDS**
J01-D01	**With ad(ab)sorbents, general** Includes preparation and regeneration of ad(ab)sorbents
J01-D01A	**. Chromatography** 1972
J01-D02	**(De)gasification of liquids**
J01-D03	**Emulsion breaking, coagulation** 1972
J01-D04	**Ion exchange** 1972
J01-D04A	**. Regeneration of ion exchangers** 1994
J01-D05	**Removal of contaminant by complexing or chelation** 1994
J01-D06	**Catalytic decomposition** 2002
J01-D07	**Biological treatment** 2005
J01-D08	**Using electricity** 2011
J01-D	**Unclassified**
J01-E	**TREATING GASES AND/OR VAPOURS**
J01-E01	**Recovering volatile solvent vapours from gases** Includes drying of gases.
J01-E01A	**. Dehumidification** 2006
J01-E01B	**. Deodorization** 2006
J01-E02	**Treating waste gases, general** 1972
J01-E02A	**. By wet scrubbing** Includes liquid ad(ab)sorbent preparation and regeneration. 1972
J01-E02A1	**.. Characterised by acidic/alkaline scrubbing liquid** 1977
J01-E02A2	**.. Characterised by redox/complexing scrubbing liquid** 1977
J01-E02A3	**.. Process control and arrangements** 1977
J01-E02B	**. With ad(ab)sorbents, general** Includes preparation and regeneration of ad(ab)sorbents. 1972

J01-E02B1 **.. Molecular sieves**
Includes zeolites.
2006

J01-E02B2 **.. Metal-organic frameworks**
2006

J01-E02B3 **.. Activated carbon**
2013

J01-E02C **. With membranes or ion exchangers**
1977

J01-E02C1 **.. Ion transport membranes**
2005

J01-E02D **. By catalytic methods**
1977

J01-E02E **. Treating waste gases using dry reactive powder e.g. Ca(OH)2**
1994

J01-E02F **. Solid reagent complexing with gas**
1994

J01-E02G **. Ammonia**
1994

J01-E02H **. By other means**
e.g. plasma, bacterial or centrifugal method.
1994

J01-E02H1 **.. Using plasma**
2005

J01-E02H2 **.. Centrifugal methods**
2005

J01-E02H3 **.. By biological methods**
2005

J01-E02H4 **.. By combustion**
2006

J01-E02H5 **.. Using ozone**
2006

J01-E02H6 **.. Using UV ray**
2012

J01-E02I **. Treating fuels with additives to reduce evolution of SOx+NOx**
1994

J01-E03 **Gas separation, general**
1972

J01-E03A **. Gas chromatography**
1972

J01-E03B **. By wet scrubbing**
Includes liquid ad(ab)sorbent preparation and regeneration.
1986

J01-E03C **. Using ad(ab)sorbents, general**
Includes preparation and regeneration of ad(ab)sorbents.
1986

J01-E03C1 **.. Molecular sieves**
Includes zeolites.
2006

J01-E03C2 **.. Metal-organic frameworks**
2006

J01-E03C3 **.. Activated carbon**
2013

J01-E03D **. By pressure swing adsorption**
Includes vacuum swing adsorption.
1986

J01-E03E **. Using semi-permeable membrane**
1986

J01-E03F **. By catalytic methods**
1986

J01-E03G **. Claus plant processes with removal of S**
1994

J01-E03H **. By biological methods**
2005

J01-E03I **. Using UV ray**
2012

J01-E03J **. Temperature swing adsorption**
2013

J01-E **Unclassified**

J01-F **SEPARATION OF SUSPENDED PARTICLES FROM LIQUIDS**

J01-F01 **By sedimentation**
Includes flotation techniques for clarifying liquids, precipitation or flocculation.

J01-F02 **By filtration processes**

J01-F02A **. Gravity filters; filter presses; pressure filters**

J01-F02B **. Cartridge filters; ultra filters**

J01-F02C **. Filters with mobile filter elements**
Has priority over J01-F02A and -F02B.

J01-F02D **. Filtering devices**
e.g. trivial uses, such as bath tubs or swimming pool filters.

J01-F02E **. Filtering of magnetisable materials**
1994

J01-F02E1 **.. Filtering of liquids by applying electrical charge**
1994

J01-F02X **. For filtration of specific substances**
May be used with other J01-F codes if specific method is claimed.
2006

J01-F02X1 **.. Water**
2006

J01-F02X2 **.. Blood**
2006

J01-F02X3 **.. Oil**
Includes lubricants.
2006

J01-F02X4 **.. Fuel**
2006

J01-F02X5 **.. Molten metal**
2012

J01-F03 **By centrifugal processes**

J01-F04 **Dewatering e.g. sludge by compression between belts**
1994

J01-F05 **Magnetic or electrostatic separation**
2011

J01-F **Unclassified**

J01-G **SEPARATION OF DISPERSED PARTICLES FROM GASES/VAPOURS**

J01-G01 **Pre-treatment of gas or vapour**

J01-G02 **By gravity, inertia, centrifugal force**

J01-G03 **By filtration**
Includes filters making use of electricity and magnetism.

J01-G03A **. Regeneration/cleaning of filters**
1977

J01-G03B **. Especially designed for waste gases**
1977

J01-G03C **. For air inflow**
e.g. vehicle air intake, clean room.
2006

J01-G04 **Electrostatic and magnetic precipitation**
Includes electrostatic filters.
1977

J01-G05 **(De)gassing powders and other solids**
1972

J01-G06 **Wet scrubbing**
Only for removal of particulates from gas, otherwise consider J01-E02A.
2006

J01-G09 **Other methods**
2006

J01-G **Unclassified**

J01-H **FILTERING MATERIALS**

J01-H01 **Regenerating filters**
1994

J01-H02 **Filtering materials**
2005

J01-H02A **. Filter materials for liquids treatment**
2005

J01-H02B **. Filter materials for gases treatment**
2005

J01-H02C **. With antibacterial effect**
Replaces J01-H03. All J01-H03 coded documents will be corrected to J01-H02C.
2007

J01-H03 **With antibacterial effect**
Replaced by J01-H02C. All J01-H03 coded documents will be corrected to J01-H02C.
2005-2006

J01-H **General**

J01-J **SEPARATION OF ISOTOPES**

J01-J **General**

J01-K **SOLID/SOLID SEPARATION**

J01-K01 **Solid separation using liquids, pneumatic tables, jigs**

J01-K02 **Magnetic or electrostatic separation**

J01-K03 **Flotation; differential sedimentation**

J01-K04 **Sieving, screening, etc. (by gas currents). etc.**

J01-K **Unclassified**
Includes solid-solid separation by leaching.

J01-L **CENTRIFUGAL APPARATUS**

J01-L01 **Centrifuges**

J01-L02 **Free vortex flow apparatus; cyclones**

J01-L **Unclassified**

J01-X	**OTHER SEPARATION PROCESSES AND APPLICATIONS**
J01-X	**General and unclassified**
J01-X01	**Contaminants and their removal methods** e.g. for soil. **2006**
J01-X01A	**. Removal of organic contaminants** **2005**
J01-X01B	**. Removal of inorganic contaminants** **2005**
J01-X01C	**. Removal by biological methods** **2005**
J01-X02	**Separation of racemates** **2005**

J02 MIXING, CRUSHING, SPRAYING

J02-A	**MIXING, DISPERSING ETC.**
J02-A01	**Mixing processes**
J02-A02	**Mixing apparatus, general**
J02-A02A	**. Flow mixers** **1972**
J02-A02B	**. Rotary mixers** **1972**
J02-A02C	**. Mixer accessories** **2002**
J02-A03	**Emulsification/dispersion** Until 200601, code entitled 'Emulsifying or dispersing agents' This code has now been expanded to include subcodes for processes (J02-A03A), apparatus (J02-A03B) and agents (J02-A03C).
J02-A03A	**. Processes** From 2006 this code has been narrowed to specifically code emulsification or dispersion processes. Prior to 2006 this code covered emulsification/dispersion in general. **2002**
J02-A03B	**. Apparatus** **2006**
J02-A03C	**. Agents** **2006**
J02-A	**Unclassified**
J02-B	**CRUSHING, PULVERISING DISINTEGRATING**
J02-B01	**Plant in general**
J02-B02	**Processes in general**
J02-B03	**Accessories**
J02-B	**Unclassified**
J02-C	**SPRAYING ATOMISING, APPLYING LIQUIDS TO SURFACES**
J02-C01	**Spraying, atomising; nozzles, in general**
J02-C02	**Applying (semi-) liquids to surfaces, in general**
J02-C	**Unclassified**
J02-X	**OTHER MIXING, CRUSHING AND SPRAYING** Includes dosing and dispensing devices.

J02-X **Unclassified**

J03 ELECTROCHEMICAL PROCESSES, ELECTROPHORESIS

J03-A **ELECTROCHEMICAL PROCESSES OR APPARATUS**

J03-A01 **For ozone generation**
2006

J03-A **General**
e.g. ozone generation.

J03-B **ELECTROLYTIC PROCESSES OR APPARATUS**
See also X25-R codes for electrical aspects of electrolysis.

J03-B01 **Electrodes**
Including manufacture and coating.
1972

J03-B02 **Cell design**
1972

J03-B03 **Separators**
1977

J03-B03A **. Ion exchange membranes based on fluorocarbon polymers**
1986

J03-B04 **Alkali halide electrolysis**
1986

J03-B05 **Electrolyte**
2011

J03-B09 **General electrolytic processes**
Includes control and testing methods and apparatus of electrolytic cell and processes.
2005

J03-B **General and unclassified**
See also X25-R codes for electrical aspects of electrolysis.

J03-C **ELECTROPHORESIS**

J03-C **General**

J03-D **ELECTRODIALYSIS**

J03-D **General**
1972

J03-D01 **Electro-osmosis**
1994

J03-X **OTHER ELECTROCHEMICAL METHODS**

J03-X **Unclassified**

J04 CHEMICAL/PHYSICAL PROCESSES/APPARATUS

J04-A **COLLOID CHEMISTRY, ETC.**

J04-A01 **Catalysis processes and apparatus**
Use J04-E+ from 197701.
1970-1976

J04-A02 **Catalysts**
Use J04-E+ from 197701.
1970-1976

J04-A03 **Colloid chemistry**
For production of nanoparticles (sols) see J04-F02A.

J04-A04 **Single crystals**

J04-A05 **Granulation, pelleting**

J04-A06 **Encapsulation**

J04-A07 **Powder coatings**
For general coatings, consider M13-H if formed on metal or L02-J03 if involving ceramics.

J04-A **Unclassified**

J04-B **LABORATORY APPARATUS AND METHODS**

J04-B01 **Analytical methods/equipment, general**

J04-B01A **. Spectral**
Includes techniques such as NMR, ESR and mass spectrometry.
1972

J04-B01A1 **.. Mass spectrometry**
2006

J04-B01A2 **.. Optical spectroscopy**
Includes cellular imaging.
2006

J04-B01B **. Specific reactions and reagents**
1972

J04-B01B1 **.. Sugar e.g. for diabetes monitoring**
2005

J04-B01B2 **.. For alcohol**
2006

J04-B01C **. Chromatography**
1977

J04-B01C1 **.. Thin Layer Chromatography (TLC)**
See also S03-E09C3.
2005

J04-B01C2 **.. High Performance Liquid Chromatography (HPLC)**
See also S03-E09C5.
2005

J04-B01C5 **.. Gas Chromatography (GC)**
See also S03-E09C1.
2005

J04-B01C5A **... GC-MS**
2006

J04-B01C6 **.. Liquid chromatography-mass spectrometry (LC-MS)**
2013

J04-B02 **Lab-on-chip (LOC)**
See also S03-H01 codes.
2005

J04-B03 **Detection and analysis of nucleic acids, proteins and amino acids**
See also S03-E14H codes.
2005

J04-B04 **Microanalysis**
Includes microfluidic analysis. May be used with other J04-B codes, and S03 codes likely.
2006

J04-B05 **Biosensor**
See also S03-E03C1.
2011

J04-B **Laboratory apparatus, general**

J04-C **TEST, CONTROL AND SAMPLING, INDUSTRIAL AND LABORATORY**

J04-C01 **Sampling**

J04-C02 **Investigation by properties**
E.g. determination of pressure, temperature, concentration, pH, etc.

J04-C02A **. pH Monitoring**
See also S03-F10 codes.
2005

J04-C02B **. Electrical**
E.g. resistance, conductivity, capacitance etc. See also S03-E02 codes. From 2006 the title of this code has been changed from 'Conductivity' to 'Electrical' though the content of the code has not changed.
2005

J04-C02C **. Optical**
e.g. absorption, fluorescence.
2006

J04-C02D **. Mechanical properties e.g. creep resistance**
2007

J04-C03 **Investigation by method**
E.g. monitoring of reactions. Includes testing devices and apparatus.

J04-C04 **Investigation by material**

J04-C04A **. Gas sensors**
See also S03-E02, S03-E03, S03-E14P codes.
2005

J04-C **General and unclassified**

J04-D **FLUIDISED BED APPARATUS**
1972-2002

J04-D **General**
Not used from 2002 Wk01; scope is now covered by J04-E07A and J04-X03A.
1972-2002

J04-E **CATALYSIS**
See also J04-A, and N codes for catalysts, catalytic processes and applications

J04-E01 **Catalytic processes**
1977

J04-E02 **Apparatus for catalytic processes**
Not used from 2002 Wk01; scope is now covered by J04-(E06-09).
1977-2002

J04-E03 **Catalyst supports**
1977

J04-E04 **Catalysts**
1977

J04-E04A **. Redox**
1977

J04-E04B **. (De)hydrogenation**
1977

J04-E04C **. Photocatalysts**
2005

J04-E04D **. Electrocatalyst**
e.g. for electrode catalysts, for use in electrolyzer, fuel cell etc.
2006

J04-E05 **Regeneration/recovery**
Also includes waste or spent catalyst disposal methods/apparatus.
1977

J04-E06 **Reactors – general or unclassified**
2002

J04-E07 **Apparatus for gas phase reactions**
2002

J04-E07A **. Fluidized or moving beds, risers**
2002

J04-E07B **. Fixed beds**
2002

J04-E07C **. Tubular, tube bundles**
2002

J04-E08 **Apparatus for liquid, gas/liquid processes**
2002

J04-E08A **. Apparatus for homogeneous phases, solutions**
2002

J04-E08B **. Columns; counter-current reactions**
2002

J04-E08B1 **.. Apparatus for reactive or catalytic distillation**
2002

J04-E09 **Other apparatus for catalytic processes**
2002

J04-E09A **. Waste treatment apparatus**
2005

J04-E09B **. For sensor applications**
2006

J04-E09C **. Photocatalytic apparatus**
See J04-E04C for photocatalysts per se.
2006

J04-E10 **Testing of catalysts and devices**
2006

J04-E11 **Catalyst production**
Includes catalyst support production.
2007

J04-E **Unclassified**
1977

J04-F **MICROSCALAR PROCESSES**

J04-F01 **Microprocesses**
See J04-X04 for microreactors.
2006

J04-F02 **Nanostructure production**
See L02-H04 if carbon is involved.
2006

J04-F02A **. Nanoparticles**
2006

J04-F02A1 **.. Composite particles**
Includes coated particles.
2006

J04-F02B **. Other regular forms**
e.g. nanotubes, nanorods, nanowhiskers.
2006

J04-F02C **. Nanofilms**
2006

J04-F02D **. Nanocrystals**
2012

J04-F	**Unclassified**
J04-X	**OTHER CHEMICAL METHODS** Used for all processes and apparatus of chemical interest with no specific application elsewhere in CPI
J04-X01	**Reactors for plasma processes** **1994**
J04-X02	**Forming films by Langmuir-Blodgett processes** **1994**
J04-X03	**Reactors for non-catalytic chemical processes** **2002**
J04-X03A	**. Fluidised bed apparatus** **2006**
J04-X04	**Miniaturised reaction apparatus** Includes microfluidic devices, MEMS devices, see also relevant U12-B03F codes for MEMS. See J04-F01 for microprocesses. **2002**
J04-X05	**Gas generators** **2012**
J04-X	**Unclassified**

J05 BOILING AND BOILING APPARATUS

J05-A	**BOILING AND BOILING APPARATUS**
J05-A	**General**

J06 STORING/DISTRIBUTING GASES/LIQUIDS

J06-A **GAS HOLDERS OF VARIABLE CAPACITY**

J06-A **General**

J06-B **VESSELS FOR LIQUIDS OR COMPRESSED, LIQUEFIED OR SOLIDIFIED GASES, GAS-HOLDERS, DECANTATION AND VAPORISATION OF LIQUEFIED OR SOLIDIFIED GASES**

J06-B01 **Pressure vessels**

J06-B02 **Vessels not under pressure**

J06-B03 **Filling vessels with gases**

J06-B04 **Discharging gases from pressure vessels**

J06-B05 **Discharging gases from vessels not under pressure**

J06-B06 **Gas solvents and gas adsorbents**

J06-B06A . **For batteries and fuel cells**
For supplying hydrogen specifically for fuel cells.
2005

J06-B06B . **For vehicle fuel tanks**
For H2/CH4 powered IC engines (i.e. not fuel cells).
2005

J06-B06C . **Gas adsorbents**
2006

J06-B06C1 .. **Molecular sieves**
Includes zeolites.
2006

J06-B06C2 .. **Metal-organic frameworks**
2006

J06-B06C3 .. **Alloys**
2013

J06-B07 **Vessel details**

J06-B08 **Control**
Includes controlling flow rates, thermal energy management, safety arrangements etc.
2007

J06-B **General and unclassified**

J06-C **PIPE SYSTEMS, PIPELINES**

J06-C01 **Pipeline systems; pipe construction**

J06-C02 **Supervising or controlling operations**

J06-C **General and unclassified**

J07 REFRIGERATION, ICE, LIQUEFACTION/ SOLIDIFICATION

J07-A **REFRIGERATION MACHINES, PLANTS OR SYSTEMS, COMBINED HEATING AND REFRIGERATION SYSTEMS**

J07-A01 **Compression type**

J07-A02 **Sorption type**

J07-A03 **Other types having single mode of operation, combination of heating and refrigeration; special energy sources**
Includes heat pumps.

J07-A04 **Components**

J07-A05 **Arrangements**

J07-A06 **Control and safety devices**

J07-A07 **Air conditioners**
Includes humidifiers.
1972

J07-A08 **Refrigeration media**
1972

J07-A09 **Lubricants for refrigeration media**
See also H08-D11.
1994

J07-A10 **Refrigeration and a/c sealants**
Injecting into systems to seal pinholes. Includes e.g. organosilanes.
2007

J07-A **General and Unclassified**

J07-B **FREEZING OF (SEMI)LIQUIDS**

J07-B01 **Ice production**

J07-B02 **Ice or snow production for special purposes**

J07-B03 **Ice working and distribution**

J07-B **General and unclassified**

J07-C **REFRIGERATORS, COOLING AND FREEZING APPARATUS**

J07-C01 **Devices not associated with refrigerating machinery**

J07-C02 **Devices associated with refrigerating machinery**

J07-C03 **Structural parts of general application, etc.**

J07-C **General and unclassified**
e.g. domestic use, such as cold stores and cold boxes.

J07-D **GAS LIQUEFACTION, SOLIDIFICATION OR SEPARATION BY PRESSURE OR COLD**

J07-D01 **Liquefying or solidifying gases**

J07-D02 **Separating gases by liquefaction or solidification**

J07-D03 **Cold exchangers or accumulators**

J07-D **General and unclassified**

J08 HEAT TRANSFER AND DRYING

J08-A **STEAM OR VAPOUR CONDENSERS**

J08-A01 **Steam or vapour separated from coolant by walls**

J08-A02 **Steam or vapour comes in direct contact with coolant**

J08-A03 **Employing combination of above two; other condensers**

J08-A04 **Combinations of two or more condensers**

J08-A05 **Auxiliary systems, arrangements or devices**

J08-A06 **Controlling arrangements especially for condensers**

J08-A **General and unclassified**

J08-B **DIRECT-CONTACT (NON-INTERACTIVE) HEAT-EXCHANGERS**

J08-B01 **Direct-contact trickle coolers**
e.g. cooling towers.

J08-B02 **Other direct-contact heat-exchange apparatus**

J08-B **General and unclassified**

J08-C **HEAT-EXCHANGERS WITHOUT DIRECT CONTACT**

J08-C01 **Having stationary conduit assemblies for one medium only, the media contacting different sides of conduit wall**

J08-C02 **As above, but stationary conduits for both media**

J08-C03 **Having moving conduit assemblies**

J08-C04 **Employing intermediate heat-transfer media or bodies**
Includes heat pipes.

J08-C **General and unclassified**

J08-D **HEAT TRANSFER APPARATUS, DETAILS OF GENERAL APPLICATIONS**

J08-D01 **Elements for heat exchangers**

J08-D02 **Preventing deposits or corrosion**

J08-D03 **Special features**

J08-D04 **Modifying heat transfer**

J08-D05 **Control arrangements**

J08-D06 **Heat transfer media**
1972

J08-D07 **Geothermal heat transfer**
1994

J08-D08 **Heat exchange from exhaust gases**
1994

J08-D **General and unclassified**
Includes solar heat collectors not codable elsewhere.

J08-E **HEAT-EXCHANGER FOR CLEANING**

J08-E01 **Appliances for cleaning**

J08-E02 **Processes for cleaning**

J08-E03 **Details of cleaning**

J08-E **General and unclassified**

J08-F **DRYING PROCESSES**

J08-F01 **Preliminary treatment of solids/objects to aid drying**

J08-F02 **Drying solids with application of heat**

J08-F03 **Drying solids without application of heat**

J08-F04 **Freeze drying**
e.g. sublimation drying.
1972

J08-F05 **Compression drying**
2007

J08-F **General and Unclassified**

J08-G **DRYING MACHINES AND APPARATUS**

J08-G01 **Articles at rest or locally agitated**

J08-G02 **With non-progressive movement**

J08-G03 **With progressive movement**

J08-G04 **Combination of at least two of above kinds**

J08-G05 **Rotary dryers**
1972

J08-G06 **Spray dryers**
1972

J08-G07 **Compression dryers**
2007

J08-G **General and unclassified**

J08-H **DRYING, GENERAL APPLICATIONS**

J08-H01 **Drying using air or gas currents**

J08-H02 **Through air drying**
2007

J08-H **General and unclassified**

J08-S **HEAT STORAGE**

J08-S01 **. Materials**
2011

J08-S02 **. Apparatus**
2011

J08-S **General and unclassified**
2011

J09 FURNACES, KILNS, OVENS, RETORTS

J09-A **FURNACE CONSTRUCTION**
Excluding processes therein.

J09-A01 **Furnaces with stationary charge**

J09-A02 **Stationary furnaces with mechanically-moved charge**

J09-A03 **Rotary furnaces**

J09-A04 **Open sintering apparatus**

J09-A **General and unclassified**

J09-B **FURNACE ACCESSORIES**

J09-B01 **Construction features**

J09-B01A **. Refractories**
2002

J09-B02 **Handling and support charge**
e.g. rams, screw feeders, etc.

J09-B03 **Preheating charge; cooling; using waste heat**

J09-B04 **Control and safety devices**
Includes measuring and testing devices.

J09-B **General and unclassified**

J09-C **INCINERATION AND OTHER WASTE DISPOSAL METHODS**
Includes disposal of waste gases, liquids and solids not codable elsewhere.
1975

J09-C **General**

J09-C01 **Disposal of waste other than by incineration**
1994

J09-C01A **. Recycling of waste**
2006

J09-C01B **. Fermentation of waste**
e.g. for compost. Consider H09-F code if fermentation for fuel, and D05 for details.
2006

J09-C02 **By incineration**
2005

J10-A **STORAGE OF WASTES IN LANDFILLS**

J10-A **Storage of wastes in landfills**
1994

K:
NUCLEONICS, EXPLOSIVES, PROTECTION

K01 Firefighting
K02 Protection, Breathing Apparatus
K03 Explosive Charges, Blasting
K04 Explosives, Matches
K05 Nuclear Reactors
K06 Nuclear Power Plant
K07 Health Physics
K08 Nucleonics, X-Ray Techniques, etc
K09 Applications

K: NUCLEONICS, EXPLOSIVES, PROTECTION

Code commenced at CPI 197031.

K01 FIREFIGHTING

K01-A	**FIREFIGHTING, FIRE-EXTINGUISHING COMPOSITIONS** Does not include flame retardants.
K01-A	**General**

K02 PROTECTION, BREATHING APPARATUS

K02-A	**PROTECTION AGAINST NBC AGENTS**
K02-A	**General**
K02-A01	**Chemical** **2005**
K02-A02	**Biological** **2005**
K02-A03	**Nuclear** **2005**
K02-A04	**Detection and analysis of NBC agents** **2006**
K02-B	**BREATHING APPARATUS (CHEMICAL AGENTS *ONLY*)**
K02-B	**General**

K03 EXPLOSIVE CHARGES, BLASTING

Covers physical and mechanical aspects of explosives and ammunition.

K03-A	**EXPLOSIVE CHARGES, AMMUNITION, MISSILES, FUSES**
K03-A01	**Cartridge, shell, bomb and mine construction, filling and manufacture** **1972**
K03-A02	**Projectiles and warheads** **1972**
K03-A02A	. **Lethal projectiles** e.g. bullets, missiles. **2006**
K03-A02B	. **Non-lethal projectiles** e.g. plastic baton rounds, tranquilizer delivery systems, paintballs, immobilising weapons. **2006**
K03-A03	**Arming, fusing, safety mechanisms** Include storage and packaging of ammunition. **1972**
K03-A04	**Decommissioning of ammunition** **2006**
K03-A	**Unclassified**
K03-B	**BLASTING**
K03-B	**General**
K03-X	**EXPLOSIVE CHARGES**
K03-X	**General**

K04 EXPLOSIVES, MATCHES

K04-A **EXPLOSIVES (CHEMICAL ASPECTS)**
Use K04-E+, K04-F+ and K04-G+ from 198601.
1970-1985

K04-A01 **Based on inorganic nitrates**
1970-1985

K04-A02 **Based on (per)chlorates**
1970-1985

K04-A03 **Sprengel-type**
1970-1985

K04-A04 **Manufacture and treatment**
1970-1985

K04-A **Unclassified**
1970-1985

K04-B **DETONATORS, PYROPHORIC COMPOSITIONS**

K04-B01 **Detonating or primer compositions; (non)-electric detonators; primers; fuses, blasting-caps, and accessories**

K04-B02 **Chemical contact igniters; chemical lighters; pyrophoric compositions; flints**

K04-B **Unclassified**

K04-C **FIREWORKS, SMOKE GENERATION, INCENDIARY AND GAS ATTACK COMPOSITIONS, GENERATION OF GAS FOR BLASTING OR PROPULSION**

K04-C01 **Rocket fuels, propellants**
1972

K04-C02 **Gas generators**
e.g. for automotive air bags.
2006

K04-C **Others**
Includes chemical inflation of liferafts, etc.

K04-D **MATCHES**
Includes matchbox making machinery, etc.

K04-D **General**

K04-E **EXPLOSIVES (CHEMICAL ASPECTS)**
See K04-A+: prior to 198601

K04-E01 **Emulsion, water gel, slurry explosives, general + unclassified**
1986

K04-E01A **. Based on nitrate oxidiser**
1986

K04-E01A1 **.. ANFO**
1986

K04-E01B **. Based on (per)chlorate oxidiser**
1986

K04-E02 **Organic nitro compound-containing explosives**
Nitrocellulose, nitroglycerine, nitroglycol, TNT etc. but excluding propellants containing NG; see K04-C01.
1986

K04-E03 **Explosives containing inorganic or organometallic compounds**
Including lead azide, lead styphnate etc.
1986

K04-E04 **Promoters, enhancers and regulatory sequences**
1986

K04-E **General**
1986

K04-F **EXPLOSIVES MANUFACTURE/TREATMENT**
See K04-A04 prior to 198601

K04-F **Explosives treatment, general +unclassified**
1986

K04-F01 **Explosives manufacture**
2002

K04-F02 **Explosives disposal**
2002

K04-F03 **Explosives detection**
E.g. in luggage
2002

K04-G **NOVEL ADDITIVES FOR EXPLOSIVE COMPSNS.**
(Sensitisers, stabilisers, density control agents, etc.) see K04-A prior to week 198601.

K04-G **General**
1986

K05 NUCLEAR REACTORS

K05-A **REACTOR PROCESSES**

K05-A01 **Fast fission**

K05-A02 **Thermal**

K05-A02A **. Gas-cooled**

K05-A02B **. Water-cooled**

K05-A02C **. Liquid metal cooled**

K05-A03 **Nuclear fusion reactors**
1986

K05-A03A **. Plasma containment**
1986

K05-A03B **. Fusion targets (fuel)**
1986

K05-A03C **. Constructional features**
Including blanket arrangements.
1986

K05-A **Unclassified**
Including controlled fusion reactors prior to 198601.

K05-B **REACTOR COMPONENTS AND ACCESSORIES**

K05-B01 **Pressure vessels**

K05-B02 **Shielding**

K05-B03 **Coolants, general**

K05-B03A **. Liquid metal coolants**
1972

K05-B04 **Fuel elements - general**

K05-B04A **. Chemical processes; enrichment of U**
Includes some extraction of U, Pu etc. from their ores.
1972

K05-B04B **. Fuel element construction**
1972

K05-B05 **Moderators, general**

K05-B05A **. Heavy water; enrichment, deuterium production**
1972

K05-B06 **Control and mechanisms, general**

K05-B06A **. Neutron flux control, control rods, general**
1972

K05-B06A1 **.. Shutdown and start-up procedures**
1986

K05-B06A2 **.. Emergency control**
1986

K05-B06B **. Measurement/control of coolant flow**
1986

K05-B06C **. Defective fuel rod location/ detection**
1986

K05-B06D **. Measurement of other operating parameters**
1986

K05-B07 **Accessories**
Covers accessories of general or unspecified application; specific accessories are coded according to their use under a K05-B: code.

K05-B07A **. Fuel rod handling/transfer**
1986

K05-B07B **. Used fuel storage facilities**
1986

K05-B07C **. Waste removal/treatment**
e.g. desalting condensate.
1986

K05-B07D **. Servicing/maintenance apparatus**
1986

K05-B07E **. Cables, piping, connectors**
1986

K05-B07E1 **.. Valves**
2002

K05-B07F **. Pumps**
1986

K05-B07G **. Other components**
1986

K05-B07J **. Inspection apparatus**
2006

K05-B08 **Manufacture of reactor and components**
2012

K05-B10 **Materials for reactors and components**
2005

K05-B **Unclassified**

K06 NUCLEAR POWER PLANT

K06-A **STEAM RAISING PLANT**

K06-A **General**

K06-B **HEAT EXCHANGERS**

K06-B **General**

K06-C **RECOVERY OF FUEL, ETC.**

K06-C **General**

K06-X **OTHER NUCLEAR PLANT ASPECTS**
Includes thermoelectric converters.

K06-X **General**

K07 HEALTH PHYSICS

K07-A **PROTECTIVE MEASURES, MONITORING, SHIELDING, CLOTHING ETC.**

K07-A01 **Personal dosimeters**
1972

K07-A01A **. Industrial monitoring**
2002

K07-A02 **Shielding, general**
1986

K07-A02A **. Transport/storage containers**
1994
Previous code(s): K07-A02

K07-A02B **. Fall-out shelters**
1994

K07-A02C **. Shielding plants and equipment**
2002

K07-A02D **. Shielding personnel**
2002

K07-A03 **Decontamination of industrial sites**
1986

K07-A03A **. Decontamination of personnel/clothing**
2002

K07-A **Others**

K07-B **RADIOACTIVE WASTE TREATMENT, ETC.**

K07-B **General**

K07-B01 **Concentration, solidification, encapsulation**
1986

K07-B01A **. Preparation for long-term storage**
1986

K07-B02 **Waste gas treatment**
1986

K07-B03 **Waste liquid treatment**
2002

K07-X **OTHER PROTECTIVE AND WASTE TREATMENT TECHNIQUES AND APPARATUS**

K07-X **General**

K08 NUCLEONICS, X-RAY TECHNIQUES, ETC.

K08-A **NUCLEAR OR X-RAY MEASUREMENT**

K08-A **General**
E.g. detection.

K08-A01 **Neutron counters**
1972

K08-A02 **Charged particle counters**
2005

K08-A03 **Gamma ray and cosmic ray counters**
2005

K08-A04 **X-ray measurement**
2005

K08-B **CONVERSION OF CHEMICAL ELEMENTS, PRODUCING/MODERATING NEUTRONS**

K08-B **General**

K08-C **ENERGY FROM RADIOACTIVE SOURCES, UTILISING COSMIC RADIATION**

K08-C **General**

K08-D **NUCLEAR EXPLOSIVES**
Includes nuclear explosion simulation.

K08-D **General**

K08-E **X-RAY TECHNIQUES**

K08-E **General**

K08-E01 **X-ray imaging**
2005

K08-E02 **X-ray therapy or treatment**
2005

K08-F **PLASMA TECHNIQUES**

K08-F **General**

K08-G **PARTICLE ACCELERATORS AND CYCLOTRONS**
2002

K08-G **General**
2002

K08-H **IRRADIATION**
2002

K08-H **General**
2002

K08-H01 **Medical**
2002

K08-H02 **Food**
2002

K08-X **OTHER NUCLEAR TECHNIQUES**
Includes general isotope separation.

K08-X **General**

K08-X01 **Isotope separation**
2006

K09 APPLICATIONS

K09-A	**PLASTICS**
K09-A	**General**
K09-B	**MEDICINE**
K09-B	**General**
K09-B01	**Imaging, use of isotopes, tracers** **2005**
K09-B02	**Radiotherapy** **2005**
K09-C	**AGRICULTURE**
K09-C	**General**
K09-D	**FOOD**
K09-D	**General**
K09-D01	**Irradiation** E.g. to improve shelf-life. **2005**
K09-D02	**Testing** **2005**
K09-E	**RADIOCHEMISTRY**
K09-E	**General**
K09-F	**TEXTILES**
K09-F	**General**
K09-G	**PHOTOGRAPHY**
K09-G	**General**
K09-H	**PETROLEUM**
K09-H	**General**
K09-J	**METALLURGY**
K09-J	**General**
K09-K	**GENERAL ENGINEERING**
K09-K	**General**
K09-L	**CONTROL GEAR ENGINEERING**
K09-L	**General**
K09-X	**OTHER NUCLEAR APPLICATIONS**
K09-X	**General**

L:
GLASS, CERAMICS, ELECTRO(IN)ORGANICS

L01 Glass, Vitreous Enamels
L02 Refractories, Ceramics, Cement
L03 Electro-(in)organics
L04 Semiconductors

L: GLASS, CERAMICS, ELECTRO(IN)ORGANICS

Code commenced at CPI 197031.

L01 GLASS, VITREOUS ENAMELS

L01 **Glass, vitreous enamels, general**
1986

L01-A **CHEMICAL COMPOSITIONS**

L01-A01 **Alkalis and alkaline earths, general**

L01-A01A **. Soda lime glasses**
1972

L01-A01B **. Other alkali(ne earth) glasses (more than 5%)**
1972

L01-A01C **. Containing minor amounts alkali (less than 5%)**
1972

L01-A02 **Pd, Pt and rare earths**

L01-A02A **. Lanthanide-containing glass**
2005

L01-A02B **. Platinum and palladium containing glass**
2005

L01-A03 **Other metals, general**

L01-A03A **. Alumina-bearing glasses**
1972

L01-A03B **. Colouring oxide additions**
1972

L01-A03C **. Other modifying oxides**
Oxides of all metals of groups Ib, IIb, III, IV, Vb, VIb, VIIb and VIII, but oxides for modifying borate/borosilicate glasses - see L01-A06B, L01-A06D.
1972

L01-A03C1 **.. Lead oxide**
1986

L01-A03C2 **.. Zinc oxide**
1986

L01-A04 **0-50% silica**

L01-A05 **50-100% silica**

L01-A06 **Borate and borosilicate, general**

L01-A06A **. Unmodified borate**
1972

L01-A06B **. Modified borate (modified with non-metallic compounds and oxides of transition metals)**
1972

L01-A06C **. Unmodified borosilicate**
1972

L01-A06D **. Modified borosilicate (modified with non-metallic compounds and oxides of transition metals)**
1972

L01-A07 **Other non-metals, general**

L01-A07A **. Oxide network formers (oxides of P and group Va, VIa and VIIa metals)**
1972

L01-A07B **. Non-oxide glasses (sulfates, phosphides, halides, chalcogenides)**
1972

L01-A08 **Glass ceramics, crystallised glass compositions**

L01-A09 **Glass composition with special properties e.g. luminescent glass**
2012

L01-A **Unclassified**
including vitreous alloys.

L01-B **TREATMENT OF BATCH**

L01-B **General**

L01-B01 **Preparation of precursors for glass**
1972

L01-B02 **Reuse/recycling of glass**
2006

L01-C **GLASS MANUFACTURE (REPLACING FURNACE)**

L01-C01 **For general application**

L01-C02 **Design and construction of melting tanks**

L01-C03 **Operation, working and control of melting tanks**

L01-C04 **Glass delivery from melting tank**

L01-C05 **Crucibles**
1986

L01-C06 **Glass manufacture by sol-gel process**
1986

L01-C **Unclassified**
Including crucibles for glass melting.

L01-D **FORMING FLAT GLASS**

L01-D01 **Drawing glass from the melt**

L01-D02 **Rolling and casting glass**

L01-D03 **Forming glass in contact with a liquid surface, general (float glass production)**

L01-D03A **. Bath chamber**

L01-D03B **. Glass treatment in the chamber**

L01-D03C **. Thickness control**

L01-D04 **Wire reinforced glass sheet manufacture**
1986

L01-D05 **Glass sheet manufacture by sol-gel process**
1986

L01-D **Unclassified**
Including wire reinforced glass.

L01-E **FORMING HOLLOW-WARE**

L01-E01 **General**
1970-1985

L01-E02 **Gob formation**
Including cutting, jets.

L01-E03 **Blowing glass**
Including blow moulding.

L01-E04 **Pressing glass**

L01-E05 **Moulding glass**

L01-E06 **Moulds**

L01-E07 **Transfer mechanisms**
1972

L01-E08 **Shaping glass manufactured by sol-gel process**
1986

L01-E **Unclassified**

L01-F **OTHER FORMING PROCESSES**

L01-F01 **General**
1970-1985

L01-F02 **Tube, rod and cylinder formation**

L01-F03 **Glass fibre manufacture**

L01-F03A **. Surface treatment**

L01-F03A1 **.. Coating optical glass fibres**
1986

L01-F03B **. Nozzles for fibre formation**
1972

L01-F03C **. Ancillary equipment**
1972

L01-F03D **. Forming rovings (fibre twisting, plaiting)**
1972

L01-F03E **. Post forming**
Including cutting fibre mat.
1972

L01-F03F **. Optical fibre preform manufacture**
1986

L01-F03F1 **.. Core and sheath composition**
1986

L01-F03F2 **.. Glass soot manufacture and deposition on core or sheath**
1986

L01-F03F3 **.. Depositing glass films on core or sheath**
Except L01-F03F2.
1986

L01-F03F4 **.. Fibre preform manufacture using preformed sheath and core rod**
1986

L01-F03F5 **.. Organic coatings**
2002

L01-F03F6 **.. Inorganic coatings**
2002

L01-F03F7 **.. Optical and other coatings**
2002

L01-F03G **. Optical fibre drawing and/or spinning**
1986

L01-F03H **. Optical fibre cutting and joining**
1986

L01-F03J **. Multicore and elliptical single core optical fibre manufacture**
1986

L01-F03K **. Apparatus for manufacturing optical fibres**
1986

L01-F03L **. Optical fibre cable manufacture**
1986

L01-F03M **. Optical fibres, general**
1986

L01-F04 **Shaping glass to special forms**

L01-F05 **Shaping glass manufactured by sol gel process**
1986

L01-F06 **Vapour deposition of glass to form layers**
1986

L01-F07 **Foamed glass**
1986

L01-F **Unclassified**
Including glass manufacture by methods other than melting and casting, and sintering; especially foamed glass manufacture. Also includes radioactive waste disposal in glass.

L01-G **POST FORMING TREATMENT**

L01-G01 **General**

L01-G01A **. Transfer and handling**
1972

L01-G02 **Annealing, sintering**

L01-G03 **Thermal and chemical toughening**

L01-G04 **Surface coating of glass**

L01-G04A **. Coating glass bottles**
1986

L01-G04B **. Coating glass sheet with organic material**
1986

L01-G04C **. Coating glass sheet with inorganic material**
1986

L01-G04C1 **.. Coating glass sheet with metallic material**
2011

L01-G04D **. Coating optical components**
1986

L01-G04E **. Coating glass tableware**
1986

L01-G04F **. Coating techniques**
2010

L01-G04F1 **.. PVD, CVD and sputtering**
2010

L01-G04F2 **.. Other coating methods**

L01-G04F2A **... Electrostatic coating**
2011

L01-G04F2B **... Spin coating**
2011

L01-G04F2C **... Sol gel coating**
2011

L01-G04G **. Coating other glass forms**
Includes tubes and unspecified forms
2011

L01-G04G1 **.. Coating glass with organic materials**
See L01-G04B for coating glass sheet with organic material.
2011

L01-G04G2 **.. Coating glass with inorganic materials**
See L01-G04C for coating glass sheet with inorganic material.
2011

L01-G04G3 **.. Coating glass with metallic materials**
See L01-G04C1 for coating glass sheet with metallic material.
2011

L01-G05 **Surface modification (not mechanical)**
Includes colouring, titurisation etc.

L01-G05A **. Doping glass surface**
e.g. to change refractive index for wave guides.
1986

L01-G05B **. Patterning glass**
2011

L01-G05C **. Etching**
Includes glass frosting.
2011

L01-G06 **Mechanical surface treatment**

L01-G07 **Cutting of flat glass**

L01-G08 **Cutting of glass other than flat**

L01-G09 **Decorating glass**
Including special colouring.

L01-G10 **Bending glass**

L01-G11 **Cleaning glass**
2010

L01-G **Unclassified**

L01-H **JOINING GLASS**

L01-H01 **General**
1970-1985

L01-H02 **Laminated glass**
Specific laminates covered by codes in L01-H03 to L01-H09 sections take preference over this code.

L01-H03 **Joining glass by soldering/welding**
From 2011 this code is expanded to include welding e.g. ultrasonic welding. Includes sealing and soldering glass.

L01-H03A **. Glass to glass**
2011

L01-H03B **. Glass to plastic/polymers**
2011

L01-H03C **. Glass to ceramic**
2011

L01-H03D **. Glass to metals**
2011

L01-H03E **. Glass to semiconductors e.g. silicon**
2011

L01-H03X **. Glass to other materials**
Includes wood, paper etc.
2011

L01-H04 **Joining glass by fusion**
Includes thermal, thermocompression bonding, hot isostatic pressing. Exclude vitreous enamelling which is coded in L01-H06.

L01-H04A **. Glass-metal seals**
1986

L01-H04B **. Joining glass to ceramics**
1986

L01-H04C **. Glass to glass**
2011

L01-H04D **. Glass to plastic/polymers**
2011

L01-H04E **. Glass to semiconductors e.g. silicon**
2011

L01-H04X **. Glass to other materials**
Includes wood, paper etc.
2011

L01-H05 **To other material with interlayer**
e.g. of plastics.

L01-H05A **. Glass-plastic seals**
Including (sealing) double glazing units.
1994

L01-H05B **. Glass to glass**
2011

L01-H05C **. Glass to ceramic**
2011

L01-H05D **. Glass to metals**
2011

L01-H05E **. Glass to semiconductors e.g. silicon**
2011

L01-H05X **. Glass to other materials**
Includes wood, paper etc.
2011

L01-H06 **Vitreous enamelling**

L01-H07 **By sealants**
Including adhesives.

L01-H07A **. Glass to glass**
2011

L01-H07B **. Glass to plastic/polymers**
2011

L01-H07C **. Glass to ceramic**
2011

L01-H07D **. Glass to metals**
2011

L01-H07E **. Glass to semiconductors e.g. silicon**
2011

L01-H07X **. Glass to other materials**
Includes wood, paper etc.
2011

L01-H08 **Glazes**
1972

L01-H09 **Other bonding methods**
2011

L01-H09A **. Glass to glass**
2011

L01-H09B **. Glass to plastic/polymers**
2011

L01-H09C **. Glass to ceramic**
2011

L01-H09D **. Glass to metals**
2011

L01-H09E **. Glass to semiconductors e.g. silicon**
2011

L01-H09X **. Glass to other materials**
Includes wood, paper etc.
2011

L01-H **Unclassified**

L01-J **FINISHED PRODUCT HANDLING**

L01-J01 **General**
1970-1985

L01-J02 **Quality control**

L01-J03 **Filling glass containers**

L01-J04 **Packing and storage**

L01-J **Unclassified**

L01-K **GLASS CERAMICS**

L01-K01 **General**
1970-1985

L01-K02 **Process and apparatus**

L01-K03 **Applications**

L01-K **Unclassified**

L01-L **APPLICATIONS OF GLASS**

L01-L01 **Building**

L01-L02 **Vehicles**

L01-L03 **Laboratory**

L01-L04 **Electrical and electronic**

L01-L05 **Optical**
Including fibres.

L01-L06 **Packaging**
Including bottling, etc.

L01-L07 **Medicinal/Dental uses**
2002

L01-L08 **Household/office use**
Includes tableware, furniture etc.
2010

L01-L **Unclassified**

L01-M **TESTING OF GLASS**
Includes all measuring during processing of glass.
2005

L02 REFRACTORIES, CERAMICS, CEMENT

The heading "Cements" (L02-C) refers to the chemical composition and preparation of hydraulic inorganic materials prior to addition of water. The heading "Concretes" (L02-D) refers to the same materials after addition of water despite the fact that they are often called "cements" when in the wet state.

L02 **Refractories, ceramics, cement general**
1986

L02-A **MANUFACTURING METHODS, EQUIPMENT**

L02-A01 **General**

L02-A02 **Raw material preparation and treatment**
Including powder, paste or slurry production, calcination and presintering of powders.

L02-A02A . **Sol gel techniques**
Ceramic manufacture by sol gel.
1994

L02-A02B . **PVD, CVD and sputtering techniques**
e.g. to form diamond films.
1994

L02-A02C . **Foaming**
Includes forming porous ceramics. For lightweight concretes, see L02-D03.
2011

L02-A03 **Shaping, drying**
Including slip casting, clay extrusion, pressing, moulding.

L02-A03A . **Mould release agent**
2011

L02-A04 **Sintering, firing, hot-pressing, hot extrusion**
Including kiln furniture.

L02-A05 **Melting and casting**
Including fusion of ceramics, but see L02-A03 for slip casting.

L02-A06 **Flame and plasma spraying**

L02-A07 **Decorating and glazing**

L02-A08 **Testing/control**

L02-A09 **Single crystal growing (ceramics)**
1972

L02-A10 **Cleaning**
2010

L02-A11 **Cutting/welding**
2010

L02-A12 **Surface treatment**
Includes etching, marking, engraving and polishing.
2010

L02-A13 **Ceramic waste treatment/reuse/recycling**
2011

L02-A14 **Nanomaterials**
2011

L02-A **Unclassified**

L02-B **PREPARATION OF MATERIALS**
Include novel compositions and treatment of these materials.

L02-B01 **Lime(stone)**

L02-B02 **Magnesia and dolomite**

L02-B03 **Slags**

L02-B04 **By-products of lime and magnesia**

L02-B05 **Expanded clay**
1972

L02-B06 **Other clays**
1972

L02-B07 **Asbestos**
Including disposal of waste products.
1972

L02-B08 **Mineral fibres**
e.g. from ceramic oxides, ores, rocks.
1972

L02-B **Unclassified**

L02-C **CEMENTS**

L02-C01 **General**
1970-1986

L02-C02 **Portland; apparatus for manufacture of cements from raw materials**

L02-C03 **Portland clinker, Pozzuolanic, slag and waste product**

L02-C04 **Magnesium**
Includes magnesium compounds.

L02-C05 **Calcium sulphate**

L02-C06 **Complex for special purposes**

L02-C07 **Alumina (5% alumina)**
1972

L02-C08 **Cement additives**
1972

L02-C **Unclassified**

L02-D **MORTARS, CONCRETES**

L02-D01 **Mortars and plasters**
Including stuccos, grouts, trowellable mortars, mine filling compsns.

L02-D02 **Heavy concretes; apparatus for manufacture of concrete, mixers, shuttering, mould release agents, lubricants**

L02-D03 **Light concretes**
e.g. containing pore formers.

L02-D04 **Prefabricated concrete**
Concrete articles, pipes, blocks, autoclaving equipment.

L02-D04A . **Compositions**
1986

L02-D04B . **Methods**
1986

L02-D04C . **Apparatus**
1986

L02-D04D . **Products**
1986

L02-D05 **Reinforced and pre-stressed concretes and mortars**
Steel and glass fibre reinforced and pre-stressed concretes. From 2010 this code has been expanded to include reinforced and pre-stressed mortars.

L02-D06 **Concretes made with special fillers (based on Portland cement only)**

L02-D07 **Concretes and artificial stone (other than from Portland cement)**

L02-D07A . **Gypsum products**
Including plaster board, plaster modelling.
1977

L02-D07B . **Resin concretes**
1977

L02-D08 **Testing methods**

L02-D09 **Artificial floors and surfaces**
Road, paving, sporting surfaces and floors and their subgrades. Includes artificial roofing.

L02-D10 **Bitumastic compositions**
1972

L02-D11 **Asbestos and mineral fibre products**
1972

L02-D12 **Soil consolidation**

L02-D12A **. Cementing and sealing compositions for oil and gas wells**
See also H01-C02B.
2005

L02-D13 **Aggregates**
1972

L02-D13A **. Fillers**
e.g. fly ash etc.
1994

L02-D14 **Concrete additives and coatings**
Include additives for mortars.
1972

L02-D14A **. Concrete set accelerators, retarders, activators**
1986

L02-D14B **. Concrete strengthening additives**
1986

L02-D14C **. Frost resistance imparting additives**
1986

L02-D14D **. Water reducing additives (to reduce amount of water needed for making concrete)**
1986

L02-D14E **. Plasticising and fluidising additives**
1986

L02-D14F **. Polymeric additives**
1986

L02-D14G **. Corrosion inhibiting agents**
2012

L02-D14H **. Biological additives e.g. fungicides**
2012

L02-D14M **. Polymeric and organic coatings and impregnants for concrete**
1986

L02-D14N **. Inorganic coatings and impregnants for concrete**
1986

L02-D14P **. Decorative coatings and additives for concretes**
1986

L02-D14Q **. Water permeability retarding layers and additives**
1986

L02-D14R **. Paints**
1994

L02-D14S **. Antifoaming additive**
2011

L02-D15 **Sound and thermal insulation**
Including acoustic and thermal insulation based on inorganic materials, fire protecting panels.
1972

L02-D15A **. Fire resistance boards, blocks, blankets etc.**
Includes all products.
1986

L02-D15A1 **.. Fireproof materials**
2011

L02-D15B **. Thermal and acoustic insulating boards**
1986

L02-D15C **. Thermal and acoustic insulating flexible sheeting**
1986

L02-D15D **. Thermal and acoustic insulating material compositions**
1986

L02-D15E **. Other thermal and acoustic insulating products**
2011

L02-D **Unclassified**

L02-E **REFRACTORIES**
Acid refractories are considered as more acid than mullite or forsterite, basic refractories, more basic than mullite or forsterite. Neutral refractories include intermediate acidity materials such as Al2O3, ZrO2, carbides, nitrides, etc.

L02-E01 **General**

L02-E02 **Fireclay and diatomaceous**

L02-E03 **Acid**

L02-E04 **Basic**

L02-E05 **Mouldables, castables and coatings**

L02-E06 **Core materials**
Includes refractory hot tops, linings and blast furnace tap hole seals.

L02-E07 **Carbon and carbon-contg.**
Takes precedence over L02-E03 and L02-E04.

L02-E08 **Fused and cast**

L02-E09 **Amphoteric and neutral**

L02-E **Unclassified**

L02-F **ABRASIVES (INCLUDING FRICTION MATERIALS FOR CLUTCHES AND BRAKES)**
1994

L02-F01 **General (including binders)**
1994

L02-F02 **Rouges**
Including oxides other than L02-F04.

L02-F03 **Carbides, silicides, nitrides**
Including abrasive tools using these materials.

L02-F04 **Harsh oxides (Moh's hardness >6)**

L02-F05 **Carbon**

L02-F05A . **Diamond**
Including abrasive tools using diamond.
2002

L02-F05B . **Graphite**
2002

L02-F05C . **Carbon fibres**
2002

L02-F06 **Automotive uses**
2002

L02-F **Unclassified**

L02-G **OXIDE CERAMICS**

L02-G01 **Inorganic Oxides**
Includes materials and products made therefrom, e.g. catalyst supports, molecular sieves, filters, diaphragms and membranes. For preparation methods see L02-G12. Until 200601 code entitled "General".

L02-G01A . **Alumina**
Includes aluminates, aluminosilicates, zeolites. See L02-G11 for production.
2002

L02-G01B . **Silica**
2002

L02-G01B1 .. **Metal silicates**
2006

L02-G01C . **Rare earth oxides**
Until 200601, code entitled 'yttria' After 200601 this code is the general code representing 'rare earth oxides' whereas specific codes L02-G01C1 now represents 'yttria' and L02-G01C2 represents 'ceria'.
2002

L02-G01C1 .. **Yttria**
2006

L02-G01C2 .. **Ceria**
2006

L02-G01D . **Zirconia**
Includes zirconates.
2002

L02-G01E . **Titania**
Includes titanates.
2006

L02-G01F . **Zinc oxides**
2006

L02-G01M . **Mixed metal oxides**
Includes metallates.
2006

L02-G01M1 .. **Metal titanates**
2006

L02-G01X . **Other inorganic oxides**
2006

L02-G02 **Heavy clay products**

L02-G03 **Whiteware**

L02-G03A . **Porcelains**
Including dental porcelains.
1972

L02-G03A1 .. **Prostheses, hydroxyapatite, artificial bone**
2002

L02-G04 **Colours**

L02-G05 **Electrical insulators**
Including preparation of mica, mica sheet, insulators for power lines, ceramic substrates and ceramic encapsulating compositions.

L02-G06 **Thermal and acoustic insulators**
Including thermal insulating material prepared by firing a ceramic only. For all other thermal insulating material see L02-D15.

L02-G07 **Electronic ceramics, general**
Novel oxides for electrical purposes, prepn. methods of conventional oxides. Ferroelastic materials are coded with ferroelectric materials.

L02-G07A . **Magnetic compositions**
1972

L02-G07B . **Piezoelectrics**
1972

L02-G07C . **High permittivity compositions**
1972

L02-G07D . **Resistive oxide compositions, semiconductive oxide compositions**
See L03-B01A for zinc oxide based ceramic varistors.
1972

L02-G07E . **Conductive ceramics**
2002

L02-G08 **Wear resistant ceramics, lubricants**
Including friction materials and artificial and natural oxide gemstones.

L02-G09 **Nuclear ceramics**

L02-G10 **Ceramics for optical purposes, general**

L02-G10A **. Luminescent and fluorescent compositions** **1972**

L02-G10B **. Laser compositions** **2010**

L02-G11 **Alumina preparation (from raw materials)**
Includes production of aluminates, aluminosilicates, zeolites. **1972**

L02-G12 **Other oxide preparation**
For manufacture of materials and products made therefrom. See L02-G01 for claimed materials and products. L02-B01 (calcia), L02-B02 (magnesia), L02-G07 (conductive oxides), L02-G11 (alumina, aluminosilicates, zeolite) take preference. This code (and subcodes) have always been used for preparation of oxides. **1972**

L02-G12A **. Titania**
Includes titanates. **2006**

L02-G12B **. Zirconia**
Includes zirconates. **2006**

L02-G12C **. Zinc oxides** **2006**

L02-G12D **. Rare earth oxides** **2006**

L02-G12D1 **.. Yttria** **2006**

L02-G12D2 **.. Ceria** **2006**

L02-G12E **. Silica** **2006**

L02-G12E1 **.. Metal silicates** **2006**

L02-G12M **. Mixed metal oxides**
Includes metallates. **2006**

L02-G12M1 **.. Metal titanates** **2006**

L02-G12X **. Other inorganic oxides** **2006**

L02-G **Unclassified**
Including 'technical' ceramics.

L02-H **NON-OXIDE CERAMICS**

L02-H01 **General**

L02-H02 **Carbides, borides, nitrides, silicides, (general)**

L02-H02A **. Carbides** **1972**

L02-H02B **. Borides, nitrides, silicides** **1972**

L02-H02B1 **.. Borides** **1972**

L02-H02B2 **.. Nitrides** **1972**

L02-H02B3 **.. Silicides** **1972**

L02-H03 **Sulfides, phosphides (novel compositions only)**

L02-H04 **Carbon and graphite, general**
See also J04-F.

L02-H04A **. Carbon fibres** **1972**

L02-H04B **. Carbon nanostructures**
Including fullerenes and nanotubes. **2002**

L02-H05 **Arsenides, selenides, tellurides (novel compositions only)**

L02-H **Unclassified**
Including halides.

L02-J **CERAMIC COMPOSITES**

L02-J01 **Metal/ceramic composites**

L02-J01A **. Metallised ceramic**

L02-J01B **. Cermets**
Including cermet cutting tools.

L02-J01C **. Ceramic/metal seals**

L02-J01D **. Ceramic fibre reinforced metal**

L02-J01E **. Ceramic coating on metal**

L02-J02 **Non-metal/ceramic composites**

L02-J02A **. Ceramic/glass**

L02-J02B **. Ceramic/plastics**

L02-J02C **. Dissimilar ceramics**

L02-J03 **Powder coatings**
May be used with other L02-J codes, and see M13-H04A. **2006**

L02-J **Unclassified** **1972**

L02-K APPLICATIONS OF CERAMICS

L02-K01 Household use
2011

L02-K02 Medical/dental
2011

L02-K03 Industrial applications
2025

L02-K09 Other applications of ceramics
2025

L03 ELECTRO-(IN)ORGANIC

L03-A CONDUCTORS AND INSULATORS

L03-A01 Mainly metals and alloys

L03-A01A . Non-insulated (conducting alloys, contacts, conductive inks and pastes)

L03-A01A1 .. Silver (alloy) contacts and electrodes
For contacts or electrodes used in specific applications which cannot be catered for elsewhere.
1986

L03-A01A2 .. Other metal/alloy contacts and electrodes
For contacts or electrodes used in specific applications which cannot be catered for elsewhere.
1986

L03-A01A3 .. Conductive pastes including polymers filled with conductive metal
1986

L03-A01A4 .. Sliding contacts, pantographs etc.
1986

L03-A01A5 .. Conductive alloy compositions
1986

L03-A01A6 .. Nanomaterials
2010

L03-A01B . Conductors, metal, insulated

L03-A01B1 .. Cables
1986

L03-A01B2 .. Joining cables
1986

L03-A01B3 .. Insulated wire
1986

L03-A01B4 .. Insulating oils for cables
1986

L03-A01B5 .. Preparation of leads and terminals
1986

L03-A01B6 .. Soldering, brazing, welding, thermo-compression bonding
See L04-C17A for soldering of semiconductors and L03-H04E6 for soldering of printed circuits.
1986

L03-A01B7 .. Wire harness
2012

L03-A01C . Superconductors
1972

L03-A01C1 .. Metallic superconductors
2002

L03-A01C1A **... Nb superconductors**
2002

L03-A01C2 **.. Ceramic superconductors**
2002

L03-A01C2A **... Perovskite superconductors**
2002

L03-A01C2B **... YBCO superconductors**
2002

L03-A01C3 **.. Organic superconductors**
2002

L03-A01C4 **.. Nanomaterials**
Use this code in conjunction with other L03-A01C codes.
2013

L03-A02 **Non metal conductors**

L03-A02A **. Non-insulated non-metal conductors**

L03-A02B **. Carbon and graphite**
1986

L03-A02C **. Ion conductive solids**
1986

L03-A02C1 **.. Indium-tin oxide (ITO)**
2002

L03-A02D **. Conductive polymers**
1986

L03-A02E **. Polymers filled with non-metallic conductive materials**
1986

L03-A02G **. Conductive nanomaterials**
Includes nanotube, nanowire manufacture. See also L02-H04B for carbon nanostructures.
1986

L03-A03 **Insulators**
Including electrical insulating compositions not codable in L02-G05.
2002

L03-A03A **. Organic insulators**
2002

L03-A03B **. Inorganic insulators**
2002

L03-A03N **. Nanomaterials**
2011

L03-A **Unclassified**

L03-B **RESISTORS, MAGNETS, CAPACITORS, SWITCHES**

L03-B01 **Resistors, fixed or adjustable - general**

L03-B01A **. Variable resistors**
1972

L03-B01A1 **.. Varistors**
1986

L03-B01A2 **.. Thermistors (heat sensitive resistors)**
1986

L03-B01A3 **.. Humidity sensitive resistors**
1986

L03-B01A4 **.. Gas sensitive resistors**
1986

L03-B01B **. Fixed resistors**
1972

L03-B01C **. Thick film resistive compositions**
1972

L03-B02 **Magnets, inductances, transformers, etc., general**
For magnetic tape compsns. discs, lubricants, etc. see L03-B05 from 198601.

L03-B02A **. Magnetic metals, alloys**
1972

L03-B02A1 **.. Iron-based powder cores and powders**
1986

L03-B02A2 **.. Iron based alloys**
L03-B02A5 takes precedence.
1986

L03-B02A3 **.. Electric steels**
Including silicon steels.
1986

L03-B02A4 **.. Nickel and cobalt-based alloys**
L03-B02A5 takes precedence.
1986

L03-B02A5 **.. Rare earth nickel/cobalt/iron alloys**
1986

L03-B02A6 **.. Other alloys**
1986

L03-B02B **. Magnetic non-metals, general**
1972

L03-B02B1 **.. Barium ferrite based compsns.**
1986

L03-B02B2 **.. Other ferrites**
1986

L03-B02B3 **.. Garnets**
1986

L03-B02B4 **.. Magnetic polymers; plastics**
Includes organic magnetic materials.
2009

L03-B02B4A **... Magnetic polymer composite particles**
Excludes magnetic pigments for recording which is covered in L03-B05D1.
2009

L03-B02B5 **.. Magnetic liquid compositions**
2009

L03-B02B5A **... Ferrofluids; magnetic colloids**
2009

L03-B02B5B **... Magnetorheological fluids; magnetoviscous**
2009

L03-B02B6 **.. Other magnetic material compositions**
Excludes magnetic recording.
2009

L03-B02B6A **... Inorganic composite magnetic particles**
Excludes magnetic pigments for recording which is covered in L03-B05D1.
2009

L03-B02C **. Inductances**
Including insulating oils for inductors.
1972

L03-B02D **. Transformers**
Including insulating oils for transformers.
1972

L03-B02E **. Motors**
1986

L03-B02F **. Coils**
1986

L03-B02G **. Medical or pharmaceutical industry applications**
2009

L03-B02H **. Magnetic inks, paints, lacquers**
2009

L03-B02J **. Engineering; automotive applications**
2009

L03-B02M **. Magnetic memory**
See also L04-E15 for semiconductor memory.
2011

L03-B02N **. Nanomagnetic materials**
2012

L03-B02X **. Other applications of magnets or magnetic compositions**
Excludes magnetic recording which is covered in L03-B05.
2009

L03-B03 **Capacitors and capacitive devices - general**
Including electrets, condensers.

L03-B03A **. Electrolytic capacitors**
1972

L03-B03B **. Monolithic capacitors**
1972

L03-B03C **. Thick/thin film capacitive compositions**
1972

L03-B03D **. Other capacitors, fixed/variable**
1972

L03-B03E **. Inorganic dielectric compositions**
1986

L03-B03F **. Organic dielectric compositions**
1986

L03-B03G **. Capacitor electrodes**
2002

L03-B03G1 **.. Inorganic capacitor electrodes**
2007

L03-B03G2 **.. Metallic capacitor electrodes**
2011

L03-B03H **. Capacitor electrolytes**
2006

L03-B03J **. Multilayer capacitors**
2007

L03-B04 **Electric switches, relays, protective devices**
Including arc suppressing gases, commutators, surge arresters.

L03-B04A **. Switches**
1986

L03-B04B **. Relays and contact breakers**
1986

L03-B04C **. Commutators**
1986

L03-B04D **. Fuses**
1986

L03-B04E **. Lightning arresters and surge absorbers**
1986

L03-B05 **Magnetic recording**
Covered by L03-B02 prior to 198601.
1986

L03-B05A **. Magnetic tapes**
1986

L03-B05B **. Magnetic plates, discs**
1986

L03-B05C **. Other recording media**
1986

L03-B05D **. Magnetic layers, dispersions**
1986

L03-B05D1 **.. Magnetic pigments**
1986

L03-B05D2 **.. After treatment of magnetic pigments**
1986

L03-B05D3 **.. Non magnetic additives**
1986

L03-B05D4 **.. Binders for magnetic layers and dispersions**
1986

L03-B05E **. Magnetic layers, metal plating**
1986

L03-B05F **. Magneto-optical and thermo-magnetic layers**
1986

L03-B05G **. Magnetic layers for vertical recording**
1986

L03-B05H **. Magnetic layers for security documents etc.**
1986

L03-B05J **. Magnetic layers general and unspecified**
1986

L03-B05K **. Non-magnetic layers**
1986

L03-B05K1 **.. Protective**
1986

L03-B05K2 **.. Backing**
1986

L03-B05K3 **.. Lubricant**
1986

L03-B05L **. Supports for magnetic layers**
1986

L03-B05L1 **.. Polymeric**
1986

L03-B05L2 **.. Metal**
1986

L03-B05L3 **.. Coatings forming part of the support**
1986

L03-B05M **. Magnetic heads**
1986

L03-B05N **. Non-magnetic gap fillers for magnetic heads**
1986

L03-B05W **. Magnetic writer**
2012

L03-B06 **Magnetic cores**
Including bubbles and dots.
1986

L03-C ELECTRIC DISCHARGE LAMPS AND TUBES, INCANDESCENT LAMPS

L03-C01 **Non-emissive electrodes and materials therefor, getters**

L03-C02 **Emissive electrodes and materials for discharge tubes and lamps, general**

L03-C02A **. Electrodes**
Including photo-cathodes and target cathodes.
1972

L03-C02B **. Fluorescent compositions for TV screens**
1972

L03-C02C **. Luminescent compositions for tube surfaces**
Including fluorescers for diodes, etc.
1972

L03-C02D **. Vapour fillings and additives**
1972

L03-C03 **Electrode supports, mountings, envelopes, bases, common to valves and/or C.R. tubes, X-ray tubes, etc.**
Including designs for tubes and valves. Also vidicon tubes.

L03-C03A **. Electrode supports, seals and mountings**
Covers materials and methods of manufacture.
2005

L03-C03B **. CRT shadow masks**
Covers materials and manufacturing techniques e.g. etching.
2005

L03-C04 **Incandescent and luminescent screens, discharge tube envelopes, etc. – general**
Includes fluorescent and discharge lamps.

L03-C04A **. Incandescent and luminous screens**

L03-C04B **. Tubes manufacture**

L03-C05 **Electric incandescent lamps**

L03-C05A **. Seals and mountings**
Covers sealing and mounting materials and methods for incandescent lamps.
2005

L03-C05B **. Filaments and fillings**
Covers filament materials and filling gases for incandescent lamps.
2005

L03-C05C **. Lamp envelopes**
Covers envelope materials and manufacturing methods for incandescent lamps.
2005

L03-C06 **LED lamps**
2011

L03-C **Unclassified**
Including electron multiplier tubes dynodes, short arc fluorescent lamps.

L03-D **SEMICONDUCTOR, PIEZOELECTRIC, THERMOOPTIC, OPTO-ELECTRONIC MATERIALS AND DEVICES**
From 198601, the scope of L03-D02+, L03-D03+, L03-D04+ and L03-D05+ codes which terminated in 1985 are covered by L04+ codes. Scope of all remaining L03-D codes are now covered in L03-G from 200501.
1972-2004

L03-D01 **Materials, general**
Including pyroelectric materials.
1972-2004

L03-D01A **. Semiconductor materials**
1972-1985

L03-D01B **. Piezoelectric materials**
Scope now covered in L03-G09A.
1972-2004

L03-D01C **. Thermo-optic materials**
Scope now covered in L03-G09D.
1972-2004

L03-D01D **. Opto-electronic materials**
1972-2004

L03-D01D1 **.. Liquid crystal compounds**
Scope now covered in L03-G05B1.
1986-2004

L03-D01D2 **.. Liquid crystal material mixtures**
Scope now covered in L03-G05B2.
1986-2004

L03-D01D3 **.. Additives for liquid crystal materials**
Scope now covered in L03-G05B4.
1986-2004

L03-D01E **. Electro-rheological fluids**
Scope now covered in L03-G09F.
1994-2004

L03-D02 **Producing semiconductors, doping - general**
1970-1985

L03-D02A **. Single crystal growth**
Semiconducting materials only; does not include epitaxial layer production.
1972-1985

L03-D02B **. Zone refining**
1972-1985

L03-D02C **. Doping**
1972-1985

L03-D03 **Producing semiconductor devices using L03-D01 materials - general**
1972-1985

L03-D03A **. Doped layers on a substrate**
Including epitaxial layer production of single crystals.
1972-1985

L03-D03B **. Masking techniques**
1972-1985

L03-D03C **. Etching, slicing, and dicing**
1972-1985

L03-D03D **. Insulating and conductive layer production**
1972-1985

L03-D03E **. Production of complete devices**
Unspecified devices only, otherwise L03-D04:
1972-1985

L03-D03F **. Soldering, thermo-compression bonding**
Including soldering of any electronic component.
1972-1985

L03-D03G **. Encapsulation**
Including passivation and partial encapsulation.
1972-1985

L03-D03H **. Undoped layers on a substrate**
Including epitaxial layer production of single crystals.
1977-1985

L03-D04 **Devices - general**
Including Hall effect and Pockels cell devices and electro-optical devices. From 200501, Scope covered in L03-G10.
1972-2004

L03-D04A **. Transistors**
1972-1985

L03-D04B **. Diodes, rectifiers**
Including LEDs, light-emitting semiconductive devices and arrays.
1972-1985

L03-D04C **. Thyristors**
1972-1985

L03-D04D . **Electromechanical transducers**
Including mechano-electrical transducers (but see L03-H03 for speaker cones); also including ferro-elastic devices. Scope covered in L03-G10 from 200501.
1972-2004

L03-D04E . **Radiation sensitive devices**
Including thermo-piles, photoelectric cells.
1972-1985

L03-D04F . **Image converters**
Including image intensifiers. Scope covered in L03-G10.
1972-2004

L03-D04G . **Thermo-optical devices**
Including thermal printing heads Scope now covered in L03-G10B, C and D.
1972-2004

L03-D05 **Sealing devices in housings**
1970-1985

L03-D05A . **Materials for device housings - e.g. polymers for general electrical/electronic usage**
Including thermal printing heads.
1994-2004

L03-D **Unclassified**

L03-E **BATTERIES, ACCUMULATORS, THERMOELECTRIC ELEMENTS**

L03-E01 **Components of primary and secondary cells - general**
Components take precedence over cell type unless more than two components are claimed.

L03-E01A . **Separators**
1972

L03-E01B . **Electrodes**
1972

L03-E01B1 .. **Lead electrodes**
1977

L03-E01B2 .. **Air or oxygen electrodes**
1977

L03-E01B3 .. **Graphite electrodes**
1986

L03-E01B4 .. **Nickel and cadmium electrodes**
1986

L03-E01B4A ... **Ni electrodes for NiCd batteries**
2002

L03-E01B4B ... **Cd electrodes**
2002

L03-E01B4C ... **Ni MH electrodes**
Includes H2 storage alloys.
2002

L03-E01B5 .. **Alkali metal electrodes and unspecified electrodes for alkaline cells**
1986

L03-E01B5A ... **Manganese oxide electrodes**
Includes electrodes for alkaline manganese cells.
2002

L03-E01B5B ... **Lithium electrodes**
Include novel electrodes for lithium cells. For lithium manganate see L03-E01B5C.
2002

L03-E01B5C ... **Lithium manganate electrodes**
2002

L03-E01B5D ... **Sodium-sulfur electrodes**
2002

L03-E01B6 .. **Zinc and zinc oxide electrode**
1986

L03-E01B7 .. **Silver and silver oxide electrodes**
1986

L03-E01B8 .. **Other inorganic electrodes**
1986

L03-E01B8A ... **Other inorganic oxide electrodes**
2002

L03-E01B9 .. **Organic electrodes**
1986

L03-E01B9A ... **Polymer electrodes**
2002

L03-E01C . **Electrolytes**
1972

L03-E01C1 .. **Aqueous electrolytes**
2002

L03-E01C2 .. **Non-aqueous electrolytes**
2002

L03-E01C3 .. **Solid electrolytes**
2002

L03-E01C4 .. **Liquid electrolytes**
2002

L03-E01C5 .. **Molten/fused electrolytes**
2002

L03-E01D . **Other components**
1972

L03-E01D1 .. **Cases**
2002

L03-E01D2 .. **Terminals**
2002

L03-E01D3 .. **Seals**
2002

L03-E01D4 **.. Connectors**
See also X16-F05.
2011

L03-E01D5 **.. Carriers, plates**
Includes current collector, grid, support, charge and frame.
2011

L03-E01D6 **.. Battery packs**
2011

L03-E02 **Primary cells**

L03-E03 **Secondary cells**
e.g. accumulator, storage battery, storage cell, charge-discharge cycles.

L03-E04 **Fuel cells**

L03-E04A **. Solid electrolyte cells**
Including beta-Al2O3 for Na-S cells.

L03-E04A1 **.. Solid oxide electrolyte cells**
2002

L03-E04A2 **.. Solid polymer electrolyte cells**
2002

L03-E04B **. Fuel cell electrodes**
2002

L03-E04B1 **.. Catalyst electrodes**
See also J04-E04D.
2006

L03-E04B2 **.. Membrane electrodes**
2007

L03-E04C **. Molten carbonate fuel cells**
2002

L03-E04D **. Alkaline fuel cells**
2002

L03-E04E **. Phosphoric acid fuel cells**
2002

L03-E04F **. Hydrogen oxygen fuel cells**
2002

L03-E04G **. Fuel cell separators**
2002

L03-E04H **. Production of fuel cell and components**
Include assembling of fuel cells.
2005

L03-E04H1 **.. Production of fuel cell separators**
2006

L03-E04H2 **.. Production of fuel cell electrodes**
Includes preparation of electrode materials.
2006

L03-E04H3 **.. Production of other fuel cell components**
Includes electrolyte manufacture.
2005

L03-E04I **. Hydrogen generation**
2006

L03-E04J **. Hydrogen storage materials/facility**
2007

L03-E04K **. Biofuel cell**
2011

L03-E04L **. Flow field plate**
2011

L03-E04P **. Gas diffusion layers**
2012

L03-E05 **Other direct energy conversion devices**

L03-E05A **. Thermocouples**
1972

L03-E05B **. Solar cells**
1986

L03-E05B1 **.. Dye-sensitized solar cells**
2011

L03-E05B1A **... Dye material**
2011

L03-E05B2 **.. Electrode structure/materials**
2013

L03-E05C **. Gas sensors - i.e. those which are not gas-sensitive resistors**
1994

L03-E05D **. Hybrid cells**
2002

L03-E05D1 **.. Electrodes**
2002

L03-E05D2 **.. Metal-air hybrid cells**
2002

L03-E05D3 **.. Metal-halogen hybrid cells**
2002

L03-E06 **Reclamation and disposal**
See also relevant electrode code.
2002

L03-E07 **Testing batteries and fuel cells**
2002

L03-E08 **Production of battery and components**
See also relevant electrode code. Include apparatus for manufacturing battery and its components. Include assembling of batteries.
2006

L03-E08A **. Production of separators**
2006

L03-E08B **. Production of electrodes**
Include preparation of electrode materials.
2006

L03-E08C **. Production of other components**
E.g. cases, terminals and seals. Also includes electrolyte manufacture.
2006

L03-E09 **Recharging batteries**
E.g. processes or apparatus for recharging. Only if sufficient chemical interest. See also X16-G.
2006

L03-E10 **Repairing batteries**
2011

L03-E **Unclassified**

L03-F **STIMULATED RADIATION-EMISSION DEVICES**

L03-F01 **Masers**

L03-F02 **Lasers, general**

L03-F02A **. Compositions**
1972

L03-F02A1 **.. Gaseous laser compositions**
2002

L03-F02A2 **.. Solid laser compositions**
Includes YAG, Ruby.
2002

L03-F02A3 **.. Dye laser**
2011

L03-F02B **. Construction and design**
1972

L03-F **Unclassified**
1972

L03-G **OTHER BASIC ELECTR(ON)IC ELEMENTS AND MATERIALS**

L03-G01 **Delay lines**
1972

L03-G02 **Wave guides**
Includes optical fibre waveguides. Also include optical components which cannot be coded more specifically below.
1972

L03-G02A **. Polarisers**
2002

L03-G02B **. Optical filters**
2002

L03-G02C **. Attenuators**
2002

L03-G02D **. Components for optoelectronic circuits**
2002

L03-G02E **. Antireflective coating**
See L04-C05A for antireflective coating compositions used in semiconductor patterning.
2011

L03-G02F **. Optical switch**
2012

L03-G02G **. Reflectors**
2013

L03-G03 **Coulometers**
1972

L03-G04 **Optical memory and storage elements**
Covers optical discs and holographic media.
1972

L03-G04A **. Semiconductor memory elements**
Scope now covered by L04-E15.
1986-2004

L03-G04B **. Optical memory elements**
For magnetic and magneto-optical memory elements see L03-B05.
1986

L03-G04B1 **.. Dyes and pigments for recordable discs**
2005

L03-G04B2 **.. Alloy compositions for recordable discs**
For dynamic e.g. phase change optical disk memory using e.g. GeSbTe alloys. See also T03-B01B5G.
2005

L03-G04B3 **.. Substrates for optical discs**
2005

L03-G04B4 **.. Coatings for recordable discs**
2005

L03-G04B5 **.. Optical cards**
2011

L03-G04B9 **.. Materials for holographic applications**
2005

L03-G05 **Display devices**
Including arrays.
1972

L03-G05A **. Liquid crystal display devices**
But see L03-D01D for liquid crystal materials.
1986

L03-G05A1 **.. LCD panels**
2002

L03-G05A2 **.. Light valves**
2002

L03-G05A3 **.. Backlight units**
2010

L03-G05B **. Materials and components for LCDs display devices**
1986

L03-G05B1 **.. Novel liquid crystal compounds**
2005

L03-G05B2 **.. Liquid crystal compositions**
2005

L03-G05B3 **.. Dyes for liquid crystal compounds**
2005

L03-G05B4 **.. Aligning agents and other additives for LC compositions**
2005

L03-G05B5 **.. Substrates and spacers for LCDs**
2005

L03-G05B5A **... Sealant materials involving resins used in display materials**
2007

L03-G05B6 **.. Transistors for LCDs**
2005

L03-G05B7 **.. Filters and polarisers**
2005

L03-G05B7A **... Colour filters**
See L03-G02 for colour filters not used in LCDs.
2005

L03-G05B7B **... Polarisers**
2005

L03-G05B8 **.. Alignment layers**
2005

L03-G05B9 **.. Conductive films and other components for LCDs**
2005

L03-G05C **. Electrochromic display devices**
1986

L03-G05C1 **.. Electrochromic materials**
2005

L03-G05C2 **.. Other materials for electrochromic devices**
Includes e.g. polymer or ceramic sealants or glass layers.
2005

L03-G05D **. Field emission displays (FED)**
2002

L03-G05E **. Plasma displays (PDP)**
2002

L03-G05F **. Electroluminescent displays (EL) and devices**
2002

L03-G05F1 **.. Electroluminescent materials**
2005

L03-G05F2 **.. Other materials for EL devices**
Includes e.g. polymer or ceramic sealants or glass layers.
2005

L03-G05G **. Electrophoretic displays and materials**
2005

L03-G05H **. Magnetophoretic display**
2010

L03-G05I **. Capacitive touch panel**
2011

L03-G05J **. Electrowetting display**
2011

L03-G05K **. LED display**
2011

L03-G06 **Electromagnetic shielding**
2002

L03-G07 **Heat sinks**
2002

L03-G09 **Other electro(in)organic materials**
For materials used in specific applications not catered for elsewhere, e.g. GeSbTe for solid state phase change memory, in which case also apply L04-E15. See U14-A03H and U12-B02.
2005

L03-G09A **. Piezoelectric**
2005

L03-G09A1 **.. Inorganic**
Covers e.g. lead zirconium titanates (PZT) etc.
2005

L03-G09A2 **.. Organic**
Covers e.g. polyvinylidene fluoride (PVdF) etc.
2005

L03-G09B **. Ferroelectric and ferroelastic**
2005

L03-G09C **. Pyroelectric**
From 2010 thermoelectric material has been transferred to L03-G09T.
2005

L03-G09D **. Thermooptical**
2005

L03-G09E **. Other optoelectronic materials**
Includes other non-linear optical materials not covered above. From 2006 this code has been expanded to included all other optoelectronic materials including non-linear optical materials.
2005

L03-G09F **. Electrorheological**
2005

L03-G09G . **Fluorescent and luminescent materials for semiconductor manufacture**
Used in e.g. LEDs, lasers.
2007

L03-G09H . **Electrostrictive**
2010

L03-G09I . **Magnetostrictive**
2010

L03-G09J . **Photoelectric**
2010

L03-G09L . **Magnetoresistive**
2011

L03-G09M . **Thermomagnetic**
Excludes recording materials.
2011

L03-G09P . **Photoresist**
Excludes photoresist for PCB and semiconductor device manufacture. Includes resist for printer or LCD manufacture.
2010

L03-G09R . **Photochromic**
2011

L03-G09S . **Spintronic**
2012

L03-G09T . **Thermoelectric**
2010

L03-G09U . **Radiation sensitive materials**
For image recording.
2012

L03-G09V . **Other fluorescent/luminescent materials**
Includes fluorescent and luminescent materials used for devices other than semiconductor and discharge lamps/tubes. Also includes scintillator material compositions.
2012

L03-G09X . **Ink jet recording ink**
For ink jet recording methods.
2014

L03-G09Z . **Zero expansion materials**
2012

L03-G10 **Other electronic devices**
For specific devices not catered for elsewhere where the materials aspect is important.
2005

L03-G10A . **Piezoelectric transducers**
See also V06 codes for specific details. For MEMS see L03-G10M.
2005

L03-G10A1 .. **Inkjet heads**
2005

L03-G10A2 .. **Motors e.g. USM**
2005

L03-G10B . **Thermal inkjet printing heads**
2005

L03-G10C . **Thermal printing heads**
e.g. as used by dye sublimation printers.
2005

L03-G10D . **Other thermo-optical devices**
2005

L03-G10E . **Image converters and intensifiers**
2005

L03-G10F . **Electro-optical devices**
2011

L03-G10J . **Electrowetting devices**
2011

L03-G10M . **MEMS**
2011

L03-G10S . **Scintillator**
2011

L03-G10T . **Spintronic devices**
Includes spintronic-optical and spintronic-magnetic devices.
2012

L03-G **Unclassified**

L03-H **APPLICATIONS**

L03-H01 **Generation, conversion, distribution**
Including MHD generation, triboelectric devices.

L03-H02 **Basic electronic circuitry**
Including lead frames for semiconductor networks and hybrid devices.

L03-H03 **Electric communications techniques - general**
Including speaker cones.

L03-H03A . **Data storage units, computers**
1972

L03-H03B . **Bio- and neuro-computers**
1994

L03-H04 **Electrical general**

L03-H04A . **Electrical heating and lighting**
Including resistive and other space heaters, storage heaters.

L03-H04B . **Static/antistatic electricity**

L03-H04C . **X-ray techniques**
Including tube fluorescers, image intensifiers and electrodes.

L03-H04D **. Plasma techniques, particle accelerators**
Including magnetrons.

L03-H04E **. Printed circuits and racks - general**

L03-H04E1 **.. PCB substrate manufacture (plastics, resins, etc.)**
1972

L03-H04E2 **.. Patterning, including photoresists, application & removal, etching etc.**
1972

L03-H04E3 **.. Metallising, plating, vapour deposition, forming metal sheet and laminating etc**
1972

L03-H04E4 **.. Thick film circuits**
Including conductive pastes and inks for thick film circuit manufacture.
1972

L03-H04E5 **.. Ceramic substrates for PCB's**
Includes glass and enamels substrates or coatings on metals or ceramics.
1972

L03-H04E6 **.. Soldering. Including tinning of circuits, soldering components to circuits, soldering apparatus etc. Brazing**
1986

L03-H04E6A **... Adhesives/adhesive joining for PCBs**
2007

L03-H04E7 **.. Microwelding**
1986

L03-H04E8 **.. Encapsulation of PCB's**
Including plastics and glass encapsulation.
1986

L03-H04E9 **.. Other treatment of PCB's**
1986

L03-H05 **Vehicles**
Including sparking and resistive ignition plugs.

L03-H **Applications Unclassified**

L03-J **OTHER MANUFACTURE AND TREATMENT OF ELECTR(ON)IC COMPONENTS AND MATERIALS**

L03-J **General and unclassified**
1986

L03-J01 **Recycling of electrical and electronic materials and devices**
Used in combination with relevant device codes.
2005

L03-J02 **Materials for device housings and packaging**
Includes polymers e.g. for electrical device casings and for non-specific electrical uses and material used for packaging devices and apparatus for storage.
2005

L03-J03 **Flame retardant materials**
2011

L03-X **TESTING OF DEVICES**
Exclude testing of batteries and fuel cells (see L03-E07) and testing of semiconductor devices (see L04-C18B).

L03-X **General and unclassified**
2011

L04 SEMICONDUCTORS

For ceramic semiconductors see the appropriate ceramic composition and L03-A02 or L03-B01. See also L03-D+: codes prior to 198601.

L04 Semiconductors general

This code will be used where no reference is made to which semiconductor is under consideration and where no other L04 code is appropriate.

1986

L04-A **MATERIALS - GENERAL**
Including preparation of precursor materials.

L04-A **General**
Materials codes will be used to identify material used in semiconductor processing and devices, where given (except for silicon which is the normal semiconductor material). These codes will also be used for preparation of the semiconductor material from impure precursors, (including silicon).

1986

L04-A01 **Silicon**
From 2002 silicon is coded in L04-A01A. From 2002 L04-A01 has been re-defined as the general code for group IV semiconductors. More specific named examples of group IV semiconductors are coded from L04-A01A to L04-A01F.

1986-2001

L04-A01 **Group IV semiconductors**
Prior to 2002 L04-A01 was assigned for silicon.

2002

L04-A01A **. Silicon**

2002

L04-A01B **. Silicon carbide**

2002

L04-A01C **. Silicon-germanium**

2002

L04-A01D **. Diamond**

2002

L04-A01E **. Germanium**

2002

L04-A01F **. Other group IV semiconductors**

2002

L04-A02 **AIII-BV compounds- general**

1986

L04-A02A **. Gallium arsenide**
From 2002 gallium arsenide is coded in L04-A02A3A. From 2002 L04-A02A has been re-defined to cover binary AIII-BV compounds-general.

1986-2001

L04-A02A **. Binary AIII-BV compound semiconductors**
Prior to 2002 L04-A02A was assigned for gallium arsenide.

2002

L04-A02A1 **.. Nitrides**

2002

L04-A02A1A **... Gallium nitrides**

2002

L04-A02A1B **... Indium nitrides**

2002

L04-A02A1C **... Aluminium nitrides**

2002

L04-A02A2 **.. Phosphides**

2002

L04-A02A2A **... Gallium phosphides**

2002

L04-A02A2B **... Indium phosphides**

2002

L04-A02A2C **... Aluminium phosphides**

2002

L04-A02A3 **.. Arsenides**

2002

L04-A02A3A **... Gallium arsenides**

2002

L04-A02A3B **... Indium arsenides**

2002

L04-A02A3C **... Aluminium arsenides**

2002

L04-A02A4 **.. Antimonides**

2002

L04-A02A4A **... Gallium antimonides**

2002

L04-A02A4B **... Indium antimonides**

2002

L04-A02A4C **... Aluminium antimonides**

2002

L04-A02B **. Gallium phosphide**
From 2002 gallium phosphide is coded in L04-A02A2A. From 2002 L04-A02B has been re-defined to cover tertiary AIII-BV compound semiconductors.

1986-2001

L04-A02B **. Tertiary AIII-BV compound semiconductors**
Prior to 2002 L04-A02B was assigned for gallium phosphide.

2002

L04-A02B1 **.. Nitrides**
2002

L04-A02B2 **.. Phosphides**
2002

L04-A02B3 **.. Arsenides**
2002

L04-A02B4 **.. Antimonides**
2002

L04-A02C **. Indium antimonide, indium phosphide**
From 2002 indium antimonide and indium phosphide are coded in L04-A02A4B and L04-A02A2B respectively. From 2002 L04-A02C has been re-defined to cover quaternary AIII-BV compound semiconductors.
1986-2001

L04-A02C **. Quaternary AIII-BV compound semiconductors**
Prior to 2002 L04-A02C was assigned for indium antimonide or indium phosphide.
2002

L04-A02C1 **.. Nitrides**
2002

L04-A02C2 **.. Phosphides**
2002

L04-A02C3 **.. Arsenides**
2002

L04-A02C4 **.. Antimonides**
2002

L04-A02D **. Complex ternary and quaternary AIII-BV compounds**
From 2002 complex ternary and quaternary AIII-BV compounds are coded in L04-A02B and L04-A02C respectively. From 2002 L04-A02D has been re-defined to cover other AIII-BV compound semiconductors.
1986-2001

L04-A02D **. Other AIII-BV compound semiconductors**
Prior to 2002 L04-A02D was assigned for complex ternary and quaternary AIII-BV compounds.
2002

L04-A03 **AII-BVI cpds.- general**
1986

L04-A03A **. Mercury sulfide, cadmium sulfide, zinc sulfide**
1986

L04-A03B **. Mercury selenide, cadmium selenide, zinc selenide**
1986

L04-A03C **. Mercury telluride, cadmium telluride, zinc telluride**
2002

L04-A03D **. Zinc oxide**
2010

L04-A04 **Organic semiconductor materials**
1986

L04-A04A **. Dianhydride semiconductor materials**
2002

L04-A04B **. Cyanine semiconductor materials**
2002

L04-A04C **. Thiophene semiconductors**
2002

L04-A04D **. Other organic semiconductor materials**
2002

L04-A05 **Semiconductor nanomaterials**
Includes semiconductor quantum dots.
2010

L04-A06 **Chalcopyrites**
2011

L04-A07 **Copper indium sulphide**
2011

L04-A08 **Semiconductor precursor material compositions/preparation**
2012

L04-A99 **Other inorganic semiconductor materials**
2011

L04-B **MANUFACTURE OF SEMICONDUCTOR MONOCRYSTALS - GENERAL**

L04-B **General**
1986

L04-B01 **Single crystal growth by Czochralski, Bridgman and other methods**
1986

L04-B01A **. Methods**
2002

L04-B01B **. Seed crystals**
2002

L04-B01C **. Apparatus**
2002

L04-B02 **General purification**
1986

L04-B02A **. Zone refining**
2002

L04-B02B **. Gettering**
2002

L04-B03 **Doping**
1986

L04-B04 **Wafer production**
1986

L04-B04A **. Chemical-mechanical polishing**
Includes polishing pad or polishing apparatus.
2002

L04-B04B **. Slicing and dicing**
2002

L04-C **SEMICONDUCTOR PROCESSING - GENERAL**

L04-C **General**
1986

L04-C01 **Epitaxial growth of semiconductor layers**
1986

L04-C01A **. Vapour deposition**
1986

L04-C01B **. Chemical vapour deposition**
Including plasma CVD.
1986

L04-C01C **. Liquid epitaxial growth**
1986

L04-C01D **. Sputtering of semiconductor layers**
2002

L04-C02 **Doped layers and regions**
1986

L04-C02A **. Forming layers with simultaneous doping**
1986

L04-C02B **. Doping by ion injection**
1986

L04-C02C **. Doping by gaseous, liquid or solid contact**
1986

L04-C02D **. Doping by diffusion**
1986

L04-C02E **. Dopant materials**
2012

L04-C03 **Amorphous layers**
1986

L04-C04 **Polycrystalline layers**
1986

L04-C05 **Masking and resist materials**
1986

L04-C05A **. Antireflective coating compositions**
2011

L04-C06 **Patterning techniques general**
Including sequences of masking and etching steps.
1986

L04-C06A **. Mask design and manufacture**
1986

L04-C06A1 **.. Pellicle design/manufacturing**
2013

L04-C06B **. Resists**
1986

L04-C06B1 **.. Patterning of resists**
2002

L04-C06B2 **.. Stripping of resists**
Includes stripping compositions.
2002

L04-C06C **. Hole manufacture**
1986

L04-C06D **. Aligning masks and layers**
1986

L04-C07 **Etching processes general**
Includes etch stop layers.
1986

L04-C07A **. Ion beam etching**
1986

L04-C07B **. Vapour phase etching, dry etching**
1986

L04-C07C **. Liquid phase etching, etchants**
1986

L04-C07C1 **.. Chemical liquid phase etching**
2002

L04-C07C2 **.. Electrochemical liquid phase etching**
2002

L04-C07D **. Plasma etching**
1986

L04-C07E **. Groove formation, dicing**
1986

L04-C07F **. Mechanical etching**
2002

L04-C07G **. Photoetching**
2011

L04-C08 **Combinations of L04-C01 - L04-C07**
1986

L04-C09 **Washing, rinsing and drying processes**
To include cleaning.
1986

L04-C09A **. Washing and cleaning compositions**
2005

L04-C09B **. Methods**
2005

L04-C09C **. Apparatus**
2005

L04-C10 **Conductive layers - general**
Including films.
1986

L04-C10A **. Conductive tracks, circuits**
Includes words and bit lines.
1986

L04-C10A1 **.. Electrical fuses**
Used in CMOS compatible processes. For chip ID, serial number, feature selection, memory redundancy, On-Time-Programmable (OTP).
2007

L04-C10B **. Polycrystalline silicon layers**
1986

L04-C10C **. Aluminium alloys**
1986

L04-C10D **. Copper alloys**
1986

L04-C10E **. Precious metals (alloys)**
1986

L04-C10F **. Other compositions**
1986

L04-C10G **. Buried layers**
1986

L04-C10H **. Layer conversion especially to semiconductor or insulator**
1986

L04-C10J **. Tungsten**
2002

L04-C10K **. Titanium**
2002

L04-C10L **. Coating methods**
2011

L04-C10L1 **.. PVD, CVD and Sputtering methods**
2011

L04-C10L2 **.. Other coating methods**
Includes electroplating, electroless plating, spraying and sol-gel techniques.
2011

L04-C11 **Contacts, terminals, electrodes - general**
1986

L04-C11A **. Ohmic contacts/electrodes**
1986

L04-C11B **. Schottky contacts/electrodes**
1986

L04-C11C **. Electrodes**
1986

L04-C11C1 **.. Gate electrodes**
For gate insulating layers see L04-C12J.
2002

L04-C11C2 **.. Capacitor electrodes**
2002

L04-C11C3 **.. Source/drain**
2002

L04-C11D **. Terminals**
Include terminal posts.
1986

L04-C12 **Insulating and passivating layers - general**
1986

L04-C12A **. Oxide layers**
1986

L04-C12B **. Nitride layers**
1986

L04-C12C **. Isolating mesas, islands etc.**
1986

L04-C12C1 **.. Semiconductor on insulator (SOI)**
2006

L04-C12C2 **.. Trench isolation (e.g. STI)**
2006

L04-C12C3 **.. LOCOS**
2006

L04-C12D **. Glass layers**
1986

L04-C12E **. Plastics layers**
1986

L04-C12F **. Layer conversion, especially to semiconductor or conductor**
1986

L04-C12G **. Resistors**
2006

L04-C12H **. Coating methods**
2011

L04-C12H1 **.. PVD, CVD and Sputtering methods**
2011

L04-C12H2 **.. Other coating methods**
Includes electroplating, electroless plating, spraying and sol-gel techniques.
2011

L04-C12I **. Buried layers**
2012

L04-C12J **. Gate insulating layers**
2012

L04-C12K **. Other inorganic insulating layers**
Includes formation of carbide type insulating layers.
2013

L04-C13 **Multilayer systems**
i.e. multiple conductive layers with intermediate insulating layers.
1986

L04-C13A **. Forming through holes**
1986

L04-C13B **. Forming through hole connections**
1986

L04-C14 **Combinations of insulating and conductive film or layer formation**
1986

L04-C14A . **Capacitive elements**
i.e. for ROMs etc.
1994

L04-C15 **Many stage process sequences**
1986

L04-C16 **Heat treatment of semiconductors**
1986

L04-C16A . **Annealing**
2002

L04-C16B . **Laser annealing**
2005

L04-C17 **Bonding processes**
1986

L04-C17A . **Soldering techniques**
Including desoldering
1986

L04-C17B . **Thermocompression bonding**
1986

L04-C17C . **Welding - microwelding**
1986

L04-C17D . **General adhesive use**
1986

L04-C17D1 .. **Permanent bonding**
2002

L04-C17D2 .. **Temporary bonding (TAB)**
2002

L04-C18 **Testing of semiconductors and devices. Process monitoring and control**
1986

L04-C18A . **Process monitoring and control**
See also relevant L04-C and U11-C process codes and U11-F codes.
2005

L04-C18B . **Testing methods/apparatus**
Includes measuring during processing and defect repair. See also U11-F codes.
2005

L04-C19 **Marking of defective and other devices**
1986

L04-C20 **Encapsulation of semi-conductor device - general**
1986

L04-C20A . **Using resin**
1986

L04-C20B . **Using glass or other compsn.**
1986

L04-C20C . **Appts. for encapsulation - moulds, handling equipment**
1986

L04-C20D . **Encapsulating IC's chips with lead frames, assemblies**
1986

L04-C21 **Sealing devices into housings - using prefabricated resin or ceramic parts**
1986

L04-C22 **Substrate manufacture**
Include novel substrate and treatment of such substrates.
1986

L04-C23 **Lead frame manufacture**
Include novel lead frames, lead frame manufacture and treatment. For attaching lead frames to devices see L04-C24.
1986

L04-C24 **Attaching devices to lead frames**
1986

L04-C24A . **Attaching devices using TAB**
1994

L04-C25 **Heat sinks**
1986

L04-C26 **Other treatment processes not specified above**
Includes spacers.

L04-C27 **Planarising**
2002

L04-C28 **Phase change materials and layers**
2011

L04-C29 **Ashing**
2012

L04-C30 **Purification/gettering**
For single crystal/ingot purification and gettering see L04-B02 codes.
2012

L04-D **APPARATUS FOR SEMICONDUCTOR PROCESSING**

L04-D **General**
1986

L04-D01 **Vapour deposition apparatus**
1986

L04-D02 **Cathode sputtering apparatus**
1986

L04-D03 **Liquid phase deposition apparatus**
1986

L04-D04 **Ion or plasma bombardment apparatus**
1986

L04-D04A **. Plasma etching apparatus**
2007

L04-D04B **. Plasma bombardment apparatus for layer deposition**
2007

L04-D05 **Furnaces for heat treatment**
1986

L04-D06 **Diffusion apparatus**
1986

L04-D07 **Soldering apparatus**
1986

L04-D08 **Resist coating apparatus**
1986

L04-D09 **Furnace furniture**
i.e. boats, crucibles, wafer supports.
1986

L04-D10 **Ancillary equipment**
1986

L04-D11 **Other apparatus**
Includes cleaning and testing of manufacturing apparatus. Can be used with other L04-D codes as appropriate.
2010

L04-E **SEMICONDUCTOR DEVICES**

L04-E01 **Transistors - general**
1986

L04-E01A **. Field effect transistors (FET)**
Includes High electron mobility transistor (HEMT) and Fin transistor.
1986

L04-E01A1 **.. Junction field effect transistors (JFET)**
1986

L04-E01B **. Metal oxide semiconductor transistors (MOST)**
1986

L04-E01B1 **.. Metal oxide semiconductor field effect transistors (MOSFET)**
1986

L04-E01C **. Metal insulator semiconductor transistors (MIST, MISFET)**
1986

L04-E01D **. Bipolar transistors**
Includes N-P-N and P-N-P.
2002

L04-E01E **. Thin film transistors (TFT)**
Includes TFT switching elements for active matrix LCD devices.
2002

L04-E01F **. CHEMFET**
2005

L04-E01G **. Phototransistors**
2005

L04-E01H **. Lab-on-chip**
see also J04-B02, S03-H01 and U13-D04B codes.
2005

L04-E02 **Diodes, rectifiers**
1986

L04-E02A **. Photodiodes**
2005

L04-E03 **Light emitting devices**
LED except where diode is specifically mentioned.
1986

L04-E03A **. Light-emitting diodes**
Includes OLED.
1986

L04-E03B **. Semiconductor lasers**
1986

L04-E04 **Thyristors**
1986

L04-E05 **Light receiving and detecting devices**
1986

L04-E05A **. Image sensors**
1986

L04-E05B **. Photoconductors**
1986

L04-E05C **. Infrared detectors**
1986

L04-E05D **. Photovoltaic devices, photoelectric cells**
See L03-E05 for solar cells.
1986

L04-E05E **. Electrophotography**
1986

L04-E05F **. Charge coupled devices (CCD)**
1986

L04-E05G **. Photoresistors**
2005

L04-E05H **. UV detectors**
2013

L04-E06 **Integrated injection logic (IIL or I2L) devices**
1986

L04-E07 **Hall effect devices**
1986

L04-E08 **Semiconductor switches**
1986

L04-E09 **Superconductive devices (Josephson junction elements)**
1986

L04-E10 **Electromechanical sensors**
1994

L04-E11 **Memristor**
2012

L04-E15 **Semiconductor memories**
2005

L04-E **General and unclassified**
1986

L04-F **ASSEMBLIES OF SEMICONDUCTOR DEVICES TOGETHER AND/OR WITH OTHER DEVICES**

L04-F **General**
1986

L04-F01 **Assembling devices on a substrate**
1986

L04-F02 **Soldering devices together, on a substrate, or in a circuit**
1986

L04-F03 **Integrated circuit systems**
1986

L04-F04 **Integrated optical systems**
1986

L04-F05 **Sealing circuits into packages or housings**
Including single in-line and dual in-line systems.
1986

L04-F06 **Hybrid circuits**
1986

L04-X **ANCILIARY SEMICONDUCTOR MANUFACTURING PROCESS AND APPARATUS**

L04-X **Unclassified**
1986

L04-X01 **Ultrapure water production for semiconductor processes**
see also J01 codes for specific treatment methods and apparatus.
2005

L04-X02 **Processing of waste water from semiconductor manufacturing processes**
see also J01 codes for specific treatment methods and apparatus.
2005

L04-X03 **Processing of waste gases from semiconductor manufacturing processes**
see also J01 codes for specific treatment methods and apparatus.
2005

L04-X04 **Clean room apparatus and processes**
see also J01 codes for specific treatment methods and apparatus.
2006

L04-X05 **Semiconductor apparatus cleaning methods and compositions**
2011

L04-X06 **Recycling and repairing semiconductor devices**
Includes recycling of semiconductor wafer, materials and components. Also includes recycling of waste produced during semiconductor processing. For processing waste water, see L04-X02. For processing waste gases, see L04-X03.
2011

M: METALLURGY

M11 Electroplating, Electrolytic Treatment of or with Metals
M12 Chemical Cleaning, including Degreasing
M13 Non-electrolytic Coating
M14 Other Chemical Metal Surface, Surface Treatment
M21 Mechanical Working of Metal – without Metal Removal
M22 Casting, Powder Metallurgy
M23 Soldering, Welding
M24 Metallurgy of Iron and Steel
M25 Non-Ferrous Metal Production/Refining
M26 Non-Ferrous Alloys
M27 Ferrous Alloys
M28 Electrolytic/Electrothermic Production/Refining Metals
M29 Changing Physical structure Non-Ferrous Metal Alloys

M: METALLURGY

Furnaces are coded as to their use, e.g. melting furnaces for metal casting M22-G03G; heat treatment furnaces M24-D04, M29-C02; sintering furnaces M22-H03B or M24-A01, M25-A02; electric furnaces, if of a general type, M28-E.

In sub-sections M26 and M27, there is additionally provided a terminal code letter to indicate the important alloying material.

Non-electrolytic coatings are coded according to their method of production, and if not specified coded under a general code.

The code commenced at CPI 197001.

M11 ELECTROPLATING, ELECTROLYTIC TREATMENT OF OR WITH METALS

M11 has priority over M12 to 14: Thus M11-F covers boriding, chromating, etc. where these processes are electro-chemical in nature.

M11-A	**ELECTROLYTIC DEPOSITION OF METALS, ALLOYS**
M11-A	**General**
M11-A01	**Chromium**
M11-A02	**Nickel or cobalt**
M11-A03	**Copper**
M11-A04	**Zinc**
M11-A05	**Noble metals (Ru, Rh, Pd, Ag, Os, Ir, Pt, Au)**
M11-A06	**Iron**
M11-A06A	**. Iron** **1972-2011**
M11-A07	**Tin** **2002**
M11-A09	**Other specified metals** **2002**
M11-B	**SPECIAL PROCESSES, CHEMICAL ADDITIVES**
M11-B	**General**
M11-B01	**Brighteners and levelling agents**
M11-B02	**Multilayer deposition**
M11-B03	**After-treatment, thermal**
M11-B04	**Electroplating tubes, wire, etc.**
M11-B05	**Plating of difficult surfaces** E.g. non-conductors.
M11-B05A	**. For electrical components** E.g. printed circuits. **2006**
M11-B06	**Disposal/recovery used electrolytes/rinses** Includes apparatus.
M11-B07	**Control systems and servicing**
M11-B08	**Laboratory methods**
M11-B09	**Pretreatment of metallic substrates** **1972**
M11-B10	**Electrolytic compositions** **2002**
M11-B11	**Electrolytic coating containing embedded materials** Includes particulates, whiskers, composite materials. **2010**
M11-C	**APPARATUS FOR ELECTROPLATING**
M11-C	**General**
M11-C01	**Electrical aspects** Includes electrodes, power supplies, etc. **2002**
M11-C02	**Mechanical aspects** Includes baths, lifting mechanisms. **2002**
M11-D	**ELECTROFORMING**
M11-D	**General**
M11-E	**ANODISING OF METALS**
M11-E01	**Decorative, anticorrosive purposes**
M11-E02	**Electrical purposes** E.g. capacitor foil.
M11-E	**General**
M11-F	**ELECTROCHEMICAL FORMING NON-METALLIC LAYERS ON METALS**
M11-F	**General** Includes boriding, chromating, etc.
M11-G	**COATING METALS BY ELECTROPHORESIS**
M11-G	**General**
M11-G01	**Application of paint**

M11-H	**ELECTROLYTIC CLEANING, ETCHING AND POLISHING**
M11-H	**General** **1986**
M11-H01	**Electrolytic cleaning**
M11-H02	**Electrolytic polishing** Includes electrolytic etching.
M11-H03	**Electrochemical machinery, localised metal removal** Scope now covered in M23-D06. **1986-2002**
M11-H04	**Electrolytic etching** Scope now covered in M11-H02. **1986-2002**
M11-H05	**Apparatus** **1986**
M11-J	**CONTROL/TESTING** **1972**
M11-J	**General**
M11-J01	**Composition control** **2002**
M11-J02	**Control systems** **2002**
M11-J03	**Testing** **2002**

M12 CHEMICAL CLEANING, INCLUDING DEGREASING

M12-A	**CLEANING, PICKLING METAL**
M12-A	**General**
M12-A01	**Cleaning solutions/salt mixtures**
M12-A02	**Inhibitors for cleaning solutions/salts**
M12-A03	**Disposal/regeneration of used solution/salt mixtures**
M12-A04	**Apparatus**
M12-A05	**Processes** **1986**
M12-B	**OTHER CLEANING METHODS**
M12-B01	**Degreasing** Includes apparatus.
M12-B	**Unclassified** Includes apparatus.

M13 NON-ELECTROLYTIC COATING

M13-A **COATING FROM A LIQUID METAL BATH**

M13-A **General**

M13-A01 **Hot dipping**
2002

M13-A02 **Galvanising**
2002

M13-B **COATING FROM SOLUTION OR SUSPENSION OF METAL COMPOUNDS**

M13-B **General**
Includes electroless plating.

M13-C **METAL SPRAYING**

M13-C **General**

M13-C01 **Methods**
Including plasma spraying.
2002

M13-C02 **Apparatus**
Including torches, nozzles, etc.
2002

M13-D **CEMENTATION BY DIFFUSION PROCESS**

M13-D **General**
1972

M13-D01 **Using solids**

M13-D01A . **Carburising/nitriding**
1986

M13-D01B . **Others**
Including carbonitriding, boronising, chromising, aluminising.
1986

M13-D02 **Using liquids**

M13-D02A . **Carburising/nitriding**
1986

M13-D02B . **Others**
1986

M13-D03 **Using gases**

M13-D03A . **Carburising/nitriding**
1986

M13-D03B . **Others**
Including oxidising, chromising.
1986

M13-D04 **Post-treatment of coatings**
1986

M13-E **GAS PLATING BY DECOMPOSITION OR REDUCTION**

M13-E **General**

M13-E01 **To form metallic coatings**

M13-E02 **To form inorganic coatings**

M13-E03 **To form organic coatings**

M13-E04 **Pretreatment of substrates**
1986

M13-E05 **Process characterised by glow or arc discharge**
1986

M13-E06 **Process characterised by thermal decomposition or reduction of gases on heated surfaces**
1986

M13-E07 **Apparatus**
1986

M13-E08 **Post treatment of coatings**
1986

M13-F **FORMING COATINGS BY CONDENSATION FROM A VAPOUR**

M13-F **General**

M13-F01 **Pretreatment of substrates**
1986

M13-F02 **Coating on metallic substrates**
1986

M13-F03 **Coating on other substrates**
Including Si substrates.
1986

M13-F03A . **Coating on semiconductors**
2002

M13-F03B . **Coating on glass and ceramics**
2002

M13-F03C . **Coating on organic substrates**
Including polymers.
2002

M13-F04 **Post treatment of coatings**
1986

M13-F05 **Apparatus**
Includes substrate holders.
2002

M13-G **CATHODIC SPUTTERING**

M13-G **General**

M13-G01 **Cathodic sputtering pre-treatment**
1986

M13-G02 **Cathodic sputtering apparatus**
Including target materials.
1986

M13-G02A **. Targets**
Including materials and manufacture.
2002

M13-G02B **. Magnetrons (in sputtering apparatus)**
See also V05-C codes.
2007

M13-G03 **Sputtering on metallic surfaces**
2002

M13-G04 **Sputtering on non-metallic surfaces**
2002

M13-G05 **Post treatment of coatings**
2013

M13-H **OTHER COATING METHODS**

M13-H01 **Cladding**
Including weld deposition.
1972

M13-H02 **Sintering on**
1972

M13-H03 **Using adhesives**
1972

M13-H04 **Ceramic coatings, general**
1972

M13-H04A **. Powder coatings**
2006

M13-H05 **Plastics coating, general**
1972

M13-H05A **. Powder coatings**
2006

M13-H06 **Electrostatic coating, general**
1972

M13-H **General and unclassified**

M13-J **ENAMELLING AND VITREOUS COATING**

M13-J01 **Pre-treatment of surface**

M13-J02 **Enamelling/coating**

M13-J03 **After treatment**
Including de-enamelling.

M13-J **General and unclassified**
1972

M13-K **OIL-FREE LUBRICANT AND FRICTION COATINGS**

M13-K **General**

M13-K01 **Lubricant coatings**
Including Teflon® coatings.
2002

M13-K02 **Friction**
Including coatings for bearings.
2002

M13-L **CONTROL/TESTING**

M13-L **General**
1972

M13-M **PROTECTIVE LAYERS**

M13-M **General**
2002

M13-M01 **Thermal barrier coating**
2002

M13-M02 **Wear resistant**
Includes abrasion resistant coating.
2006

M13-M03 **Oxidation resistant**
2012

M14 OTHER CHEMICAL METAL SURFACE TREATMENT

M14-A	**ETCHING**
M14-A	**General**
M14-A01	**Mechanical processes** **1986**
M14-A02	**Chemical processes** **1986**
M14-A03	**Etching media** Including aqueous and gaseous compositions. **1986**
M14-A04	**Laser or ion beam processes** **1994**
M14-B	**BRIGHTENING**
M14-B	**General**
M14-C	**COLOURED LAYERS**
M14-C	**General** For anodising of metals see M11-E01 instead.
M14-D	**NON-METALLIC LAYERS BY SURFACE REACTION**
M14-D	**General**
M14-D01	**Oxide layers**
M14-D02	**Phosphate layers**
M14-D03	**Chromate layers** **1972**
M14-E	**ANODIC PROTECTION**
M14-E	**General**
M14-F	**CORROSION INHIBITORS**
M14-F	**General**
M14-F01	**Organic**
M14-F02	**Inorganic**
M14-G	**CATHODIC PROTECTION**
M14-G	**General**
M14-G01	**Impressed EMF** **2002**
M14-G02	**Passive systems** includes sacrificial anodes. **2002**
M14-H	**MULTISTAGE CHEMICAL/PHYSICAL PROCESSES**
M14-H	**General**
M14-J	**CORROSION TESTING, CONTROL, ETC.**
M14-J	**General** **1972**
M14-K	**CORROSION PROTECTION**
M14-K	**General** Includes plastic wrapping. **1972**

M21 MECHANICAL WORKING OF METAL - WITHOUT METAL REMOVAL

M21-A **ROLLING METAL STOCK**

M21-A **General**

M21-A01 **Rolling mills and methods, general and unclassified**

M21-A01A **. Hot rolling**
2002

M21-A01B **. Cold rolling**
2002

M21-A02 **Rolling mill stands, components**
Including gears, bearings, etc.

M21-A02A **. Rolls**
Including production of composite rolls, treatments such as grinding, polishing, heat, blooming.
1986

M21-A02A1 **.. Cleaning rolls**
Includes servicing.
2011

M21-A03 **Tube and pipe mills**

M21-A03A **. Strip, bar and wire (rod) mills**
1986

M21-A03B **. Sheet, band and plate mills**
1986

M21-A04 **Feeding devices for mills**

M21-A05 **Coilers, take-offs and cooling beds**

M21-A05A **. Descaling**
2002

M21-A06 **Rolling lubricants**

M21-A07 **Control mechanisms and processes**
Including speed, tension, width, thickness, etc.
1986

M21-B **PRODUCTION OF METAL SHEET, WIRE ROD, TUBE OR PROFILE OTHER THAN BY ROLLING**

M21-B **General**

M21-B01 **Metal drawing**

M21-B01A **. Processes**
1986

M21-B01B **. Equipment**
Including dies, holders, mandrels, tools, etc.
1986

M21-B02 **Metal extrusion**

M21-B02A **. Processes**
1986

M21-B02B **. Auxiliary processes**
Including feeding and take off, heating of tools and containers, etc.
1986

M21-B02C **. Equipment**
1986

M21-B02D **. Control devices, regulating devices etc.**
1986

M21-B03 **Metal working lubricants**

M21-B04 **Tube bending, expanding etc.**
1972

M21-C **PRODUCTION OF SEAMED, FINNED OR RIBBED TUBE**

M21-C **General**

M21-D **HIGH ENERGY RATE FORMING**

M21-D **General**
Includes explosive forming.

M21-E **WORKING SHEET METAL**

M21-E **General**

M21-E01 **Bending, corrugating, flanging, straightening**

M21-E02 **Punching, stamping and pressing**

M21-E03 **Deep drawing, spinning, stretch forming**

M21-E04 **Making sheet metal structures**
1972

M21-F **WORKING WIRE**

M21-F **General**

M21-G **PRODUCTION OF PINS, NEEDLES, NAILS, FASTENERS**

M21-G **General**

M21-H **MAKING SPECIFIC ROLLED PRODUCTS**

M21-H **General**

M21-H01 **Making sheet metal structures**
Of specified cross-section e.g. H-beam, I-beam.
2002

M21-J **FORGING, HAMMERING, PRESSING, RIVETING**

M21-J **General**

M21-J01 **Processes**
1986

M21-J02	**Equipment** Including hammers, forging presses. **1986**
M21-J03	**Control devices** **1986**
M21-K	**MAKING SPECIFIC FORGED OR PRESSED PRODUCTS**
M21-K	**General**
M21-L	**CHAIN MAKING**
M21-L	**General**
M21-M	**CONTROL, TESTING**
M21-M	**General** See M21-A01 for specific rolling method.
M21-N	**ANCILLARY EQUIPMENT**
M21-N01	**Feed and take-off equipment** **1972**
M21-N02	**Manipulators** **1972**
M21-N03	**Safety devices** **1972**
M21-N04	**Furnaces, cooling beds** **1972**
M21-N05	**Cutting** Including methods. **2002**
M21-N	**General and unclassified** **1972**

M22 CASTING, POWDER METALLURGY

M22-A	**FOUNDRY MOULDING**
M22-A	**General**
M22-A01	**Mould or core composition**
M22-A02	**Inorganic binders**
M22-A03	**Organic binders**
M22-A04	**Surface coating mould release compositions**
M22-B	**MOULD MATERIAL HANDLING/DRESSING**
M22-B	**General**
M22-B01	**Mixing, grinding, kneading**
M22-B02	**Sieving, separating, reclaiming**
M22-B03	**Cooling or drying**
M22-C	**PATTERNS**
M22-C	**General**
M22-C01	**Lost patterns**
M22-C02	**Plates and core boxes**
M22-D	**MOULD/CORE DESIGN/PRODUCTION**
M22-D	**General**
M22-E	**MACHINES FOR MOULD/CORE MAKING**
M22-E	**General** Used in place of M22-F.
M22-F	**MOULDING MACHINES**
M22-F	**General** See also M22-E.
M22-G	**METAL CASTING**
M22-G	**General**
M22-G01	**Casting pigs for remelting, etc.**
M22-G02	**Casting ingots for subsequent rolling, forging**
M22-G02A	**. Ingot casting methods**
M22-G02B	**. Ingot moulds, hot tops and linings**
M22-G03	**Casting machines and processes**
M22-G03A	**. Continuous and line casting**
M22-G03A1	**.. Moulds** **1977**

M22-G03A1A **... Roll**
2002

M22-G03A1B **... Endless belt**
2002

M22-G03A2 **.. Withdrawal equipment**
1977

M22-G03A3 **.. Cooling**
1977

M22-G03A4 **.. Tundish**
2002

M22-G03B **. Centrifugal**

M22-G03C **. Chill**

M22-G03C1 **.. Using moulds or cores with high thermal conductivity**
1986

M22-G03D **. Die casting machines and processes**

M22-G03D1 **.. Methods**
2002

M22-G03D2 **.. Apparatus**
2002

M22-G03E **. Vacuum casting machines and processes**

M22-G03F **. Other casting methods**

M22-G03G **. Ladles, casting furnaces and equipment**

M22-G03G1 **.. Nozzles, stoppers**
1977

M22-G03G2 **.. Linings**
Includes repair.
1977

M22-G03G2A **... Sacrificial**
2002

M22-G03G2B **... Permanent**
2002

M22-G03G3 **.. Dies, moulds etc. (other than for foundry casting)**
1986

M22-G03G4 **.. Treatment of metal in the mould while it is molten or ductile (by shaking, vibrating, using magnetic or electric fields etc.)**
1986

M22-G03G5 **.. Mould furniture**
Includes dams, weirs, etc.
2002

M22-G03G6 **.. Filters**
2002

M22-G03G7 **.. Mold cleaning apparatus and process**
2011

M22-G03G8 **.. Apparatus for handling molds**
2011

M22-G03H **. Fettling and post-treatment of castings**
See M24-D02 and M29-C for thermal treatment.

M22-G03J **. Control/testing of casting**
1977

M22-G03K **. Making specific cast products**
1977

M22-G03K1 **.. Turbine components**
2002

M22-G03K1A **... Aerospace**
2002

M22-G03K1B **... Power generation**
2002

M22-G03K2 **.. Internal combustion engine components**
Includes blocks, cylinder heads and bores.
2002

M22-G03L **. Directional solidification**
2002

M22-G03L1 **.. Single crystals**
2002

M22-G03M **. Rapid solidification processes (RSPs)**
2002

M22-G03M1 **.. Metallic glasses**
2002

M22-G03N **. Investment casting**
2002

M22-H **POWDER METALLURGY**

M22-H **General**

M22-H01 **Metal/alloy powders, granulates, fibres production**
Includes production of suspensions when details of the metal powder production are given.

M22-H02 **Powder treatment prior to use**

M22-H03 **Sintered articles, coating manufacture**

M22-H03A **. Compacting**

M22-H03B **. Sintering**

M22-H03C **. Compacting and sintering**

M22-H03D **. Fibre reinforcement**

M22-H03E **. Post treatment/impregnation**

M22-H03F **. Composite layers, materials**

M22-H03F1 **.. Metal matrix composites (MMCs)**
2002

M22-H03F2	**.. Ceramic matrix composites (CMCs)** 2002
M22-H03G	**. Powder metal products** 1972

M23 SOLDERING, WELDING

M23-A	**SOLDERING, BRAZING**
M23-A	**General**
M23-A01	**Metal compositions**
M23-A02	**Flux**
M23-A03	**Apparatus**
M23-A04	**Methods** 1986
M23-A06	**Testing, control operations and equipment** 2011
M23-B	**FLAME WELDING**
M23-B	**General**
M23-B01	**Torches, burners, gas supply**
M23-B02	**Machines and methods**
M23-C	**FLAME CUTTING AND SCARFING**
M23-C	**General**
M23-D	**ELECTRIC WELDING AND CUTTING**
M23-D	**General**
M23-D01	**Arc welding/cutting, plasma arc**
M23-D01A	**. Methods** 1972
M23-D01A1	**.. Seam welding** 1986
M23-D01A2	**.. Build up welding** 1986
M23-D01A3	**.. Submerged arc welding** 1986
M23-D01A4	**.. Specially adapted for particular articles** 1986
M23-D01A5	**.. Arc butt welding** 2011
M23-D01A6	**.. Stud welding** 2012
M23-D01B	**. Apparatus and circuits** 1972
M23-D01B1	**.. Torches, nozzles, holders** 1977
M23-D01B2	**.. Flux, gas, wire feed** 1977
M23-D01B3	**.. Circuits** 1986
M23-D01B4	**.. General apparatus** 1986

M23-D01C **. Arc welding types**
2002

M23-D01C1 **.. Tungsten inert gas (TIG)**
E.g. Gas tungsten-inert gas (GTAW), tungsten arc gas shield (TAGS).
2002

M23-D01C2 **.. Metal inert gas (MIG)**
E.g. Metal arc gas shield (MAGS).
2002

M23-D01C3 **.. Manual metallic arc (MMA)**
2002

M23-D01C4 **.. Plasma**
2002

M23-D02 **Resistance welding**

M23-D02A **. Methods**
1972

M23-D02A1 **.. Butt welding**
1986

M23-D02A2 **.. Seam welding**
1986

M23-D02A3 **.. Spot welding**
1986

M23-D02A4 **.. Other processes**
1986

M23-D02A5 **.. Specially adapted for particular work**
1986

M23-D02B **. Apparatus and circuits**
1972

M23-D02B1 **.. Circuits**
1986

M23-D02B2 **.. General apparatus**
1986

M23-D03 **Induction heating**

M23-D04 **Electron beam**

M23-D05 **Laser beam**

M23-D06 **Spark erosion**

M23-D07 **Electroslag welding**
1972

M23-E **OTHER WELDING AND CUTTING PROCESSES**

M23-E01 **Forge or friction welding**
1994

M23-E02 **Alumino-thermic and explosive welding**

M23-E03 **Hard facing, general**
1972

M23-E04 **Ultrasonic welding**
2011

M23-E **Unclassified and general**

M23-F **WELDING RODS, ELECTRODES AND FLUXES**

M23-F **General**

M23-G **INSPECTION AND CONTROL METHODS**

M23-G **General**

M23-H **ANCILLARY EQUIPMENT**

M23-H **General**
Includes equipment for cleaning welding devices

M23-J **SPECIAL WELDING FEATURES**
1972

M23-J **General**

M23-K **SPECIALLY PROFILED EDGE PORTIONS OF WORKPIECES FOR MAKING SOLDERING OR WELDING CONNECTIONS**
2012

M23-K **General**

M24 METALLURGY OF IRON AND STEEL

M24-A	**MANUFACTURE OF IRON AND STEEL**
M24-A01	**Treatment of iron ores and materials**
M24-A01A	**. Roasting, briquetting and sintering** **1986**
M24-A01B	**. Treatment of cokes** Including coke ovens **1986**
M24-A02	**Blast furnace pig manufacture**
M24-A02A	**. By applying additives (fluxing agents etc.)** **1986**
M24-A02B	**. Making slags of special composition** **1986**
M24-A02C	**. General** **1986**
M24-A03	**Sponge iron or liquid steel production**
M24-A04	**Metallothermic processes**
M24-A05	**Apparatus for iron/steel production**
M24-A05A	**. Linings** **1986**
M24-A05B	**. Cooling devices** **1986**
M24-A05C	**. Discharge devices** **1986**
M24-A05D	**. Tuyeres** **1986**
M24-A05E	**. Stoves for heating blast** **1986**
M24-A05E1	**.. Preheating, cooling or drying hot blast** **1986**
M24-A05F	**. Charging devices** **2012**
M24-A06	**Analysis, control and laboratory methods for refining**
M24-A07	**Scrap and slag treatment** **1972**
M24-A07A	**. Working up flue dust and scrap** **1986**
M24-A07B	**. Working up slag** **1986**
M24-A07C	**. Working up waste water, slurry and sludge** **2011**
M24-A	**Other processes**
M24-B	**PROCESSING IRON AND STEEL**
M24-B01	**Processing iron, (to produce)**
M24-B01A	**. Pig iron**
M24-B01B	**. Cast iron**
M24-B01C	**. Wrought iron**
M24-B02	**Processing steels, (by)**
M24-B02A	**. Crucible process**
M24-B02B	**. Hearth process**
M24-B02C	**. Converter process**
M24-B02D	**. Electro process**
M24-B02E	**. Specified but unclassified**
M24-C	**TREATMENT OF IRON AND STEEL MELTS**
M24-C01	**Dephosphorising; desulphurising**
M24-C02	**Killing**
M24-C03	**Balancing**
M24-C04	**Removing other impurities**
M24-C05	**Inoculation and spheroidising** Including nodulizing treatment of molten iron.
M24-C06	**Decarburising** **1986**
M24-C07	**Use of slags or fluxes as treating agents** **1986**
M24-C08	**Alloying of ferrous melts** **1986**
M24-C09	**Apparatus for treatment of melts** Including lances, nozzles, stirrers, etc. **1986**
M24-C10	**Degassing** **2012**
M24-C	**General**
M24-D	**CHANGING PHYSICAL PROPERTIES IRON STEEL**
M24-D	**General**
M24-D01	**Mechanical working**
M24-D01A	**. Hot working**
M24-D01A1	**.. Rolling** **2006**
M24-D01B	**. Cold working**
M24-D01B1	**.. Rolling** **2006**

M24-D01C **Mechanical alloying**
2002

M24-D02 **Heat treatment, general**

M24-D02A **. Hardening treatments**
E.g. tempering, surface hardening.
1986

M24-D02B **. Annealing**
Including normalising, stress relieving, etc.
1986

M24-D02C **. Using heat treatment baths**
i.e. salt baths, oil baths, metal baths and fluidised beds.
1986

M24-D02D **. Multistage processes**
1986

M24-D03 **Heat treatment of specific articles**

M24-D04 **Heat treatment apparatus**

M24-D04A **. Furnaces for ingots**
e.g. soaking pits.
1986

M24-D04B **. Furnaces for treating strip, wire or sheet**
1986

M24-D04C **. Furnaces, coilers**
1986

M24-D04D **. Other furnaces**
1986

M24-D04E **. Quenching baths**
1986

M24-D04F **. Multistage processes**
1986

M24-D05 **Removal of non-metals by diffusion**

M24-D06 **Special physical methods**
E.g. peening.
1972

M24-D07 **Process control or regulation for heat treatment**
1986

M24-E **CONTROL/TESTING METHODS**

M24-E **General**

M24-F **IMPROVING SPECIFIED MECHANICAL PROPERTIES**

M24-F **General**
2002

M24-F01 **Creep resistance**
2002

M24-F02 **Fatigue resistance**
2002

M24-F03 **Tensile strength**
2002

M24-F04 **Fracture toughness (crack resistance)**
2002

M24-F05 **Stress corrosion cracking resistance**
2002

M24-F06 **Ductility**
2002

M24-F07 **Yield strength**
2013

M25 NON-FERROUS METAL PRODUCTION/REFINING

M25-A	**GENERAL ORE TREATMENT**
M25-A01	**Concentration**
M25-A01A	**. By dry methods** 1986
M25-A01B	**. By wet methods** Including flotation. 1986
M25-A02	**Crushing, roasting, briquetting, sintering**
M25-A	**Other processes**
M25-B	**WET EXTRACTION OF METALS AND METAL COMPOUNDS**
M25-B	**General**
M25-B01	**Precipitation as an insoluble compound** E.g. hydrolysis. 1986
M25-B02	**Reduction with hydrogen or metal causing metal precipitation from solution** 1986
M25-B02A	**. Using metal chlorides** E.g. for Ti production. 2002
M25-B03	**Ion exchange** Including absorption on resin. 1986
M25-B04	**Solvent extraction** i.e. complexing by organic reagents. 1986
M25-C	**DRY REDUCTION TO METAL**
M25-C	**General**
M25-C01	**Apparatus** 1972
M25-C02	**Methods** 1972
M25-D	**REDUCTION OF METAL CARBONYLS**
M25-D	**General**
M25-E	**WORKING UP SCRAP, FLUE DUST OR SLAG**
M25-E	**General**
M25-E01	**Working up of waste water, waste slurry or sludge** 1986
M25-E02	**Working up scrap, flue dust or slag** 2002
M25-F	**REFINING BY OTHER METHODS**
M25-F	**General**
M25-F01	**Vacuum refining** 2005
M25-F02	**Bioremediation using microorganisms** 2005
M25-F03	**Phytoremediation and phytomining** 2005
M25-F04	**Low gravity and zero gravity processing** 2005
M25-G	**OBTAINING SPECIFIC METALS**
M25-G	**General**
M25-G01	**Aluminium**
M25-G02	**Antimony**
M25-G03	**Arsenic**
M25-G04	**Alkali metal**
M25-G05	**Alkaline earth metal**
M25-G06	**Beryllium**
M25-G07	**Bismuth**
M25-G08	**Copper**
M25-G09	**Cadmium**
M25-G10	**Chromium**
M25-G11	**Cobalt**
M25-G12	**Germanium**
M25-G13	**Indium**
M25-G14	**Lead**
M25-G15	**Mercury**
M25-G16	**Magnesium**
M25-G17	**Manganese**
M25-G18	**Molybdenum**
M25-G19	**Nickel**
M25-G20	**Noble metals** Excluding Ag - see M25-G22.
M25-G21	**Rare earths**
M25-G22	**Silver**
M25-G23	**Tin**
M25-G24	**Titanium**
M25-G25	**Uranium**

M25-G26	**Vanadium**
M25-G27	**Zinc**
M25-G28	**Other metals**
M25-H	**ANALYSIS, CONTROL AND LABORATORY METHODS**
M25-H	**General**
M25-J	**APPARATUS FOR NON-FERROUS METAL PRODUCTION** **1972**
M25-J	**General**
M25-X	**OTHER NON-FERROUS METAL PROCESSING**
M25-X	**General and unclassified** **1986**

M26 NON-FERROUS ALLOYS

The following terminal code letters may be used to indicate important alloying elements: A = Al, Sb, As; B = Ba, Bi, Be, B; C = C, Cu, Cd, Cr, Co, Ca; H = H, Hf; J = In, Fe; L = Li, Pb; M = Hg, Mg, Mn, Mo; N = N, Ni, noble metals, Nb; O = O; P = K, P; R = Rare earth metals; S = Si, Na, S; T = Ta, Sn, Th, Ti, W; U = U; V = V; Z = Zn, Zr; X = other specified elements.

M26-A	**ALLOY PRODUCTION AND TREATMENT**
M26-A01	**By melting**
M26-A02	**By pressing or sintering** Includes casting.
M26-A03	**Removing material from alloys to produce different alloys**
M26-A04	**Mechanical alloying** **2002**
M26-A	**By other methods**
M26-B	**ALLOYS BASED ON PARTICULAR METALS**
M26-B01	**Noble metal**
M26-B02	**Mercury** E.g. amalgams.
M26-B03	**Copper**
M26-B04	**Lead**
M26-B05	**Tin**
M26-B06	**Titanium or zirconium**
M26-B07	**Zinc or cadmium**
M26-B08	**Nickel or cobalt**
M26-B09	**Aluminium**
M26-B10	**Magnesium**
M26-B11	**Beryllium**
M26-B12	**Hard alloys based on carbides, nitrides, borides, silicides, etc.**
M26-B13	**Based on other high melting or refractory metals**
M26-B14	**Lithium** **2002**
M26-B15	**Gallium** **2002**
M26-B16	**Rare earth metals** **2002**
M26-B17	**Alkali(ne) metals** For magnesium and lithium alloys, see M26-B10 and M26-B14 respectively. **2011**

M26-B18	**Manganese**	**2011**
M26-B	**General and others**	
M26-C	**SPECIAL ALLOYS**	
M26-C01	**Amorphous alloys, glassy**	**2002**
M26-C02	**Nanophase alloys (nanocrystalline)**	**2002**
M26-C03	**Shape memory**	**2002**
M26-C04	**Single crystalline alloy**	**2013**

M27 FERROUS ALLOYS

Used in preference to codes in the M24 section when a specific iron alloy or steel is concerned. The following terminal code letters may be used to indicate important alloying elements: A = Al, Sb, As; B = Ba, Bi, Be, B; C = Cu, Cd, Cr, Co, Ca; J = In, Fe; L = Pb; M = Hg, Mg, Mn, Mo; N = Ni, noble metals, Nb; P = K, P; S = Si, Na, S; T = Ta, Sn, Ti, W; U = U; V = V; Z = Zn, Zr; X = other specified elements.

M27-A	**ALLOYS**	
M27-A01	**Production**	
M27-A02	**Master alloys**	
M27-A03	**Cast iron alloys** >2 wt. % C.	
M27-A04	**Steel alloys**	
M27-A	**Other alloys**	
M27-B	**TREATMENT**	
M27-B01	**Production**	**1970-2009**
M27-B02	**Master alloys**	
M27-B03	**Cast iron alloys**	
M27-B04	**Steel alloys**	
M27-B	**Other alloys**	
M27-C	**CARBON STEEL** For C contents above 2 wt.%, see M27-A3	
M27-C01	**Ultra-low C content (<0.03 wt. %)**	**2002**
M27-C02	**Low C content (0.03-0.3 wt.%)**	**2002**
M27-C03	**Medium C content (0.3-0.7 wt.%)**	**2002**
M27-C04	**High C content (0.7-1.7 wt.%)**	**2002**
M27-C05	**Very high C content (>1.7 wt.%)**	**2012**
M27-D	**SPECIAL ALLOYS**	
M27-D01	**Stainless steels**	**2002**
M27-D02	**Mechanically alloyed**	**2002**
M27-D03	**Nanophase alloys**	**2012**
M27-D04	**Amorphous alloys**	**2011**
M27-D05	**Shape memory alloys**	**2011**

M28 ELECTROLYTIC/ ELECTROTHERMIC PRODUCTION/ REFINING METALS

M28-A **METALS, ALLOYS BY SOLUTION ELECTROLYSIS**

M28-A **General**
Including Hall-Heroult process for Al production.

M28-B **METALS, ALLOYS BY FUSED ELECTROLYTE ELECTROLYSIS**

M28-B **General**

M28-C **ELECTROLYTIC CELL PRODUCTION**

M28-C **General**

M28-C01 **Electrodes**
1986

M28-C02 **Operating and servicing**
1986

M28-C03 **Construction and assembly of cells**
1986

M28-D **METAL POWDER OR POROUS METAL BY ELECTROLYSIS**

M28-D **General**

M28-E **ELECTROTHERMIC TREATMENT ORES, METALS, ALLOYS**

M28-E **General**

M28-F **OTHER ELECTRICAL METAL REFINING PROCESSES**

M28-F **General and unclassified**

M29 CHANGING PHYSICAL STRUCTURE NON-FERROUS METALS ALLOYS

M29-A **MECHANICAL WORKING, HOT**

M29-A **General**

M29-B **MECHANICAL WORKING, COLD**

M29-B **General**

M29-C **HEAT TREATMENT**

M29-C **General**

M29-C01 **Of specific articles**
1972

M29-C02 **Apparatus**
1972

M29-D **SPECIAL PHYSICAL METHODS**

M29-D **General**

M29-E **OTHER NON-FERROUS METAL TREATMENT AND TESTING**

M29-E **General and unclassified (including testing non-ferrous alloys)**
1994

M29-F **IMPROVING SPECIFIED MECHANICAL PROPERTIES**

M29-F **General**
2002

M29-F01 **Creep resistance**
2002

M29-F02 **Fatigue resistance**
2002

M29-F03 **Tensile strength**
2002

M29-F04 **Fracture toughness (crack resistance)**
2002

M29-F05 **Stress corrosion cracking resistance**
2002

M29-F06 **Ductility**
2002

M29-F07 **Yield strength**
2013

N: CATALYSTS

N01 Alkali(ne) Earth Metal, B, Al, Si: Element, (Hydr)oxide, Inorganic Salt, Carboxylate

N02 Fe, Co, Ni, Cu, Noble Metal: Element, (Hydr)oxide, Inorganic Salt, Carboxylate

N03 Other Metal, As: Element, (Hydr)oxide, Inorganic Salt, Carboxylate

N04 C, N, O, P, S, Se, Te, Halogen: Element, Inorganic Compound

N05 Metal Hydride, Co-ordination Complex, Organic Compound excluding Carboxylate

N06 Molecular Sieve, Zeolite, Special Form, General

N07 Catalyst Applications and Uses

N: CATALYSTS

Any catalysts mentioned in an abstract in Section B, C, D, E, H, J, K, L, M are coded in Section N according to their chemical composition; while absorbents, non-catalytic reactants and unspecified 'acidic' or 'basic' catalysts are not coded though these latter may receive a general (N06) code. If catalysts (as chemical compounds) are claimed, they are also coded in Section E unless they are metallic elements or polymers.

Note

1. Catalysts or supports are coded in both sections E and N if they are novel, and from 199401 they also receive the code N06-F. Those supports which are not novel but form a significant part of the invention code N06-F only, commencing 199401.
2. The term carboxylate also includes the monothio or dithio compound.
3. The terms alkoxide and aryl oxide also include the thio compounds.
4. When a specific code is searched, the corresponding generic code(s) (used for general disclosures which would otherwise require several specific codes) must also be searched for complete coverage.

Section N codes commenced at 197701.

N01 ALKALI(NE EARTH) METAL, B, Al, Si: ELEMENT, (HYDR)OXIDE, INORGANIC SALT, CARBOXYLATE

N01 **GENERAL**

N01-A **Alkali metal - general**

N01-A01 **. Na or K**

N01-B **Alkaline earth metal**

N01-C **Aluminium - general**

N01-C01 **. Alumina-silica mixture**
Excluding zeolite.
1977-1993
Now coded as: N01-C01A,N01-C01B

N01-C01A **.. Alumina-silica mixture, aluminosilicates, clays**
May contain alkali(ne) earth metals only.
1994
Previous code(s): N01-C01

N01-C01B **.. Aluminosilicates containing/exchanged/loaded with section N02, N03 metals**
Where appropriate, the section N02+, N03 metal code(s) are also assigned.
1994
Previous code(s): N01-C01

N01-C02 **. Alumina**
Excluding N01-C01A, N01-C01B.
1977

N01-C03 **. Aluminum and other aluminum compounds**
Not zeolites, aluminosilicates or alumina.
2002

N01-D **B or Si**
Excluding N01-C01.
1977-1993
Now coded as: N01-D01,N01-D02, N01-D03

N01-D01 **. Boron compounds**
Boron, boron compounds (including non-zeolite borosilicates).
1994
Previous code(s): N01-D

N01-D02 **. Silica, silicates**
Excluding B and Al.
1994
Previous code(s): N01-D

N01-D03 **. Silicon and other silicon compounds**
1994
Previous code(s): N01-D

N02 Fe, Co, Ni, Cu, NOBLE METAL: ELEMENT, (HYDR)OXIDE, INORGANIC SALT, CARBOXYLATE

N02 **GENERAL**

N02-A **Iron - general**

N02-A01 **. Element or oxide**

N02-B **Cobalt - general**

N02-B01 **. Element or oxide**

N02-C **Nickel - general**

N02-C01 **. Element**

N02-D **Copper - general**

N02-D01 **. Element, oxide or sulfide**

N02-E **Ru, Rh, Os, Ir, Ag, Au - general**

N02-E01 **. Ru**
1994
Previous code(s): N02-E

N02-E02 **. Rh**
1994
Previous code(s): N02-E

N02-E03 **. Ag**
1994
Previous code(s): N02-E

N02-E04 **. Os, Ir, Au**
1994
Previous code(s): N02-E

N02-F **Pd or Pt - general**

N02-F01 **. Element on carbon**

N02-F02 **. Element**
Excluding N02-F01.

N02-F03 **. Palladium inorganic compound**
(not complexed)
2006

N02-F04 **. Palladium Carboxylate**
2006

N02-F05 **. Platinum inorganic compound**
(not complexed)
2006

N02-F06 **. Platinum Carboxylate**
2006

N03 OTHER METAL, AS: ELEMENT, (HYDR)OXIDE, INORGANIC SALT, CARBOXYLATE

N03 **GENERAL**

N03-A **Sc, Y, Lanthanoid, Fr, Ra, Actinoid**

N03-A01 **. Sc, Y, La** **2006**
Previous code(s): N03-A

N03-A02 **. Lanthanides – general** **2006**
Previous code(s): N03-A

N03-A02A **.. Ce** **2006**
Previous code(s): N03-A

N03-A02B **.. Other Lanthanides** **2006**
Previous code(s): N03-A

N03-A03 **. Ra, Th, Actinoid, Fr** **2006**
Previous code(s): N03-A

N03-B **Ti, Zr, Hf - general**

N03-B01 **. Ti** **1994**
Previous code(s): N03-B

N03-B01A **.. Ti – Element, (hydr)oxide including titanic acids** **2006**
Previous codes(s): N03-B01

N03-B02 **. Zr, Hf** **1994**
Previous code(s): N03-B

N03-C **V, Nb, Ta, W - general**

N03-C01 **. V** **1994**
Previous code(s): N03-C

N03-C02 **. W** **1994**
Previous code(s): N03-C

N03-C03 **. Nb, Ta** **1994**
Previous code(s): N03-C

N03-D **Cr, Mo - general**

N03-D01 **. Cr** **1994**
Previous code(s): N03-D

N03-D02 **. Mo** **1994**
Previous code(s): N03-D

N03-E **Mn, Tc, Re**

N03-F **Zn, Cd, Hg**

N03-F01 **. Zn** **2006**
Previous code(s): N03-F

N03-F02 **. Cd, Hg** **2006**
Previous code(s): N03-F

N03-G **Ga, In, Tl, Ge, Sn, Pb**

N03-G01 **. In** **2006**
Previous code(s): N03-G

N03-G02 **. Ge** **2006**
Previous code(s): N03-G

N03-G03 **. Sn** **2006**
Previous code(s): N03-G

N03-G04 **. Ga, Tl, Pb** **2006**
Previous code(s): N03-G

N03-H **As, Sb, Bi, Po**

N04 C, N, O, P, S, Se, Te, HALOGEN: ELEMENT, INORGANIC COMPOUND

N04	**GENERAL**
N04-A	**C (excluding N02-F01), N, O, H2O, H2O2, Se, Te, noble gas**
N04-B	**P**
N04-C	**S**
N04-D	**Halogen - general**
N04-D01	**. Metal halide**

N05 METAL HYDRIDE, CO-ORDINATION COMPLEX, ORGANIC COMPOUND EXCLUDING CARBOXYLATE

N05	**GENERAL**
N05-A	**H, metal hydride; metal-alkoxide, -aryl-oxide, -alkyl, -aryl**
N05-B	**Carbonyl complex, pi-bond complex**
N05-C	**Other co-ordination complex**
N05-D	**Amine, quaternary ammonium, heterocyclic and other organic N containing compounds** From 2011, this code has been expanded to include all organic N compounds.
N05-E	**Other organic compound - general**
N05-E01	**. B, Si, P, As, Se, Te, metal present** **1986**
N05-E02	**. S present** **1986**
N05-E03	**. Other compound** **1986**
N05-E03A	**.. Organic resins and other polymers** **2010**
N05-E04	**. Biocatalyst** Biocatalysts, natural catalysts. **2019**
N05-F	**Crown ethers** Crown ethers used as catalyst. **2016**

N06 MOLECULAR SIEVE, ZEOLITE, SPECIAL FORM, GENERAL

N06 **GENERAL**

N06-A **Molecular sieve; zeolite containing Al with no other metal than alkali(ne earth)**

N06-B **Other zeolite, general**

N06-B01 **. Boro- or metallo-aluminosilicates**
1994
Previous code(s): N06-B

N06-B02 **. High silica zeolites**
e.g. Silicalites.
1994
Previous code(s): N06-B

N06-B03 **. Phosphate or silicophosphate based molecular sieves**
Includes aluminosilicophosphates.
2002

N06-C **Special catalyst form - unclassified**
e.g. Raney Nickel.

N06-C01 **. Raney catalysts, alloys**
e.g. Raney Ni.
2002

N06-C02 **. Catalytic (coated) electrodes**
2002

N06-C03 **. Catalytic membranes, diaphragms**
2002

N06-C04 **. Homogenous, soluble or liquid phase catalysts**
2002

N06-C05 **. Fixed bed catalysts**
2002

N06-C06 **. Moving, fluidised bed catalysts (attrition resistant)**
2002

N06-C07 **. Nets, meshes, gauzes, frameworks**
Honeycomb catalysts.
2002

N06-C08 **. Bodies or particles with special shape or form**
2002

N06-C09 **. Nanocatalyst**
2010

N06-C10 **. Photocatalysts**
Materials which induce photocatalytic reaction.
2022

N06-C11 **. MOF catalyst**
Metal Organic Framework type compounds used as catalyst.
2023

N06-C12 **. Heterogenous catalyst**
2024

N06-C13 **. Heteropolyacid catalyst**
2024

N06-D **Catalytic apparatus, testing, detection, determination**

N06-E **Catalyst preparation, recovery, regeneration - gen**
Includes catalyst poisoning resistants or suppressors.

N06-E01 **. Catalyst preparation, activation, pretreatment**
2002

N06-E02 **. Catalyst regeneration, reactivation**
2002

N06-E03 **. Catalyst recovery (metals, values, ligands)**
2002

N06-F **Catalyst support**
Indicates that a feature of the catalyst support (e.g. composition/preparation/properties) forms a significant aspect of the invention. As well as the code N06-F, novel catalyst supports also receive appropriate codes from sections E and N, whereas non-novel catalyst supports code N06-F only.
1994

N06-G **Catalyst promoter**
Includes catalyst accelerator.
2010

N06-H **Phase transfer catalyst**
2011

N07 Catalyst Applications and Uses

1. Used in addition to the N01-N06 codes for process patents
2. Can be used without N01-N06 codes, when catalytic process is defined, but catalyst is unspecific e.g. "acid catalyst".
3. Codes N07-A to N07-K relate to Catalytic Reactions whereas code N07-L relate to Other Catalytic Applications and Uses.

N07 **GENERAL, UNCLASSIFIED, NO SPECIFIC REACTION REPORTED**
2002

N07-A **Catalytic reactions, General**
2002

N07-B **Hydrogenation, hydrogenesis, reduction**
2002

N07-B01 **. Hydrogenation of unsaturated C-C bonds**
2006

N07-B02 **. Hydrogenation other**
2006

N07-C **Oxidation, dehydrogenation - general or unclassified**
2002

N07-C01 **. Oxidation with O2, air**
2002

N07-C02 **. Dehydrogenation of C-C bonds**
2006

N07-C03 **. Other oxidation, dehydrogenation process**
2006

N07-D **Addition/substitution reactions - general or unclassified**
2002

N07-D01 **. Oligomerisation, telomerisation**
2002

N07-D01A **.. Dimerisation**
2022

N07-D02 **. Addition reactions of CO and/or CO2: general or unclassified**
2002

N07-D02A **.. Addition of CO to olefinic bonds: oxo reaction, hydroformylation, etc.**
2002

N07-D02B **.. Other addition reactions of CO(2)**
2002

N07-D03 **. Alkylation, arylation, acylation of C- Atoms**
2002

N07-D04 **. Condensation reactions; other C-C chain extension**
2002

N07-D05 **. Hydration, hydroxylation**
2002

N07-D06 **. Etherification, acetalisation, O-alkylation**
2002

N07-D07 **. Esterification, O-acylation, anhydride formation**
2002

N07-D08 **. Addition of nitrogenous functions - general or unclassified**
2002

N07-D08A **.. Amination, N-alkylation, N-acylation**
2002

N07-D08B **.. Ammonoxidation (ammonia-oxidation) of organics (oxidn. of NH3, see N07-J, inorganic reactions)**
2006

N07-D08C **.. Nitration**
2006

N07-D08D **.. Amidine or guanidine formation**
Reactions involving formation of amidine or guanidine group which may be cyclic or acyclic.
2016

N07-D08E **.. Other specific nitrogenous function formations**
Formation of azo or azide and other specific nitrogenous functions not covered under N07-D08A to N07-D08D.
2022

N07-D09 **. (Hydro)halogenation**
2002

N07-D10 **. Addition of sulfur functions, e.g. sulfonation**
2002

N07-D11 **. Addition of boron, silicon, phosphorus and other functions**
2010

N07-D11A **.. Addition of boron functions**
2010

N07-D11B **.. Addition of silicon functions**
2010

N07-D11C **.. Addition of phosphorus functions**
2010

N07-D11D **.. Addition of other functions**
2010

N07-E **Isomerisation and exchange reactions - general or unclassified**
2002

N07-E01 **. Isomerisation, metathesis, disproportionation of olefinic compounds**
2002

N07-E02 **. Isomerisation reactions of other hydrocarbons; reforming**
2002

N07-E03 **. Transesterification, ether/acetal exchange**
2002

N07-E04 **. Racemisation**
2002

N07-E05 **. Rearrangement reactions**
Any rearrangement reaction which gives a non-isomeric product e.g. Beckmann rearrangement.
2016

N07-E06 **. Asymmetric/enantioselective synthesis**
Catalytic reactions in which single reactants forms unequal mixture of stereoisomers or any one of specific isomer product.
2016

N07-F **Elimination/cleavage reactions - general or unclassified**
2002

N07-F01 **. Decarboxylation, decarbonylation**
2002

N07-F02 **. Dealkylation, cracking, depolymerisation, other C-C bond**
2002

N07-F03 **. De(hydro)halogenation**
2002

N07-F04 **. Ring expansion, contraction cleavage**
2002

N07-F05 **. Chain expansion/contraction**
2006

N07-F06 **. Hydrolysis, dehydration, dehydroxylation**
2010

N07-F06A **.. Hydrolysis**
2010

N07-F06B **.. Dehydration, dehydroxylation**
2010

N07-F06C **.. Dealkoxylation**
Removal of alkoxy groups.
2024

N07-F07 **. Cyclisation**
2006

N07-F07A **.. Carbocyclic cyclisation**
Formation of carbocyclic rings.
2021

N07-F07B **.. Heterocyclic cyclisation**
Formation of heterocyclic rings.
2021

N07-F08 **. Decyclisation**
2006

N07-F09 **. Elimination/cleavage of N functions**
2010

N07-F11 **. Desulfurization**
Applied where desulfurization takes place within the molecule to give a new product.
2014

N07-G **Electrocatalytic reactions**
2002

N07-H **Co-ordination complex, organometallic complex, and salt formation reaction**
Includes salts of organic ammonium compounds and salts of alcohols and counterions.
2014

N07-J **Catalyst use in the production of inorganics**
2002

N07-K **Other chemical reactions**
2002

N07-K01 **. Catalyst for green chemistry**
Catalyst used in an environmentally-friendly process or in degradation of pollutants.
2010

N07-L **Other catalyst applications and uses - unclassified**
2002

N07-L01 **. Purification/waste disposal processes - unclassified**
2002

N07-L01A **.. Catalytic combustion/oxidation of waste**
2002

N07-L01B **.. Water purification; wastewater treatment**
2002

N07-L01B1 **... Industrial effluent treatment**
Mechanism and process used to treat waters that have been contaminated by industrial or commercial activity.
2011

N07-L01C **.. Gas purification; waste gas treatment**
2002

N07-L01C1 **... Engine exhaust treatment**
2002

N07-L01D **.. Purification, (hydro)treatment of non-gaseous hydrocarbons**
2002

N07-L01E **.. Purification of other substances**
2002

N07-L02 **. Removal/treatment of impurities/compounds - general**
2002

N07-L02A **.. Removal/treatment of halogen (compounds)**
2002

N07-L02B **.. Removal/treatment of sulfur (compounds)**
2002

N07-L02C **.. Removal/treatment of nitrogen (compounds)**
2002

N07-L02D **.. Removal/treatment of carbon (compounds)**
2002

N07-L02E **.. Removal/treatment of metal (compounds)**
2002

N07-L02F **.. Removal/treatment of other impurities/compounds**
2002

N07-L03 **. Other processes/uses; general**
2002

N07-L03A **.. Batteries, fuels cells**
2002

N07-L03B **.. Detection processes**
Detection process where catalyst is used as part of detecting agent.
2010

N07-L03C **.. Catalyst used in resolution**
Catalytic process in which mixture of optical isomer is separated into D- and L form.
2022

APPENDICES

Appendix 1 – NANOTECHNOLOGY

This appendix is designed as a quick reference guide for all manual codes across the chemistry, life sciences and engineering technologies that relate to Nanotech industries.

For full details please look up the relevant code in the applicable manual. Classes A-N are covered by the CPI manual and section P-X by the EPI manual.

Note – Items in italics are of nanotech interest but may contain details not applicable to nanotech.

FULLERENES		
	containing heteroatoms	E05-U01
	carbon only	E05-U02
		L02-H04B
	electroconductivity agent for polymers	A08-M09A1
	thermal conductivity agent for polymers	A08-M09C1
GRAPHENE		
	carbon nanofilm	E05-U05C
	electroconductivity agent for polymers	*A08-M09A1*
	thermal conductivity agent for polymers	*A08-M09C1*
NANOBUDS		
	carbon only	E05-U05D
	inorganic	E31-U04
NANOCATALYSTS		N06-C09
NANOCRYSTALS (NON-FERROUS ALLOYS)		M26-C02
NANOELECTROMECHANICAL DEVICE/SYSTEM		
	actuators	V06-M06G9
	control	V06-N22A
	electronic switching	U21-B01T
	generators	V06-M06G8A
	medical devices	S05-Y02
	motors	V06-M06G9
	control	V06-N22A
	relays	V03-D10A
	resonators	V06-V01E
		V06-V01K2
	semiconductor device	U12-B03F2A
	semiconductor structure	U12-B03F2
	semiconductor structure, manufacture	U11-C18C
	semiconductor system	U12-B03F2B
	sensors	S03-H02B
		V06-V01K2
		V06-V04G
	switches	V03-C10A
	manufacture, testing and monitoring	V03-C07A
	DNA switches	B11-C12
		C11-C12
	transducers(audio)	V06-V01K2
		V06-V04A
NANOELECTRONIC DEVICE/SYSTEM		
	cathodes	
	image display	V05-D05C5A
	field emission device	V05-B05A5C
	general	V05-M03A1
	X-ray tube	V05-E01C7A
	semiconductor structure, manufacture	U11-C13
		U12-E01B2
	logic circuit	U21-C01T
	sensors	S03-H02B

NANOEMULSIONS		B12-M11Q2 C12-M11Q2
NANOFIBERS		
	carbon nanofibers	E05-U05B
NANOFILMS		E31-U03 B05-U05B C05-U05B
NANOFILTERS		J01-C04
NANOHORNS		B05-U05A C05-U05A E05-U05D E31-U04
NANOIMPRINTED MAGNETIC RECORD CARRIER		T03-A01G3
	manufacture	T03-A02G3
NANOIMPRINT LITHOGRAPHY		U11-C04J
NANOMATERIALS		
	battery electrode	X16-E01H1
	ceramics/cement	L02-A14
	conductive	L03-A02G X12-D01D
	electrolytes	X16-J01E
	fuel cell electrode	X16-E06A1A
	fuel cell storage	X16-C15C3A
	general use	V04-X01B1
	insulating	L03-A03N
	insulating, inorganic	X12-E01D
	insulating, organic	X12-E02D
	magnetic	L03-B02N V02-A10
	magnetic, manufacture	V02-A10C
	magnetic, novel	V02-A10A
	production	J04-F02
	semiconductive	L04-A05
	structures	U11-A14 U11-C13
	superconductive	L03-A01C4
	superconducting wires	X12-D07E
NANOMORPHOLOGY (COLOR CHEMISTRY)		
	pigment	E27-B01A
	dye	E27-B02A
	other color chemistry	E27-B03A
NANOPARTICLES		B12-M11Q1 C12-M11Q1
	carbon nanoparticles	E05-U05A
	inorganic	E31-U01
NANOPARTICULATE PRODUCTION		*V05-F08G*
NANOPHASE ALLOYS		
	ferrous	M27-D03
	non-ferrous	M26-C02
NANORELAYS		U12-B03F2A V03-D10A
	manufacture	V03-D06B1
NANORODS		B05-U05A C05-U05A
	carbon nanorods	E05-U05B
	inorganic	E31-U02
NANOSPHERES		
	inorganic	E31-U01

NANOSTRUCTURES		
	electrically-conductive (general)	X12-D02C2D
	electrically-insulating (general)	X12-E03D
	production	J04-F02
	magnetic film	V02-B04
	manufacture	V02-H02G
	inorganic	B05-U06
		C05-U06
		E31-U
	organic	E05-U
	pharmaceutical (other)	B05-U05C
		C05-U05
	dye or pigment bound to nanostructure	E24-U
NANOSUSPENSIONS		B12-M11Q3
		C12-M11Q3
NANOTECHNOLOGY		
	pharma applications (general)	B11-C12
		C11-C12
	polymers application (general)	A12-W14
NANOTECHNOLOGY DEVICES (THERAPEUTIC)		B12-M10A7
		C12-M10A7
NANOTUBES		
	carbon only	B05-U03A
		C05-U03A
		E05-U03
		L02-H04B
		V05-B05A5C
	used as electroconductivity agent for polymers	*A08-M09A1*
	used as thermal conductivity agent for polymers	*A08-M09C1*
	carbon plus heteroatom	B05-U04
		C05-U04
		E05-U04
	other 3D structures	B05-U05A
		C05-U05A
	inorganic	E31-U02
	manufacture of nanotubes	X12-D07E2A
NANOWHISKERS		
	inorganic	E31-U02
	organic	E05-U05B
NANOWIRES		
	inorganic	E31-U02

Appendix 2 - GREEN TECHNOLOGY

This appendix is designed as a quick reference guide for all manual codes across the chemistry, life sciences and engineering technologies that relate to "green technologies" such as: "green" transportation, e.g. hybrid, fuel cell and other zero emissions vehicles; alternative power sources such as wind and solar power; bio-fuels and any other technologies that enable control of pollution or reduction of carbon footprints.

For full details please look up the relevant code in the applicable manual. Classes A-N are covered by the CPI manual and section P-X by the EPI manual.

Note – Items in italics are of green interest but may contain details not applicable to green technologies.

GREEN TRANSPORTATION	X21
aircraft, muscle/pedal power	Q25-C01G
battery charging	X16-G02
for electric vehicle	X21-B01A
for motor vehicle	X22-F01A
for railway train	X23-A03C
bicycle	Q19-A
	X22-P01
boat	Q24
animal-drawn	Q24-E02G
canoe/kayak	Q24-P20
electric propulsion	W06-B01C6
muscle/pedal power	Q24-E01G
wind (sail) power	Q24-E01E
	Q24-P22
electric vehicle	Q19-P
	X21-A01F
foot propelled vehicles	Q22-M
fuel cell vehicle	X21-A01J
hybrid vehicle	Q19-Q
	X21-A01D
	X22-P04
hybrid-electric	Q19-Q01
	X22-P04A
hybrid-mechanical	Q19-Q05
	X22-P04E
parallel hybrid	X21-A01D1
series hybrid	X21-A01D3
regenerative braking	X13-F02
	X21-A03C
GREEN POWER SOURCES AND ENERGY GENERATION	A12-W16
battery	X16
catalysts	N07-L03A
for electric vehicle	X21-B01A
electricity generation	
from biomass combustion	X15-E
from exercise machine	W04-X01A5
	X15-X
from vehicle movement	X15-X
from waste fuel combustion	X15-E
flywheel energy storage	Q54-F
	X21-B04
fuel cell	X16-C
	L03-E04
catalysts	N07-L03A

for vehicle	X21-B01A
	X22-F01
polymer details	A12-E06
geothermal power	Q54-H
	X15-G
hydroelectric power	X11-B
dams	X11-B
generators	X11-B
mini/micro plant	X11-B05
pumped storage	X11-B06
turbines/water wheels	X11-B01
muscle power	Q54-I
ocean thermal energy conversion	Q54-X
	X15-C
osmotic power	X11-B09
	X15-C
profiting from waste heat	X15-H
IC engine exhaust heat recovery	Q51-J02F
IC engine waste heat recovery	X22-A17
power generation from traffic flow	X15-T
sea power	X15-C
salinity gradient power	X11-B09
	X15-C
solar power	Q54-H
	U12-A02
	X15-A
for electric vehicle	X21-B04A
for motor vehicle	X22-F03
photoelectric cells	A12-E11B
solar collector	X15-A01
solar panels	U12-A02A5
	X15-A02B
	L03-E05B
polymer details	A12-R02B
thermoelectric power	X15-D
tidal power	X15-C02
vortex power	X11-B09
	X15-C
water power	X11-B
	X15-C
water turbine	Q54-A
	X11-B01
generator	X11-B
wave power	X15-C01
wind power	Q54-G
	X15-B
for boat	Q24-E01E
for electric vehicle	X21-B04A
for motor vehicle	X22-F03
GREEN FOOD TECHNOLOGY	D03-K13
green packaging	D03-K08A
GREEN PACKAGING	Q33-J
food packaging	D03-K08A
packaging in general	Q31 to Q34
polymer packaging	A12-P
biodegradable plastics	A09-A07
scrap recovery/recycling of plastics	A11-C03
by shredding, cutting, pulverising, granulating	A11-C03A
cellulose production (incl. recycling paper bags)	F05-A02B

GREEN FUELS	
biofuels	
produced from algae	B14-Y
	C14-Y
gaseous biofuels	H06-A04
biogas	H06-A04
ethane	H06-A04
structural details	E10-J02D2
hydrogen	H06-A03
production by electrical means	E31-A02A
hydrogen generation-fuel cell	L03-E04I
	X16-C17
hydrogen reformer-fuel cell	X16-C17
hydrogen storage-fuel cell	X16-C15
molecular decomposition of hydrocarbons (plasmatron)	V05-F08F
methane	H06-A04
structural details	E10-J02D1
produced by fermentation	D05-C14
liquid biofuels	H06-B07
alcohol	H06-B08
bioalcohol	H06-B08
biodiesel	H06-B04A
bioether	H06-B07
butanol	H06-B08
ethanol	H06-B08
propanol	H06-B08
vegetable oil	H06-B04A
solid biofuels	
from municipal/agricultural	*D05-A04A*
waste treatment	H09-F03
ENVIRONMENTAL AWARENESS	
Biodegradability (of plastics)	A09-A07
environmental vessel for collecting pollution from open water	Q24-P06
green agro-chemicals (general)	C14-Y
green catalysts	N07-K01
green chemistry (general)	E11-K03
applications/compositions	E11-W
green pharmaceuticals (general)	B14-Y
oil spillage cleanup waste containment	H03-G
to prevent water contamination	D04-A05
POLLUTION CONTROL/REDUCTION	
catalytic combustion	N07-L01A
desulphurisation of coal	H09-H02
polymer application	A12-W11
fuel vapour recovery for IC engine	Q51-H02
electrical details	X22-A02E
using coagulants/ flocculants or polyelectrolytes	A12-W11E
other	A12-W11F
oil refinery	H05-L
polymer processing	A11-C07
waste gas treatment	
catalyst details	N07-L01C
for engine exhaust	Q51-J02
	E11-Q02A
	N07-L01C1
for motor vehicle exhaust	Q17-E09
	H06-C
	X22-A03J
removal of N oxides	E31-H02
catalytically	E31-H01
removal of S hydride, H_2S	E31-F01B

removal of S oxide SO_2,SO_3, SO_X	E31-F01A
removal of sulfur compounds	E31-F01
	N07-L02B
H_2SO_4, thiosulfate	E31-F01C
WATER/WASTE TREATMENT	E11-Q02
	N07-L01
green water processing	D04-D
industrial waste/effluent treatment	H09-F02
	E11-Q02B
capacitor manufacture	
electrolytic	V01-B01G6E
non-electrolytic	V01-B04B8E
semiconductor manufacture	U11-C15Q
	L04-X02
resistor manufacture	V01-A04R1
municipal/agricultural waste treatment	H09-F03
polymer waste treatment	A11-C07
purification of non-gaseous hydrocarbons	N07-L01D
removal of materials/compounds	
removal of carbon compounds	N07-L02D
removal of catalyst poisons	E11-Q02C
removal of impurities in general	N07-L02
removal of halogen compounds	N07-L02A
removal of metal compounds	N07-L02E
removal of nitrogen compounds	N07-L02C
removal of sulfur compounds	N07-L02B
removal of unwanted chemical reaction byproducts	E11-Q02C
sewage treatment	D04-A01J
	D04-B10
	D04-B11
	D05-A04A
electrical systems	X25-H03
incineration of sludge	D04-B10B
pyrolysis of sludge	D04-B10B
organic waste, town waste or sludge fermenation	*D05-A04A*
waste disposal processes/purification	N07-L01
catalytic combustion of waste	N07-L01A
waste water treatment	N07-L01B
	X25-H03
waste water from paper manufacture	F05-A02C
sewage sludge removal/treatment	D04-B10
electrical systems	X25-H03
dewatering sludge	D04-B10A
water treatment	D04-A01J
	N07-L01B
compositions	*A11-W11J*
removing coal slurry	D04-B03
removing hydrocarbons	D04-B03
removing impurities	D04-B
removing inorganic cyanides	D04-B07A
removing inorganic fluorine compounds and (thio)cyanates	D04-B07E
removing inorganic nitrogen compounds	D04-B07C
removing inorganic phosphorous	D04-B07B
removing inorganic sulfur compounds	D04-B07D
removing metals	D04-B05
heavy metals	D04-B05A
neutralising chromium	D04-B05A
removing lead	D04-B05A
removing mineral oil	D04-B03
removing natural products	D04-B04
clarification of water containing fat	D04-B04

removing organic materials	D04-B06
halohydrocarbons	D04-B06E
organic dyes/brighteners	D04-B06B
phenolic compounds	D04-B06A
polymers/monomers	D04-B06D
surfactants	D04-B06C
removing radioactive materials	D04-B07
	K07-B
RECYCLING/RECOVERY OF MATERIALS	
electrical recycling equipment	X25-W04
chemical extraction, recovery, purification	*E11-Q01*
polymer scrap recovery/recycling	A11-C03
recycling electrical components, equipment, and material	V04-X01G
	L03-J01
AV equipment	W03-G10C
battery materials	X16-M
	L03-E06
capacitor materials	
electrolytic	V01-B01G6G
non-electrolytic	V01-B04B8G
copier/printer/fax/scanner parts	S06-K04C
discharge tube salvaging	*V05-L07E6*
record carrier recycling and destroying	
general	T03-H02R
magnetic	T03-A01R
magneto-optical	T03-D01R
optical	T03-B01R
resistor materials	*V01-A04R2*
TV receiver	W03-A19C
semiconductors	U11-H
	L04-X06
recycling/recovery of ceramic	L02-A01
recycling/recovery of fuels	H06-X03
recycling/recovery of glass	L01-B02
recycling/recovery of paper	X25-T09G
	F05-A02B
in copier/printer/fax/scanner	S06-K04A
recycling/recovery of toner	S06-K04B
recycling waste gases	
from semiconductor manufacture	L04-X03
recycling waste water	D04-A06
from semiconductor manufacture	L04-X02
recovery of fibres	F03-E02
recovery of ferrous metals	*M24-A07*
recovery of non-ferrous metals	*M25-E*
recovery of organic products/waste	D05-A04A
e.g. for fertilizer production	
regeneration of pulp liquors during paper and fibre-board mfr.	F05-A02C
other	J09-C01A

Appendix 3 – GENETIC ENGINEERING

This appendix is designed as a quick reference guide for all manual codes that relate to genetic engineering.

For full details please look up the relevant code in the CPI manual.

Note – Items in italics are of interest to genetic engineering but may also contain details not applicable to genetic engineering.

BIOLOGICAL MATERIALS FOR USE IN GENETIC ENGINEERING	
newly discovered methylases	B04-L04
	C04-L04
	D05-H19A
newly discovered restriction endonucleases	B04-L05A
	D05-H19A
new or modified DNA and RNA polymerases	B04-L04A
	C04-L04A
	D05-H19B
GENETIC ENGINEERING TECHNIQUES	
Nucleic acid amplification method	
production	B11-C01E
	C11-C01E
	D05-H18B
testing	B11-C08E3
	C11-C08E3
	B11-C08E5
	C11-C08E5
	B11-C08F8
	C11-C08F8
	B12-K04F
	C12-K04F
	D05-H09
	D05-H18B
Nucleic acid sequencing method	B11-C08E4
	C11-C08E4
	B11-C08F7A
	C11-C08F7A
	B12-K04F
	C12-K04F
	D05-H09
	D05-H18A
GENE DELIVERY	
electroporation device	D05-H20
therapeutic	
by non-viral methods	B12-M19B
	C12-M19B
by viral methods	B12-M19A
	C12-M19A
GENE THERAPY	
gene therapy (general)	B14-S03
	C14-S03
antisense therapy	B14-S03B
	C14-S03B
gene therapy	B14-S03A
	C14-S03A
RNA interference	B14-S03C
	B14-S03C

NUCLEIC ACIDS

altered DNA coding sequences

encoding antibodies	B04-E02A
	C04-E02A
encoding antigens	B04-E02J
	C04-E02J
encoding enzymes	B04-E02E
	C04-E02E
encoding hormones	B04-E02C
	C04-E02C
encoding fusion protein	B04-E02H
	C04-E02H
	D05-H12C
general	B04-E02
	C04-E02
engineered mutant sequences	D05-H12B1
encoding modifiers of cell function and growth	B04-E02B
	C04-E02B
encoding nucleic acid	B04-E02K
	C04-E02K
encoding other protein/polypeptide	B04-E02F
	C04-E02F
oncogene	B04-E02G
	C04-E02G
encoding receptors	B04-E02D
	C04-E02D
patent with a Geneseq record	B04-E99
	C04-E99
	D05-H99
vectors, plasmids, cosmids, transposons	B04-E08
	C04-E08
	D05-H12E

PRODUCTION OF RECOMBINANT PROTEINS

fusion proteins	D05-H17C
comprising antibody or antibody fragments	D05-H17C1
mutant proteins/ polypeptides	
antibodies	D05-H17B1
via fermentation/large-scale isolation	*D05-C12*
antigen	D05-H17B5
via fermentation/large-scale isolation	*D05-C12*
cytokine, lymphokine, growth factor, hormone	D05-H17B2
via fermentation/large-scale isolation	*D05-C12*
enzymes	D05-H17B3
via fermentation/large-scale isolation	
coenzymes	D05-C03A
general	D05-C03
hydrolases	D05-C03C
isomerases	D05-C03F
ligases (synthetases)	D05-C03F
lyases	D05-C03E
oxidoreductases	D05-C03B
transferases	D05-C03D
general	D05-H17B
via fermentation/large-scale isolation	*D05-C12*
others	D05-H17B6
via fermentation/large-scale isolation	*D05-C12*
receptor	D05-H17B4
via fermentation/large-scale isolation	*D05-C12*
zinc finger proteins	D05-H17B7
via fermentation/large-scale isolation	D05-C12
protein/polypeptide (general)	D05-H17
via fermentation/large-scale isolation	D05-C12

wild type proteins/ polypeptides

antibodies	D05-H17A1
via fermentation/large-scale isolation	D05-C12
antigen	D05-H17A5
via fermentation/large-scale isolation	D05-C12
cytokine, lymphokine, growth factor, hormone	D05-H17A2
via fermentation/large-scale isolation	D05-C12
enzymes	D05-H17A3
via fermentation/large-scale isolation	
coenzymes	D05-C03A
general	D05-C03
hydrolases	D05-C03C
isomerases	D05-C03F
ligases (synthetases)	D05-C03F
lyases	D05-C03E
oxidoreductases	D05-C03B
transferases	D05-C03D
general	D05-H17A
via fermentation/large-scale isolation	D05-C12
others	D05-H17A6
via fermentation/large-scale isolation	D05-C12
receptor	D05-H17A4
via fermentation/large-scale isolation	D05-C12
zinc finger proteins	D05-H17A7
via fermentation/large-scale isolation	D05-C12

RECOMBINANT PROTEINS

antibodies

antibacteria	B04-G0700E C04-G0700E
antiblood cell	B04-G0600E C04-G0600E
anticancer cell	B04-G0500E C04-G0500E
antienzyme	B04-G0300E C04-G0300E
antifungus	B04-G09A0E C04-G09A0E
antihormone	B04-G0200E C04-G0200E
antimicroorganisms (other)	B04-G0900E C04-G0900E
antimodifier of cell function and growth	B04-G0200E C04-G0200E
antiparasitic	B04-G1200E C04-G1200E
antiplant	B04-G1000E C04-G1000E
anti-prion protein	B04-G2500E C04-G2500E
antiprotozoal	B04-G09B0E C04-G09B0E
antireceptor	B04-G0400E C04-G0400E
antivirus	B04-G0800E C04-G0800E
binding to another antibody	B04-G1100E C04-G1100E
bispecific	B04-G2400E C04-G2400E
catalytic	B04-G2000E C04-G2000E D05-H11C

fragments	B04-G2300E C04-G2300E
general	B04-G0100E C04-G0100E D05-H11
heterospecific	B04-G2600E C04-G2600E
human	B04-G01B0E C04-G01B0E
immunoglobulin A	B04-G27A0E C04-G27A0E
immunoglobulin D	B04-G27D0E C04-G27D0E
immunoglobulin E	B04-G27E0E C04-G27E0E
immunoglobulin G	B04-G27G0E C04-G27G0E
immunoglobulin M	B04-G27M0E C04-G27M0E
immunoglobulin W	B04-G27W0E C04-G27W0E
immunoglobulin X	B04-G27X0E C04-G27X0E
immunoglobulin Y	B04-G27Y0E C04-G27Y0E
monoclonal	B04-G2100E C04-G2100E D05-H11A2
murine	B04-G01D0E C04-G01D0E
polyclonal	B04-G2200E C04-G2200E D05-H11B
enzymes, catalytic proteins	
coenzymes	B04-L0200E C04-L0200E
dehydrogenases, reductases	B04-L03D0E C04-L03D0E
DNA/RNA polymerases	B04-L04A0E C04-L04A0E
enzymes, catalytic proteins (general and other)	B04-L0100E C04-L0100E
esterases (general)	B04-L05A0E C04-L05A0E
isomerases	B04-L0700E C04-L0700E
glycosidases	B04-L05B0E C04-L05B0E
hydrolases (general and other)	B04-L0500E C04-L0500E
kinases	B04-L04C0E C04-L04C0E
ligases	B04-L0800E C04-L0800E
lipoxygenases	B04-L03E0E C04-L03E0E
lyases	B04-L0600E C04-L0600E
metalloprotease	B04-L05C1E C04-L05C1E
oxidases	B04-L03A0E C04-L03A0E

	oxidoreductases (general and other)	B04-L0300E C04-L0300E
	oxygenases	B04-L03C0E C04-L03C0E
	peroxidases	B04-L03B0E C04-L03B0E
	phosphodiesterases	B04-L05A1E C04-L05A1E
	proteases (general)	B04-L05C0E C04-L05C0E
	reverse transcriptase	B04-L04B0E C04-L04B0E
	transferases (general and other)	B04-L0400E C04-L0400E
	translocases	B04-L1000E C04-L1000E
	zymogen and other enzyme precursors	B04-L0900E C04-L0900E
hormones		
	adrenocorticotropic hormone	B04-J05D0E C04-J05D0E
	antidiuretic hormone	B04-J05B0E C04-J05B0E
	angiotensin	B04-J1800E C04-J1800E
	calcitonin	B04-J04A0E C04-J04A0E
	cholecystokinin	B04-J1300E C04-J1300E
	corticotropin-releasing hormone	B04-J0600E C04-J0600E
	ecdysone	B04-J1600E C04-J1600E
	endorphins	B04-J1100E C04-J1100E
	enkephalins	B04-J1100E C04-J1100E
	gastrin	B04-J1200E C04-J1200E
	gonadotropin releasing hormone	B04-J0700E C04-J0700E
	gonadotropins	B04-J05H0E C04-J05H0E
	glucagon	B04-J03B0E C04-J03B0E
	growth hormone-releasing hormone/factor	B04-J0900E C04-J0900E
	hormones (general and other)	B04-J0100E C04-J0100E
	insulin	B04-J03A0E C04-J03A0E
	juvenile hormone	B04-J1700E C04-J1700E
	melanin concentrating hormone	B04-J1900E C04-J1900E
	melanocyte stimulating hormone	B04-J05G0E C04-J05G0E
	motilin	B04-J1200E C04-J1200E
	neurotensin	B04-J1500E C04-J1500E
	pancreatic hormone (general/other)	B04-J0300E C04-J0300E

parathyroid hormone	B04-J04B0E C04-J04B0E
pituitary gland hormones (general/other)	B04-J0500E C04-J0500E
oxytocin	B04-J05A0E C04-J05A0E
secretin	B04-J1200E C04-J1200E
somatostatin	B04-J1000E C04-J1000E
somatropin-releasing factor	B04-J0900E C04-J0900E
tachykinins	B04-J1400E C04-J1400E
thyroid and parathyroid (general/other)	B04-J0400E C04-J0400E
thyroid stimulating hormone	B04-J05F0E C04-J05F0E
thyrotropin releasing hormone	B04-J0800E C04-J0800E

modifiers of cell function and growth

actin	B04-H20C1E C04-H20C1E
activin A	B04-H1800E C04-H1800E
adhesion and motor molecules (general and other)	B04-H2000E C04-H2000E
bone morphogenetic protein	B04-H06L0E C04-H06L0E
clotting factors	B04-H1900E C04-H1900E
colony stimulating factors (general)	B04-H0400E C04-H0400E
epidermal growth factor	B04-H06A0E C04-H06A0E
erythropoietin and thrombopoietin	B04-H0700E C04-H0700E
fibroblast growth factor	B04-H06G0E C04-H06G0E
fibronectin	B04-H20A0E C04-H20A0E
granulocyte colony stimulating factor	B04-H04A0E C04-H04A0E
granulocyte macrophage colony stimulating	B04-H04C0E C04-H04C0E
growth factors (general/other)	B04-H0600E C04-H0600E
hepatocyte growth factor	B04-H06K0E C04-H06K0E
integrins	B04-H2100E C04-H2100E
interferon (general and other)	B04-H0500E C04-H0500E
interferon alpha	B04-H05A0E C04-H05A0E
interferon beta	B04-H05B0E C04-H05B0E
interferon gamma	B04-H05C0E C04-H05C0E
interferon delta	B04-H05D0E C04-H05D0E
interferon kappa	B04-H05K0E C04-H05K0E

interleukin (general)	B04-H0200E C04-H0200E
interleukin 1	B04-H02A0E C04-H02A0E
interleukin 2	B04-H02B0E C04-H02B0E
interleukin 3	B04-H02C0E C04-H02C0E
interleukin 4	B04-H02D0E C04-H02D0E
interleukin 5	B04-H02F0E C04-H02F0E
interleukin 6	B04-H02G0E C04-H02G0E
interleukin 7	B04-H02H0E C04-H02H0E
interleukin 8	B04-H02J0E C04-H02J0E
interleukin 9	B04-H02K0E C04-H02K0E
interleukin 10	B04-H02L0E C04-H02L0E
interleukin 11	B04-H02M0E C04-H02M0E
interleukin 12	B04-H02N0E C04-H02N0E
interleukin 13	B04-H02P0E C04-H02P0E
interleukin 14-20	B04-H02Q0E C04-H02Q0E
interleukin 21-25	B04-H02R0E C04-H02R0E
interleukin 26-30	B04-H02S0E C04-H02S0E
interleukin 31-35	B04-H02T0E C04-H02T0E
leukemia inhibitory factor	B04-H0900E C04-H0900E
lymphotoxin	B04-H1300E C04-H1300E
macrophage colony stimulating factor	B04-H04B0E C04-H04B0E
macrophage derived growth factor	B04-H06C0E C04-H06C0E
macrophage inflammatory protein	B04-H1100E C04-H1100E
megakaryocyte colony stimulating factor	B04-H04D0E C04-H04D0E
megakaryocyte potentiator	B04-H1200E C04-H1200E
mullerian inhibitory substance	B04-H1000E C04-H1000E
muscle proteins (general)	B04-H20C0E C04-H20C0E
myosin	B04-H20C2E C04-H20C2E
nerve growth growth factor	B04-H06D0E C04-H06D0E
plasminogen activator	B04-H1500E C04-H1500E
platelet activating factor	B04-H1400E C04-H1400E

platelet derived growth factor	B04-H06B0E
	C04-H06B0E
prostatic growth factor	B04-H06J0E
	C04-H06J0E
somatomedins	B04-H06H0E
	C04-H06H0E
stem cell factor	B04-H1600E
	C04-H1600E
sulfation factors	B04-H06H0E
	C04-H06H0E
t-activin	B04-H1700E
	C04-H1700E
thymic factor	B04-H1700E
	C04-H1700E
transforming growth factor	B04-H06F0E
	C04-H06F0E
tropomyosin	B04-H20C3E
	C04-H20C3E
tumour necrosis factor	B04-H0800E
	C04-H0800E
vascular endothelial growth factor	B04-H06M0E
	C04-H06M0E
vitronectin	B04-H20B0E
	C04-H20B0E
other protein/polypeptide	
animal protein/polypeptide	B04-N02A0E
(complete sequence)	C04-N02A0E
animal protein/polypeptide	B04-N0200E
(no sequence)	C04-N0200E
animal protein/polypeptide	B04-N02B0E
(sequence fragments)	C04-N02B0E
bacterial protein/polypeptide	B04-N03J1E
(complete sequence)	C04-N03J1E
bacterial protein/polypeptide	B04-N03J0E
(no sequence)	C04-N03J0E
bacterial protein/polypeptide	B04-N03J2E
(sequence fragments)	C04-N03J2E
fungal protein/polypeptide	B04-N03L1E
(complete sequence)	C04-N03L1E
fungal protein/polypeptide	B04-N03L0E
(no sequence)	C04-N03L0E
fungal protein/polypeptide	B04-N03L2E
(sequence fragments)	C04-N03L2E
fusion proteins	B04-N0800E
	C04-N0800E
glycoprotein	B04-N0600E
	C04-N0600E
ion channel proteins	B04-N0700E
	C04-N0700E
lipoprotein	B04-N0500E
	C04-N0500E
microorganism protein/polypeptide	B04-N03A0E
(complete sequence)	C04-N03A0E
microorganism protein/polypeptide	B04-N0300E
(no sequence)	C04-N0300E
microorganism protein/ polypeptide	B04-N03B0E
(sequence fragments)	C04-N03B0E
molecular chaperones and chaperonins	B04-N0900E
	C04-N0900E
peptidoglycan	B04-N0600E
	C04-N0600E
plant protein/polypeptide	B04-N01A0E
(complete sequence)	C04-N01A0E

plant protein/polypeptide (no sequence)	B04-N0100E C04-N0100E
plant protein/polypeptide (sequence fragments)	B04-N0IB0E C04-N01B0E
prions	B04-N1000E C04-N1000E
protein/polypeptide (undefined origin) (complete sequence)	B04-N04A0E C04-N04A0E
protein/polypeptide (undefined origin) (no sequence)	B04-N0400E C04-N0400E
protein/polypeptide (undefined origin) (sequence fragments)	B04-N04B0E C04-N04B0E
signalling pathway proteins	B04-N1300E C04-N1300E
transcription factors (general)	B04-N1200E C04-N1200E
viral protein/polypeptide (complete sequence)	B04-N03K1E C04-N03K1E
viral protein/polypeptide (complete sequence)	B04-N03K0E C04-N03K0E
viral protein/polypeptide (sequence fragments)	B04-N03K2E C04-N03K2E
zinc finger proteins	B04-N1100E C04-N1100E
patent with a Geneseq record	*B04-E99* *C04-E99* *D05-H99*
receptors	
androgen receptors	B04-K01L1E C04-K01L1E
angiotensin receptor	B04-K01N0E C04-K01N0E
antibody receptor	B04-K01W0E C04-K01W0E
bacterial or bacterial antigen receptor	B04-K01T0E C04-K01T0E
blood cell or blood cell antigen receptor	B04-K01R0E C04-K01R0E
cancer cell/cancer cell antigen receptor	B04-K01S0E C04-K01S0E
cell, microbe or antigen receptor (other)	B04-K01V0E C04-K01V0E
corticosteroid receptors	B04-K01L3E C04-K01L3E
dopamine receptor	B04-K01C0E C04-K01C0E
estrogen receptors	B04-K01L2E C04-K01L2E
G-protein coupled receptor	B04-K01Y0E C04-K01Y0E
growth factor receptor	B04-K01J0E C04-K01J0E
histamine receptor	B04-K01F0E C04-K01F0E
hormone receptor (other)	B04-K01P0E C04-K01P0E
insulin receptor	B04-K01M0E C04-K01M0E
interleukin receptor	B04-K01G0E C04-K01G0E
leukotriene receptor	B04- K01H0E C04-K01H0E

lipoprotein receptor	B04-K01Q0E C04-K01Q0E
melanin concentrating hormone receptor	B04-K01Y1E C04-K01Y1E
modifier of cell function and growth receptor (other)	B04-K01K0E C04-K01K0E
non-steroidal nuclear (hormone) receptor	B04-K01X0E C04-K01X0E
parasympathetic receptor	B04-K01A0E C04-K01A0E
peroxisome proliferative activated receptor	B04-K01X1E C04-K01X1E
prostaglandin receptor	B04-K01H0E C04-K01H0E
receptors (general and other)	B04-K0100E C04-K0100E
serotonin receptor	B04-K01D0E C04-K01D0E
steroid receptor (general)	B04-K01L0E C04-K01L0E
steroid receptors (other)	B04-K01L4E C04-K01L4E
sympathetic receptor	B04-K01B0E C04-K01B0E
thromboxane receptor	B04- K01H0E C04-K01H0E
thyroid receptor	B04-K01X2E C04-K01X2E
viral or viral antigen receptor	B04-K01U0E C04-K01U0E

TRANSFORMED CELLS

cells, microorganisms, transformants, hosts, cell lines, tissue general	B04-F0100E C04-F0100E D05-H14

eukaryotic cells

algae	B04-F08A0E C04-F08A0E
amphibian	B04-F07B0E C04-F07B0E D05-H14B4
arthropod	B04-F07A0E C04-F07A0E D05-H14B1
avian	B04-F07B0E C04-F07B0E D05-H14B4
blood cells (general)	B04-F0400E C04-F0400E
cancer cells (mammalian)	B04-F02A0E C04-F02A0E D05-H14B2
carcinoma (mammalian)	B04-F02A0E C04-F02A0E D05-H14B2
chimeric cells	B04-F05A0E C04-F05A0E *D05-H15B*
fish	B04-F07B0E C04-F07B0E D05-H14B4
fungus (multicellular, non-higher)	B04-F09E0E C04-F09E0E

fused cells	B04-F05A0E C04-F05A0E *D05-H15B*
germ cells	B04-F0300E C04-F0300E
hybridoma (general)	B04-F0500E C04-F0500E *D05-H15A*
lymphocytes (general)	B04-F04B1E C04-F04B1E
mammalian (including human)	B04-F0200E C04-F0200E D05-H14B2
other animal, non-mammalian (general)	B04-F0700E C04-F0700E D05-H14B4
other white blood cells (general)	B04-F04B2E C04-F04B2E
ova	B04-F0300E C04-F0300E
plant	B04-F0800E C04-F0800E D05-H14B3
platelets	B04-F1300E C04-F1300E
red blood cells	B04-F04A0E C04-F04A0E
reptile	B04-F07B0E C04-F07B0E D05-H14B4
sperm	B04-F0300E C04-F0300E
stem cells (mammalian)	B04-F02B0E C04-F02B2E D05-H14B2
unspecified cell lines	B04-F0100E C04-F0100E D05-H14B
white blood cells (general)	B04-F04B0E C04-F04B0E
microbial cells	
adenovirus	B04-F11A1E C04-F11A1E D05-H12F
algae	B04-F08A0E C04-F08A0E
Aspergillus	B04-F09A0E C04-F09A0E D05-H14A2
Bacillus	B04-F10B1E C04-F10B1E D05-H14A1
bacteria (general)	B04-F1000E C04-F1000E D05-H14A1
Bordetella	B04-F10A1E C04-F10A1E D05-H14A1
Borrelia	B04-F10A2E C04-F10A2E D05-H14A1

Coronavirus	B04-F11B2E C04-F11B2E D05-H12F
DNA viruses (general)	B04-F11A0E C04-F11A0E D05-H12F
Escherichia	B04-F10A3E C04-F10A3E D05-H14A1
fungus (unicellular, general)	B04-F0900E C04-F0900E D05-H14A2
gram-negative bacteria (general/other)	B04-F10A00E C04-F10A00E D05-H14A1
gram-positive genera (general/other)	B04-F10B0E C04-F10B0E D05-H14A1
Mycobacteria	B04-F10B2E C04-F10B2E D05-H14A1
Mycoplasma	B04-F10A4E C04-F10A4E D05-H14A1
Neisseria	B04-F10A5E C04-F10A5E D05-H14A1
Neurospora	B04-F09B0E C04-F09B0E D05-H14A2
protozoa	B04-F0600E C04-F0600E D05-H14A3
Pseudomonas	B04-F10A6E C04-F10A6E D05-H14A1
retrovirus	B04-F11B1E C04-F11B1E D05-H12F
Rickettsia	B04-F10A7E C04-F10A7E D05-H14A1
RNA viruses (general)	B04-F11B0E C04-F11B0E D05-H12F
Saccharomyces	B04-F09C0E C04-F09C0E D05-H14A2
Salmonella	B04-F10A8E C04-F10A8E D05-H14A1
Staphylococcus	B04-F10B3E C04-F10B3E D05-H14A1
Streptococcus	B04-F10B4E C04-F10B4E D05-H14A1
Streptomyces	B04-F10B5E C04-F10B5E D05-H14A1
unspecified microbial cells	B04-F0100E C04-F0100E D05-H14A

Vibrio	B04-F10A9E C04-F10A9E D05-H14A1
viruses (general)	B04-F1100E C04-F1100E D05-H12F
yeast (general)	B04-F0900E C04-F0900E D05-H14A2

TRANSGENIC ORGANISMS

animals

arthropods	B04-P01C0E C04-P01C0E D05-H16A
farm animals	B04-P01B0E C04-P01B0E D05-H16A
general	B04-P0100E C04-P0100E D05-H16A
laboratory experimental animals	B04-P01A0E C04-P01A0E D05-H16A

plants

angiosperms (general)	B04-A08G0E C04-A08G0E D05-H16B
anthocerotophyta (hornworts)	B04-A08A3E C04-A08A3E D05-H16B
ascomycota	B04-A08D1E C04-A08D1E D05-H16B
basidiomycota	B04-A08D2E C04-A08D2E D05-H16B
bryophta (mosses)	B04-A08A2E C04-A08A2E D05-H16B
bryophytes (general)	B04-A08A0E C04-A08A0E D05-H16B
cycadophyta (cycads)	B04-A08F3E C04-A08F3E D05-H16B
dicots	B04-A08G2E C04-A08G2E D05-H16B
equisetopsida	B04-A08B2E C04-A08B2E D05-H16B
fungi (higher)	B04-A08D0E C04-A08D0E D05-H16B
general	B04-A0800E C04-A0800E D05-H16B
ginkgophyta	B04-A08F2E C04-A08F2E D05-H16B
gnetophyta	B04-A08F4E C04-A08F4E D05-H16B

gymnosperms (general)	B04-A08F0E C04-A08F0E D05-H16B
marattiopsida	B04-A08B3E C04-A08B4E D05-H16B
marchantiophyta (liverworts)	B04-A08A1E C04-A08A1E D05-H16B
monocots	B04-A08G1E C04-A08G1E D05-H16B
pinophyta (conifers)	B04-A08F1E C04-A08F1E D05-H16B
polypodiopsida	B04-A08B4E C04-A08B4E D05-H16B
psilotopsida	B04-A08B1E C04-A08B1E D05-H16B
pteridophytes (general)	B04-A08B0E C04-A08B0E D05-H16B

plant extracts

bark	B04-A10H0E C04-A10H0E
bran	B04-A10G0E C04-A10G0E
cereal	B04-A10G0E C04-A10G0E
flower	B04-A10C0E C04-A10C0E
fruit	B04-A10K0E C04-A10K0E
fungi	B04-A10A0E C04-A10A0E
grain	B04-A10G0E C04-A10G0E
hay	B04-A10J0E C04-A10J0E
leaf	B04-A10B0E C04-A10B0E
nuts	B04-A10G0E C04-A10G0E
pollen	B04-A10D0E C04-A10D0E
root	B04-A10F0E C04-A10F0E
sap	B04-A10J0E C04-A10J0E
sawdust	B04-A10H0E C04-A10H0E
seed husk	B04-A10G0E C04-A10G0E
seed meal	B04-A10G0E C04-A10G0E
seed	B04-A10G0E C04-A10G0E
stem	B04-A10J0E C04-A10J0E
straw	B04-A10J0E C04-A10J0E

wood	B04-A10H0E C04-A10H0E
wood shaving	B04-A10H0E C04-A10H0E
plant parts	
bark	B04-A09G0E C04-A09G0E
bran	B04-A09F0E C04-A09F0E
cereal	B04-A09F0E C04-A09F0E
flowers	B04-A09B0E C04-A09B0E
fruit	B04-A09K0E C04-A09K0E
grain	B04-A09F0E C04-A09F0E
hay	B04-A09H0E C04-A09H0E
leaves	B04-A09A0E C04-A09A0E
nuts	B04-A09F0E C04-A09F0E
peat	B04-A09J0E C04-A09J0E
pollen	B04-A09C0E C04-A09C0E
roots	B04-A09D0E C04-A09D0E
sap	B04-A09H0E C04-A09H0E
sawdust	B04-A09G0E C04-A09G0E
seed husks	B04-A09F0E C04-A09F0E
seed meal	B04-A09F0E C04-A09F0E
seeds	B04-A09F0E C04-A09F0E
stems	B04-A09H0E C04-A09H0E
straw	B04-A09H0E C04-A09H0E
wood	B04-A09G0E C04-A09G0E
wood shavings	B04-A09G0E C04-A09G0E
TRANSOMATIC ORGANISMS	
animals	D05-H16C
plants	D05-H16D

Appendix 4: DIGITAL HEALTH

This appendix is designed as a quick reference guide for all manual codes across the chemistry, life sciences and engineering technologies that relate to Digital Health or Digital Healthcare including telemedicine, health information technology, mobile health and personalized medicine.

For full details please look up the relevant codes in the CPI manual (classes A-N), and the GMPI and EPI manual (classes P-X).

ELECTRICAL MEDICAL EQUIPMENT

alarm based on medical parameter or medical failure	S05-Y01 W05-B07G5
built-in phone medical parameter monitoring equipment	W01-C01P8
electrical medical diagnosis/monitoring	S05-D
blood pressure monitoring	S05-D01B1A S02-F04C2
blood flow monitoring	S05-D01B1B
diet/nutrition monitoring	S05-D09
heart rate monitoring	S05-D01B5
implanted device	S05-Y05
ingestible device	S05-Y05
measuring and recording systems for bio-electric currents	S05-D01A
electrocardiography (ECG, EKG)	S05-D01A1
encephalography/myography (EMG, EEG, MEG)	S05-D01A2
measuring neurological/nerve stimulation	S05-D01A
online medicine	T01-N01E
sleep monitoring	S05-D01C7
telediagnosis	S05-D06A
diagnostic displays	S05-D07
hospital equipment	
patient monitoring	S05-G02B2
patient monitoring from remote location	S05-G02B2A
pacemakers	
remote programming and control	S05-A01A5A
artificial organs	B11-C04F
peripheral devices for therapeutic regimens	B11-C06C
transmission of control or measurement signals for medical equipment	W05-D07M

FITNESS/PERFORMANCE TRACKING

performance monitoring during e.g. sports training	W04-A01A1
physiological measurements	S05-D01
smart phones	W01-C01G8S
smart watches	T01-M06A1D S04-B09
wearable computers	T01-M06A1D

HEALTHCARE INFORMATICS - MEDICAL/HOSPITAL IT SYSTEMS

computerised teaching models	B11-C11B W04-W
data processing for medical equipment and information systems	T01-J06
data transfer/storage	S05-G02G3
data transmission	W01
preventing or detecting interception	W05-D05B5A
protecting against malicious software	W05-D05B5C
preventing or detecting unauthorized network access	W05-D05B5E
data/drug database	B11-C11 T01-J05B4

health care administration	S05-G02G2 T01-J05A2
hospital IT system	S05-G02G T01-J06A
medical simulation and training	S05-P T01-J30A W04-W07
online medical information systems	T01-N01E1
patient medical records	S05-G02G1 T01-J05B T01-J06A1
pharmacovigilance	S05-G02G5
telediagnosis	S05-D06A
patient medical records	T01-J06A1

OPERATING SYSTEMS/NETWORK CONNECTIVITY

health apps	T01-N03A1
computer processing for sports and training equipment	T01-J30D
data transmission	W01
preventing or detecting interception	W05-D05B5A
protecting against malicious software	W05-D05B5C
preventing or detecting unauthorized network access	W05-D05B5E
diagnostic displays	S05-D07
online medicine	T01-N01E
software	T01-S
transmission of control or measurement signals for medical equipment	W05-D07M
user monitoring	T01-N02B2A

PERSONAL ITEMS

calorie counter	S05-D09 X27-A02
biosensor	B11-C08E8 S05-C

PERSONALISED/PRECISION MEDICINE

3D printing of medications/tablets	X25-A08C2 X25-A08U2
bioprinting	B11-C17 X25-A08M3 X25-A08U2
drug design by computer modelling	B11-C08H T01-J13
formulation counting/measuring devices	B11-C06B
patient compliance methods and systems	B11-C11A S05-G02G5
targeted therapies	B12-Q01A S05-A

REMOTE CONTROL AND MONITORING

alarm based on medical parameter or medical failure	W05-B07G5
implanted/ingestible device	S05-Y05 B11-C04A
medical parameter monitoring equipment	W01-C01P8
pacemakers	S05-A01A5A
patient monitoring	S05-G02B2 T01-J06A
remote control (telemetry)	W05-D08E
telediagnosis	S05-D06A
transmission of control or measurement signals for medical equipment	W05-D07M

Appendix 5: Artificial Intelligence (AI)

This appendix is designed as a quick reference guide for all manual codes across the chemistry, life sciences and engineering technologies that relate to Artificial Intelligence.

AI TECHNIQUES	T01-J16
AI human-computer interface	T01-J16E
AI using internet/network	T01-N01G
Bayes theorem	T01-J16C5
Chatbot/ChatGPT	T01-J16E
Complex learning	T01-J16D
Computer vision	T01-J16C3B
	T01-J10B2
	T04-D07
Distributed artificial intelligence	T01-J16D
	T01-N01D3A
Expert systems	T01-J16A
Fuzzy logic systems	T01-J16B
Genetic algorithms	T01-J16C4
Image analysis/processing/conversion	T01-J16C3B
	T01-J10B2
	T04-D03
Intelligent searching	T01-J16C6
	T01-J05B3
	T01-N03A2
Knowledge processing	T01-J16C
Large language models (LLM)	T01-J16C3C
Machine learning	T01-J16C2
Natural language processing	T01-J16C3
Neural networks	T01-J16C1
	T06-A05A
Pictorial language processing	T01-J16C3
Predictive analytics	T01-J16C5
Probabilistic reasoning	T01-J16C5
Speech processing	T01-J16C3A
	T01-J18
	T01-C08A
	W04-V
AI APPLICATIONS	T01-J16P
Aerospace	T01-J16P9
	W06-B
	T01-J07D
Advertising (targeted -)	T01-J16P4
	T01-J05A2M
	T01-N01A2C
Agriculture, fishing & forestry	T01-J16P1
	T01-J05A4
	X25-N
Automated warehousing	T01-J16P2
	T01-J05A2
	X25-F07
Biology (computational -)	T01-J16P6B
	T01-J13A
Business, banking, finance & retail	T01-J16P4
	T01-J05A
	T01-N01A
Chatbot /ChatGPT	T01-J16E
	T01-N03A1C

Communication	T01-J16P8 T01-N01D3 W01
Crime detection	T01-J16P7
Cyber-bullying combat	T01-J16P4 T01-N02B2
Cyber warfare	T01-J16P7 T01-N02B2 W07-F03 W07-X
Deep-fakes (detection of -)	T01-J16P3
Domestic & personal	T01-J16P5 X27
Early warning systems for earthquakes, landslides, etc	T01-J16P6B T01-J13 S03-C05 W05-B08
E-commerce	T01-J16P4 T01-J05A T01-N01A2A
Education, Arts & Entertainment	T01-J16P3 T01-J30A T01-N01B3 W04-W
Energy generation/transmission	T01-J16P10 X12-H08
Fraud detection	T01-J16P4 T01-J05A1
Gaming (online -)	T01-J16P3 T01-N01B1 W04-X02C
Genetics/genotyping/sequencing	T01-J16P6B B11-C11 C11-C11
Geophysical natural disaster prediction and detection	T01-J16P6B T01-J13 S03-C05 W05-B08
Healthcare	T01-J16P6A T01-J13 S05
Industrial & Manufacturing	T01-J16P2 T01-J07B
Life science	T01-J16P6B
Marketing	T01-J16P4 T01-J05A2M
Medical	T01-J16P6A T01-J06 S05
Military	T01-J16P7 W07-X09
Mining	T01-J16P2 T01-J05A4 X25-D02
Patient health monitoring	T01-J16P5 T01-J06A S05-G02B2
Personal health monitoring	T01-J16P5 T01-J06A1
Power generation/transmission	T01-J16P10 X12-H09
Satellite	T01-J16P8 W02-C03B

Scientific analysis/research	T01-J16P6B
	T01-J13
Security	T01-J16P7
	T01-J12C
Smart grids	T01-J16P10
	X12-H08
Smart home/living	T01-J16P5
	W05-D07A
	X27-V
Smart phone	T01-J16P8
	W01-C01D3C
	W01-C01G8S
Social media	T01-J16P4
	T01-N01A2D
	T01-N01G
Space exploration	T01-J16P6B
	W06-B03
Telecommunications	T01-J16P8
Television	T01-J16P8
	W03
Traffic management/modelling	T01-J16P9
	T07-M
Transportation	T01-J16P9
Vehicles	T01-J16P9
	T01-J07D
	X21
	X22
Virtual assistants	T01-J16E1
Warfare, including cyber warfare	T01-J16P7
	W07-F03
	W07-X

CPI INDEX

A

Abietic acid A03-C02 B09-D01 C09-D01 E09-D01
Abortifacient B14-P01B C14-P01B
Abrasion reducers (polymer use) A12-H10
Abrasive compositions
for household cleaning D11-D01B3
non polymeric G04-B04
papers A12-A03
Abrasives L02-F
abrasives for detergents D11-B09
ABS copolymer A04-C03
Absorbents B12-M21 C12-M21
for gas sseparation J01-E03C
for gas storage J06-B06
for liquid treatment J01-D01
for waste gases J01-E02B
polymer additives A08-S08
super absorbents A12-W13
Absorption on resin, non-ferrous metal extraction M25-B03
Absorption process for water purification D04-A01F
Absorption property of polymers A09-A08
Abzyme B04-G20 C04-G20 D05-H11C
Acaricide B12-B04 B14-B04A C12-B04 C14-B04A
Accelerator B12-M21 C12-M21
for catalysts N06-G
Accelerator for particles K08-X L03-H04D
photographic development G06-H12
Accelerators for blowing agents A08-M
Accelerators for crosslinkers
for olefinic unsaturated and addition polymers A08-C03
for other resins A08-D+
Acceptor layers, photographic A12-L02F G06-A04
Acceptors, electron; (de-sensitisers) G06-H06
Accessories for
knitting machines F02-B04
papermaking machines F05-A05
sewing F02-F01B+
Accumulator L03-E
cryogenic J07-D03
electrical A12-E06+
Acenaphthene B08-D03 C08-D03 E08-D03
Acenaphthylene
(co)polymers A04-C
monomer A01-D03
Acetal B10-A23 C10-A23 E10-A23 E10-A23A E10-A23B
resin (polyoxy methylenes) A05-H02+
Acetal, polyvinyl A10-E02
Acetaldehyde B10-D01 C10-D01 E10-D01
condensant A01-E10
Acetalised polymers A10-E02
Acetate, cellulose A03-A02+ B04-C02A3 C04-C02A3
Acetate, vinyl - see Vinyl acetate
Acetate-butyrate, cellulose A03-A02+ A03-A03 B04-C02A3 C04-C02A3
Acetic acid - see also Vinegar B10-C04E C10-C04E E10-C04J E10-C04J2
production E10-C04J2P
use E10-C04J2U
Acetone B10-F02 C10-F02 E10-F02
condensant A01-E10
formaldehyde resins A05-J08
Acetophenone E10-F02A
crosslinking agent:
for ethylenically unsaturated and addition polymers A08-C
for other resins A08-D
photopolymerisation catalyst A02-A09
Acetyl choline potentiator B12-E05 B14-J02A1 C12-E05 C14-J02A1
Acetylene B10-J01 C10-J01 E10-J01
(co)polymers A04-A02
fuel composition containing H09-E
monomer A01-B02
production by wet methods H09-E
purification H09-E
Acetylene black A08-R03 E31-N G01-A11
Acetylenic compounds containing double bond(s)
(co)polymers A04-A01
monomer A01-B01
Acetylenic hydrocarbon B10-J01 C10-J01 E10-J01
Acid adhesion promotor for polymer A08-M01C
Acid anhydride - see under appropriate acid
Acid crosslinkers for ethylenically unsaturated unsaturated and addition polymers A08-C+
other resins A08-D02
Acid detergent additive D11-B13
Acid dyes for dyeing/ printing fibres F03-F21
Acid esterified/ esterification of polymer A10-E07+
Acid halide - see under appropriate acid
Acid refractories L02-E03
Acid treatment in petroleum refining H04-A05
Acid, carboxylic see carboxylic acid
Acidising (in well treatment) H01-C04
Acidosis disease treatment B14-S13A C14-S03A
Acne B14-N17D C14-N17D
Acoustic insulation A12-R06 A12-S+ F04-E06 L02-D15
boards L02-D15C
ceramic oxides L02-G06
foam: other A12-S04B
polystyrene A12-S01
polyurethane A12-S02F
vehicles A12-T04B
Acoustic well logging H01-A02C
Acridine B06-D11 C06-D11 E06-D11
Acrolein B10-D01 C10-D01 E10-D01
(co)polymers A04-F02
monomer A01-D05
production E10-D01A
Acrylamides E10-D03C
(co)polymers A04-D04+
monomer A01-D06
Acrylate, alkyl E10-G02
(co)polymers A04-F06+
monomer A01-D10B
Acrylated epoxy resin
process A05-A+ A10-E07B
product A10-E07B
Acrylated polymers (i.e. acrylic acid(s) esterified) A10-E07B

Acrylated polyurethanes (NCO terminated prepolymer + hydroxyalkyl acrylates)
process A05-G+ A10-E24
product A10-E24
Acrylic (co)polymer aqueous dispersions/latexes A07-B02
Acrylic acid E10-C04G+
(co)polymers A04-F04
monomer A01-D08
Acrylic acid aldehyde - see Acrolein
Acrylic acid amides - see Acrylamides
Acrylic acid anhydride
(co)polymers A04-F04
monomer A01-D08
Acrylic acid esterifed by aminoalcohol
(co)polymers A04-D09
monomer A01-D07 A01-D10B
Acrylic acid esters, diolefinic
(co)polymers A04-B09
monomer A01-C01
Vinyl acrylate E10-G02D1 E10-G02H2A
Acrylic acid esters, monoolefinic
(co)polymers A04-F06
monomer A01-D10B
production E10-G02D3
use E10-G02H2C
Acrylic acid halides
(co)polymers A04-E
monomer A01-D12
Acrylic acid, metal salts - see corresponding Acrylic acid entry
Acrylic acids polymer paint A12-B01E G02-A02C4
Acrylic acid production E10-C04G1A
Acrylic acid use E10-C04G2A
Acrylic adhesive F02-A05B1 G03-B02D1
Acrylic aldehydes, monoolefinic
(co)polymers A04-F02
monomer A01-D05
Acrylic amides polymer paint A12-B01E G02-A02C4
Acrylic containing epoxy paint, varnish or lacquer A12-B01E G02-A02C1
Acrylic esters - see Acrylic acid esters
Acrylic fibres A04-D02B A04-D03B
chemical features in production F01-D02
dyeing/printing F03-F05
Acrylic flocculants A12-M01
Acrylic nitriles polymer
based paint A12-B01E G02-A02C4
Acrylic paint, varnish or lacquer A12-B01E G02-A02C+
Acrylic polyelectrolytes A12-M01
Acrylic polymer coatings A12-B01E
on metal A12-B04D
Acrylonitrile B10-A15 C10-A15 E10-A15
(co)polymers A04-D03+
(co)polymers with butadiene A04-B04
(co)polymers with butadiene and styrene A04-C03
homopolymer A04-D02+
monomer A01-D04
Acrylonitrile (co)polymer fibre A04-D02B A04-D03B
chemical features of F01-D02
dyeing/printing F03-F05
Acrylonitrile- butadiene- styrene copolymer (ABS) A04-C03
Acryloyl halides - see Acrylic acid halides
ACTH (Adrenocorticotropic hormone) B04-B02D4 B04-J05D C04-B02D4 C04-J05D
Actin B04-H20C1 C04-H20C1
Actinic radiation - see UV irradiation
Actinide, actinoid (element 89+) catalysts N03-A
Actinium compounds B05-A03 C05-A03
inorganic E35-Y
organic E05-Q
Actinomycin B02-A C02-A
Activated carbon J01-E02B3 J01-E03C3
Activators for
concrete setting L02-D14A
crosslinking A08-C02 A08-D+
polymerisation catalysts A02-A+
Active carbon E31-N
purification of water D04-A01F
Active C treatment D04-A01F2
Active photographic materials released on processing, excluding dyes G06-C15
Acyclic saturated hydrocarbon B10-J02 C10-J02 E10-J02D
Acyclic unsaturated hydrocarbon B10-J01 B10-J02 C10-J01 C10-J02 E10-J01 E10-J02C
Adamantane B09-D01 C09-D01 E09-D01
Addition (co)polymers in polymeric blends A07-A+
Addition polymer
adhesive, binder A12-A05B+ G03-B02D+
stabilisers, general A08-A01A
Addition polymerisation A10-B+ A10-C+
Addition of Boron functions E11-F10C
Addition of other heteroatom functions E11-F10D
Addition of Phosphorus functions E11-F10A
Addition of Silicon functions E11-F10B
Addition process (chemical) B11-C01 C11-C01 E11-F+
catalytic N07-D+
Addition reactions of carbonyl (C=O)
other than hydroformylation E11-F02B
other than to olefinic bonds E11-F02B
hydroformylation E11-F02A
to olefinic bonds E11-F02A
Addition reactions of carboxylate (CO2) E11-F02B
Addition reactions of nitrogenous functions E11-F07
Additive colour systems, for photosensitive systems G06-C13
Additives for
cement L02-C08
concrete L02-D14
fodder D03-G01
fuels H06-D
lubricants H07-G
polymers A08+
Adenosine B04-B03A C04-B03A
Adenovirus B04-F11A1 C04-F11A1
Adenyl cyclase inhibitor B14-D08 C14-D08
Adenylic acid B04-B03B C04-B03B
Adhesion improvers for fibres
in bulk material F01-H06B
polymers A08-M01+
Adhesion molecules B04-H20 C04-H20
Adhesive
and methods for PCBs L03-H04E6A
laminating (textiles) F03-D01
on a carrier (excluding tape) A12-A01A
paper A12-A01A
processes general G03-B03
sheet A12-A01A
tape A12-A01 G03-B04

Adhesive bonded non-woven fabric F02-C01C
Adhesives A12-A+ G03+
  Coating metal using M13-H03
  dental D08-A02
  dental, polymer use in A12-V02B
  inorganic (including silicone resins) G03-B01
  organic including polymers A12-A+ G03-B02+
  paper F05-A06B
  tyre cord A12-T01C
Adhesives containing A12-A+
  gelatin G03-A
  glue G03-A
  inorganic constituent G03-B01
  natural or synthetic rubber G03-B02B
  natural polymer (other) G03-B02A
  organic constituent G03-B02+
  silicon polymers A06-A00E1 G03-B01
  synthetic polymer (general) G03-B02C
Adhesives containing addition polymers G03-B02D+
  (meth)acrylamide (co)polymers A04-D04A1
  (meth)acrylate (co)polymers A04-F06E6
  (meth)acrylic acid/ anhydride (co)polymers A04-F04B
  acrylic polymers G03-B02D1
  olefinic hydrocarbon polymers G03-B02D3
  polyethylene A04-G02E1 G03-B02D3
  PVA A10-E09B1 G03-B02D2
  PVC A04-E02E2 G03-B02D2
  styrenic polymers G03-B02D3
  vinyl ester polymer G03-B02D2
  vinyl halide polymer G03-B02D2
Adhesives containing condensation polymer G03-B02E+
  aminoplasts A05-B01 G03-B02E1
  epoxy resins A05-A01E3 G03-B02E2
  phenol-formaldehyde G03-B02E1
  phenol-formaldehyde res A05-C01B1 A05-C03A
  phenoplasts G03-B02E1
  polyesters G03-B02E3
  polyurethane, polyurea, or isocyanate based G03-B02E4
Adipates plasticisers/extenders A08-P04
Adipic acid B10-C02 C10-C02 E10-C02D E10-C02D2
  condensant A01-E12
Adiponitrile E10-A15A
  condensant A01-E05 A01-E12
Adipoyl chloride condensant A01-E12
Adjuvants, vaccine B14-S11F+ C14-S11f+
Administration mode B12-M12+ C12-M12+
  buccal B12-M12A C12-M12A
  cervical B12-M12L C12-M12L
  external B12-M12B C12-M12B
  injection B12-M12C C12-M12C
  infusion B12-M12D C12-M12D
  intraarterial B12-M12E C12-M12E
  intraarticular B12-M12S C12-M12S
  intraaural B12-M12G C12-M12G
  intramedular B12-M12T C12-M12T
  intramuscular B12-M12J C12-M12J
  intranasal B12-M12Q C12-M12Q
  intraocular B12-M12H C12-M12H
  intraosseous B12-M12O C12-M12O
  intraperitoneal B12-M12U C12-M12U
  intratracheal B12-M12I C12-M12I
  intravenous B12-M12F C12-M12F
  subcutaneous B12-M12K C12-M12K
  intrauterine B12-M12L C12-M12L
  intravaginal B12-M12M C12-M12M
  oral general B12-M12N C12-M12N
  rectal B12-M12P C12-M12P
  specific treament regime B12-M12Z C12-M12Z
Adrenaline potentiator B12-E07 B14-J02C1 C12-E07 C14-J02C1
Adrenergic blocker B12-E06 C12-E06
  alpha B14-J02D1 C14-J02D1
  beta B14-J02D2 C14-J02D2
  general B14-J02D C14-J02D
Adrenergic stimulant B12-E07 B14-J02C1 C12-E07 C14-J02C1
Adrenocortical B12-G04 B14-D01 C12-G04 C14-D01
Adrenocorticotropic hormone (ACTH) B04-B02D4 B04-J05D C04-B02D4 C04-J05D
Adrenocorticotropin B04-B02D4 B04-J05D C04-B02D4 C04-J05D
Adrenolytic B12-E06 B14-J02D C12-E06 C14-J02D
Adriamycin B02-D C02-D
Adsorbents for
  gas separation J01-E03C
  gas storage J06-B06C
  liquid separation J01-D01
  waste gas treatment J01-E02B
  water treatment D04-A01F
Adsorbents (polymer use in) A12-W11D
Adsorption property of polymer A09-A08
Adult Respiratory Distress Syndrome treatment B14-K01F C14-K01F
Advertising A12-W03
Aeration of
  fermentation media D05-A03C
  water D04-A01K D04-A01K2
Aerials, electrical (polymer use) A12-E
Aeroplanes - see Aircraft
Aerosil filler A08-R06A
Aerosol B12-M01A C12-M01A
  composition G04-B07
  containers A12-P06A
After treatment of
  dyed/printed textiles F03-F14
  pulp in papermaking F05-A02B
Agar A03-A B04-C02D C04-C02D
Ageing inhibitor
  additive for polymer A08-A+
Ageing resistance
  improvement of fabrics F03-C07
Aggregates L02-D13
Agonist general and other B14-L01 C14-L01
Agriculturals C
Agriculture
  composition, machine for producing B11-C05 C11-C05
  foam use in A12-S04C
  nuclear applications K09-C
  polymer use in A12-W04+
AIDS treatments B14-G01B C14-G01B

Air conditioning J07-A07
J01-G03C
buildings A12-R02
textile factories F03-K
transport A12-T
Air drying of solids J08-H01
Air laying of non-woven fabrics
F02-C02G
Air, in oxidation reactions E11-E01
Airbags F04-E03A
vehicle safety A12-T04E
K04-C
Aircraft A12-T
runway compositions A12-R09
Airjet
treatment of fibres F01-H02
weaving F02-A04B
Air sterilisation, disinfection D09-B
by irradiation D09-B07
Albumen A03-C01
B04-B04A6
B04-N02
C04-B04A6
C04-N02
Alcohol B10-E04
C10-E04
E10-E04
condensant A01-E14
denaturing D05-D
testing J04-B01B2
thio B10-E03
C10-E03
E10-E03+
unsaturated aliphatic B10-E04
C10-E04
E10-E04
unsaturated aliphatic (co)polymers A04-F
unsaturated aliphatic monomer A01-D09
Alcohol production by fermentation D05-C15
Alcoholism treatment B12-J05A
B14-M01A
C12-J05A
C14-M01A
Alcohols
condensants A01-E14
glycidyl ethers of A05-A03
Alcoholysed polymers A10-E09+
Aldehyde B10-D01
C10-D01
E10-D01
condensant (excluding HCHO) A01-E10
unsaturated aliphatic
unsaturated aliphatic (co)polymers A04-F02
unsaturated aliphatic monomer A01-D05
Aldehyde condensation polymers
from formaldehyde only A05-H02+
from trioxane only A05-H02+
polyoxymethylene A05-H02+
with amides/amines A05-B+
with other condensants e.g. naphthalene sulphonic acid A05-J08
with phenols A05-C+
Aldehyde/ketone polycondensates A05-J08
Aldosterone antagonist B14-D02A1
C14-D02A1
Alfin polymerisation catalysts A02-A05
Algae B04-B02B3
C04-B02B3
chlorella B04-F08
C04-F08
seaweed B04-A08
C04-A08
unicellular B04-F08
C04-F08
Alginates A03-A
B04-C02D
C04-C02D
Alicyclic
3 or more rings fused
general B09-H
C09-H
E09-H
spirofused B09-S
C09-S
3 rings fused B09-D
C09-D
E09-D
4 rings fused B09-C
C09-C
E09-C
5 rings fused B09-B
C09-B
E09-B
6 or more rings fused B09-A
C09-A
E09-A
1-2 rings fused B10
C10
E10
hydrocarbon E10-J02A
E10-J02A1
E10-J02A2
Alicyclic polyepoxides A05-A05
Aligning masks and layers in semiconductor processing L04-C06D
Alignment layers L03-G05B8
Aliphatic - see also acyclic
Aliphatic dibasic acid(s)+ diamine(s) derived polyamide A05-F02
Aliphatic hydrocarbon (acyclic) D05-C09
acetylenic E10-J01
saturated E10-J02D
unsaturated olefinic E10-J02C
unsaturated olefinic, production by disproportiation E10-J02C2
unsaturated olefinic, production by oligomerisation E10-J02C1
unsaturated olefinic, production by other methods E10-J02C3
unsaturated olefinic, uses E10-J02C4
Aliphatic sulphonic acid detergents D11-A01B2
Alkali halide electrolysis J03-B04
Alkali metal
alloys M26-B
catalysts N01-A
electrodes for batteries L03-E01B5
in glass composition L01-A01
incorporated/incorporation in polymers A10-E21
organic compounds as olymerisation catalyst (excluding with transition metal) A02-A07B
production M25-G04
Alkali metal compounds B05-A01B
C05-A01B
inorganic E33
organic E05-A
Alkali treating of fabrics F03-C08
Alkali treatment in petroleum refining H04-A06
Alkali, detergent additives D11-B11
D11-B11D
Alkaline earth metal
alloys M26-B
catalysts N01-B
incorporated/incorporation in polymers A10-E21+
organic compounds as polymerisation catalyst (excluding with transition metal) A02-A07B
pigment/filler G01-A01
production M25-G05
Alkaline earth metal compounds B05-A01B
C05-A01B
inorganic E34
organic E05-B
Alkaloid (general) B04-A07A
C04-A07A
E04-A
Alkane B10-J02
C10-J02
E10-J02D
Alkenes B10-J02
C10-J02
E10-J02C
production by disproportionation E10-J02C2
production by oligomerisation E10-J02C1
production by other methods E10-J02C3
uses E10-J02C4
Alkenes - see also Olefins
Alkoxide of metal, catalyst N05-A
Alkoxylated melamine resins A10-E08C
Alkyd resins A05-E08
Alkyl acrylates - see Acrylic acid esters
Alkyl metal catalyst for polymerisation A02-A+
Alkyl metal catalysts N05-A

Alkyl orthophosphate B05-B01P C05-B01P E05-G09C
Alkyl styrenes
(co)polymers A04-C05
monomer A01-D03
Alkyl sulphate B10-A09A C10-A09A E10-A09A2
detergents D11-A01F1
Alkylated melamine-formaldehyde resin
process A05-B02 A10-E08C
product A10-E08C
Alkylated methylolated amines/amides
process A05-B+ A10-E08C
products A10-E08C
Alkylated/alkylation of polymer (direct C-C bond) A10-E03
Alkylation H04-E13A
Alkylation (gasoline preparation) H04-D02
Alkylene oxide
condensants A01-E07
polyethers A05-H+
polyetherurethanes A05-G03
Alkyleneimine polymers A05-J07
Alkynes B10-J01 C10-J01
Alkynes-production E10-J01A
Alkynes-use E10-J01B
Allergen B04-B04C9 C04-B04C9
Allethrin B04-A07C C04-A07C
Allopregnane B01-D01 C01-D01
Allotropism E11-R04A
Alloying of ferrous melts M24-C08
Alloys (ferrous) M27-A
cast iron M27-A03
master M27-A02
production M27-A01
shape memory M27-D05
steel M27-A04
treatment M27-B
treatment, cast iron M27-B03
treatment, master M27-B02
treatment, production M27-B01
treatment, steel M27-B04
Alloys (gas adsorbents) J06-B06C3
Alloys (non-ferrous)
based on particular metals M26-B
production M26-A
production by melting M26-A01
production by pressing or sintering M26-A02
Allyl acetate E10-G02
(co)polymers A04-F
monomer A01-D10
Allyl acrylates E10-G02
(co)polymers A04-B09
monomer A01-C01
Allyl alcohol E10-E04M2
(co)polymers A04-F
monomer A01-D09
Allyl chloride E10-H02J
(co)polymers A04-E
monomer A01-D12
Allyl ether
(co)polymers A04-F11
monomer A01-D11
Allyl glycidyl ether
(co)polymers A04-F11 A05-A04
monomer A01-D11 A01-E07
Allyl methacrylate - see Allyl acrylates
Allyl sulphonic acid
(co)polymers A04-A06
monomer A01
Alpha amino acid (carboxylic) B10-B02 C10-B02 E10-B02D
Alpha radiation - see Ionising radiation
Alpha-adrenergic blocker B12-E06A B14-J02D1 C12-E06A C14-J02D1
Alpha-chloroacrylic acid
(co)polymers A04-E
monomer A01-D08 A01-D12
Alpha-chlorostyrene
(co)polymers A04-C
monomer A01-D02
Alpha-methyl styrene E10-J02B
(co)polymers A04-C05
monomer A01-D03
Alphacillin B02-P03 C02-P03
Alternating copolymerisation A10-C01
Alternators A12-E08B
Alum(in)oxanes A06-D01
as polymerisation catalysts A02-A
Alumina B05-A01B C05-A01B L02-G01A
catalyst (without silica) (non- polymerisation) N01-C02
cements L02-C07
filler A08-R G01-A10
flame retardant A08-F
glass composition L01-A03A
polymerisation catalyst support A02-D
production E34-C01 L02-G11
smoke inhibitor A08-F
use E34-C02
Alumina-silica mixture E31-P02
catalyst (not zeolite) N01-C01 N01-C01A N01-C01B
Aluminising, using solid M13-D01B
Aluminium alloy M26-B09
conductive tracks on semiconductor devices L04-C10C
powder or flake G01-A12A
Aluminium catalysts N01-C
Al/Si (not zeolite) N01-C01+
alumina N01-C02
not alumina, Al/Si N01-C03
zeolites N06+
Aluminium chloride (Friedel-Crafts) polymerisation catalyst A02-A04
Aluminium compounds B05-A01B C05-A01B
inorganic E34-C
inorganic excluding (hydr)oxides E34-C03
organic containing Al-C bond E05-B02
organic without Al-C bond E05-B03
pigment/filler G01-A10
Aluminium hydrocarbon compounds polymerisation catalyst
in absence of transition metal (or compounds) A02-A07C
in presence of transition metal (or compunds) A02-A06C
Aluminium hydroxide B05-A01B C05-A01B
flame retardant A08-F05
production E34-C01
use E34-C02
Aluminium oxide - see Alumina
Aluminium powder or flake G01-A12A
Aluminium production M25-G01
Alumino-thermic welding M23-E02
Aluminosilicate E31-P02 L02-G01A
Aluminum - see Aluminium
Alzheimer's disease treatment B12-G04A B14-J01A4 C12-G04A C14-J01A4
Americium compounds B05-A04 C05-A04
inorganic E35-R
organic E05-Q
Amidated/amidation of polymers A10-E17+
of epoxy resins A10-E17A
of other polymers A10-E17B
of polyethers A10-E17A
Amide - see under appropriate acid
Amides
condensants A01-E03
crosslinkers for ethylenically unsaturated polymers A08-C09
crosslinkers for other

polymers A08-D04
monomers, monoolefinic A01-D06
Amidine B10-A17
C10-A17
E10-A17
E10-A17A
E10-A17B
Aminated/amination of polymers
of epoxy resins A10-E18
of other polymers A10-E19
of polyethers A10-E18
Amine oxide B10-A03
C10-A03
E10-A03
Amine oxides as disinfectants other than of food or air D09-A04C
Amine-epihalohydrin polymers A05-J09
Amine-polymaleimide polymers A05-J11
Amines B10-B
C10-B
E10-B+
catalysts N05-D
condensants A01-E05
crosslinkers for ethylenically unsaturated polymers A08-C09
crosslinkers for other polymers A08-D03
cyclic monoolefinic monomer A01-D01
Amino acids, alpha, (carboxylic) B10-B02
C10-B02
E10-B02D+
aromatic E10-B02A+
biosynthesis D05-C01
condensants A01-E04
detection and analysis of J04-B03
homopolycondensates A05-F03
polyamides A05-F03
Amino phenols E10-B03A1
E10-B03B1
condensant A01-E05
A01-E13
crosslinkers for ethylenically unsaturated polymers A08-C09
crosslinkers for other polymers A08-D03
Aminoalkyl (meth)acrylate (co)polymers A04-D09
monomer A01-D07
A01-D10B
Aminoalkyl cellulose - see Cellulose ethers
Aminoalkyl silane adhesion improvers A08-M01D
Aminoalkylated/ amino alkylation of polymer A10-E03
Aminoarylated/ aminoarylation of polymer A10-E03
Aminocaproic acid condensant A01-E04
Aminoplasts A05-B+
adhesive/binder A12-A05D
G03-B02E1
coating/paint A12-B01J
G02-A02F
Aminotriazine condensant A01-E01
Ammonia B05-C01
C05-C01
E32-A
Ammonia catalyst N04-A
Ammonia removal from water D04-B07C
Ammonia-oxidation reaction E11-F07C
Ammoxidation reaction E11-F07C
Ammonium chloride
crosslinker for ethylenically unsaturated polymers A08-C09
crosslinker for other polymers A08-D03
Ammonium compounds
inorganic B05-C01
C05-C01
E32-A
Ammonium inorganic catalyst N04-A
Ammonium nitrate B05-C01
B05-C02
C05-C01
C05-C02
E32-A
Ammonium organic (quaternary N)
catalyst N05-D
compounds mono B10-A22
C10-A22
E10-A22
compounds poly B10-A21
C10-A21
E10-A21
Ammonium orthophosphate, general B05-B02A2
C05-B02A2
production E31-K03
use E31-K05E
Ammonium persulphate E31-E03
crosslinker for ethylenical unsaturated polymers A08-C05
crosslinker for other polymers A08-D
redox polymerisation catalyst system component A02-A03
sole polymerisation catalyst species A02-A01
Ammonium polyphosphate, general B05-B02A2
C05-B02A2
production E31-K04
use E31-K06
Ammonium salt with inorganic P acid B05-B02A2
C05-B02A2
general production, excluding orthophosphates E31-K04
use, excluding ortho- and polyphosphates E31-K07
Ammonium sulphate B05-C01
C05-C01
E32-A
Ammunition K03-A
decommissioning K03-A04
Ammunition - see also Military
Amniotic fluid B04-B04H
C04-B04H
Amoebicide B12-B01
B14-A03A
C12-B01
C14-A03A
Amorphous layers on semiconductors L04-C03
Amoxicillin B02-P02
C02-P02
Amphibian cells B04-F07A
C04-F07A
Ampholyte detergent mixtures with other detergents D11-A04
D11-A12
Amphoteric refractories L02-E09
Amphotericin B B02-A
C02-A
Ampicillin B02-P02
C02-P02
Amplification processes for production
B11-C01E
C11-C01E
Ampoule B12-M04
C12-M04
Anabolic agent B12-J01
B14-E11
C12-J01
C14-E11
Anaemia treatment B12-H01
B14-F03
C12-H01
C14-F03
Anaesthetic
general B12-C01
B14-C07
C12-C01
C14-C07
local B12-C02
B14-C08
C12-C02
C14-C08
Analeptic B12-C03
B14-J01A2
C12-C03
C14-J01A2
Analgesic B12-D01
B14-C01
C12-D01
C14-C01
Analogue Nucleic Acid B04-E11
C04-E11
Analysis J04-B01
Chemdoc E11-Q
Farmdoc/Agdoc B12-K04
C12-K04
laboratory equipment A12-L04
J04-B
medical A12-V03C2
B12-K04
C12-K04
of fabrics F03-K02
of ferrous metals and alloys M24-A06
of non-ferrous metals and alloys M25-H
of NBC agents K02-A04
of polymers (chemical constitution) A09-B

microanalysis J04-B04
reactions and reagents J04-B01B
spectral J04-B01A
using various methods (Chemdoc) E11-Q03
using electrical properties J04-C02B
using optical properties J04-C02C

Anchor bolts A12-H12

Ancillary equipment for semiconductor processing L04-D10

Androgen inhibitor B12-G01A B14-D02A C12-G01A C14-D02A

Androgen receptor B04-K01L1 C04-K01L1

Androgenic B12-G04B B14-D01A C12-G04B C14-D01A

1,4-Androstadiene B01-B03 C01-B03

Androstadiene (other than 1,4) B01-B04 C01-B04

Androstane (saturated ring "A") B01-D02 C01-D02

Aneurin B03-B C03-B

Angina pectoris treatment B12-F02 B14-F01D C12-F02 C14-F01D

Angiogenic B14-F02F1 C14-F02F1

Angiosperms B04-A08C2 C04-A08C2 B08-A08G+ C04-A08G+

Angiotensin B04-J18 C04-J18

Angiotensin agonist/mimetic B14-L02 C14-L02

Angiotensin antagonists B14-F02B1 C14-F02B1

Angiotensin converting enzyme inhibitor B12-F05A B14-F02B1 C12-F05A C14-F02B1

Anhydride - see under appropriate acid

Anhydride crosslinking agents A08-C+ A08-D02

Aniline E10-B04A E10-B04A1 E10-B04A2
condensant A01-E05

Aniline-based aminoplasts A05-B

Animal cells B04-B04A3 B04-F01 C04-B04A3 C04-F01

Animal excrement B04-B04B C04-B04B
Faeces B04-B04B2 C04-B04B2
Urine B04-B04B1 C04-B04B1

Animal extract, general E04-B
mammalian B04-B04L C04-B04L
non-mammalian B04-B04M C04-B04M

Animal feed yeast production D05-B04

Animal feeds D03-G D03-J10

Animal fibres
chemical treatment F01-B01
dyeing/printing F03-F02
mechanical treatment F01-A01

Animal oils B04-B01C2 C04-B01C2

Animal polysaccharides B04-C02E C04-C02E

Animal protein B04-B04A6 B04-N02 C04-B04A6 C04-N02

Animal repellant A08-M02

Animal repellent B12-N06 B14-B13 C12-N06 C14-B13

Animal waste, protein recovery from D03-F04

Animal waxes B04-B01C2 C04-B01C2

Animals (whole)
arthropods B04-P01C C04-P01C
domestic B04-P01B C04-P01B
experimental B04-P01A C04-P01A
farm B04-P01B C04-P01B
fish B04-P01 C04-P01
general B04-P01 C04-P01
insects B04-P01C C04-P01C
laboratory B04-P01A C04-P01A
poultry B04-P01B C04-P01B
wild B04-P01 C04-P01

Animal use only of D08 codes D08-C

Anion exchange resins - see Ion exchange resins

Anionic detergent D11-A01

Anionic dyes for dyeing/printing fibres F03-F21

Anisotropic melt/solutions of polymers A09-A02A

Annealing of
ferrous metal M24-D02B
fibres F01-H05
glass L01-G02
non-ferrous metal M29-C
polymers A11-B02+
semiconductors (laser) L04-C16B

Anodic protection M14-E

Anodising M11-E
for anticorrosive or decorative purposes M11-E01
for electrical purposes M11-E02

Anodyne C12-D01

Anorectal disease treatment B14-N07 C14-N07

Anorectic B12-J02 B14-E12 C12-J02 C14-E12

Anorexia treatment B12-J01 B14-E11A C12-J01 C14-E11A

Antacid B12-J03 B14-E01 C12-J03 C14-E01

Antagonist general and other B14-L06 C14-L06

Anthracene B08-D02 C08-D02 E08-D02

Anthraquinone dye A08-E03B E22
condensed ring system E22-E
for dyeing textiles F03-F16C
for polyamide textiles F03-F06C
for polyester textiles F03-F07C
reactive E22-D
water insoluble E22-C
water soluble, cationic E22-A
water soluble, not cationic E22-B

Anti DNA/RNA polymerase B14-D06A C14-D06A

Anti heavy metal poisoning B12-J05C B14-M01D C12-J05C C14-M01D

Anti-graffiti coatings G02-A05J

Anti-ozonants for polymers A08-A07

Anti-reflective layers in photographic materials and processes G06-A02A

Anti-SRS-A B12-D02D C12-D02D

Antiabortive B14-P03 C14-P03

Antiacetyl choline B12-E04 B14-J02B1 C12-E04 C14-J02B1
Antiageing (senility) B12-G04A B14-J01A4 C12-G04A C14-J01A4
Antiageing additives A08-A+
Antiageing preparations D08-B09A3
Antiaggregants B14-F04 C14-F04
Antialcoholism B12-J05A B14-M01A C12-J05A C14-M01A
Antialdosterone B14-D02A1 C14-D02A1
Antialgal B12-A02A B14-A05 C12-A02A C14-A05
Antiallergic B12-D02 B14-G02A C12-D02 C14-G02A
Antiamnesia B14-J01A4 C14-J01A4
Antiamoebic B12-B01 B14-A03A C12-B01 C14-A03A
Antianaemia B12-H01 B14-F03 C12-H01 C14-F03
Antianaphylactic B12-J05 B14-G02B C12-J05 C14-G02B
Antiandrogenic B12-G01A B14-D02A5 C12-G01A C14-D02A5
Antianginal B14-F01D C14-F01D
Antiangiogenic B14-F02F2 C14-F02F2
Antiangiotensin converting enzyme B12-F05A B14-F02B1 C12-F05A C14-F02B1
Antiapoptotic B14-H04 C14-H04
Antiarrhythmia B12-F01A B14-F01A C12-F01A C14-F01A
Antiarteriosclerotic B12-H03 B14-F07 C12-H03 C14-F07
Antiarthritic B12-D03
  general and other B14-C09 C14-C09
  osteoarthritis B14-C09A C14-C09A
  rheumatoid-arthritis treatment B14-C09B C14-C09B
Antiarthritic general and other C12-D03
Antiasthmatic B12-D02 B12-K02 B14-K01A C12-D02 C12-K02 C14-K01A
Antibacterial B12-A01 C12-A01
  Bacillus B14-A01B5 C14-A01B5
  Bordetella B14-A01A1 C14-A01A1
  Borrellia B14-A01A2 C14-A01A2
  Escherichia B14-A01A3 C14-A01A3
  Mycobacteria B14-A01B1 C14-A01B1
  M. Tuberculosis B14-A01B1A C14-A01B1A
  M. Leprae B14-A01B1B C14-A01B1B
  Mycoplasma B14-A01A4 C14-A01A4
  Neisseria B14-A01A5 C14-A01A5
  Pseudomonas B14-A01A6 C14-A01A6
  Rickettsia B14-A01A7 C14-A01A7
  Salmonella B14-A01A8 C14-A01A8
  Staphylococcus B14-A01B4 C14-A01B4
  Streptococcus B14-A01B2 C14-A01B2
  Streptomyces B14-A01B3 C14-A01B3
  Vibrio B14-A01A9 C14-A01A9
  general B14-A01 C14-A01
  gram-negative general B14-A01A C14-A01A
  gram-positive general B14-A01B C14-A01B
Antibacterial (plant)
  Pseudomonas C14-A01C2
  Agrobacteria C14-A01C3
  Enterobacteria C14-A01C1
  general C14-A01C
Antibiotics B02 C02 E02
  as disinfectants other than of food or air D09-A01C
  biosynthesis D05-C02
Antiblocking agents for polymers A08-M07
Antibody B04-B04C C04-B04C
  antialgal B04-G09 C04-G09
  antiamoebal B04-G09 C04-G09
  antibacterial B04-G07 C04-G07
  antiblood B04-G06 C04-G06
  anticancer B04-B04C4 B04-G05 C04-B04C4 C04-G05
  anticytokine B04-G02 C04-G02
  antienzyme B04-G03 C04-G03
  antifungal B04-G09 C04-G09
  antihormone B04-G02 C04-G02
  antiinterleukin B04-G02 C04-G02
  antilymphokine B04-G02 C04-G02
  antimetabolic factor B04-G02 C04-G02
  antimicrobial (excluding vaccines) B04-B04C3 C04-B04C3
  antimicrobial (other than bacterial or viral) B04-G09 C04-G09
  antiparasitic B04-G12 C04-G12
  antiplant B04-G10 C04-G10
  antireceptor B04-G04 C04-G04
  antiviral B04-G08 C04-G08
  as part of fusion protein D05-H17C1
  binding to another antibody B04-G11 C04-G11
  bispecific antibodies B04-G24 C04-G24
  catalytic antibodies B04-G20 C04-G20
  chimeric B04-G01A C04-G01A
  fragments B04-G23 C04-G23
  general D05-H11
  general and other B04-G01 C04-G01
  heterospecific B04-G26 C04-G26
  human B04-G01B C04-G01B
  humanized B04-G01C C04-G01C
  monoclonal B04-B04C5 B04-G21 C04-B04C5 C04-G21 D05-H11A
  murine B04-G01D C04-G01D
  other B04-B04C6 C04-B04C6

polyclonal B04-G22 C04-G22 D05-H11B
recombinant production of D05-H17A1
recombinant production of mutated antibodies D05-H17B1
site specific release B12-M10E2 C12-M10E2

Antibody - Antigen reaction
general B11-C07A C11-C07A

Antibody-producing cells B04-F05 C04-F05 D05-H15A

Antibordetella B14-A01A1 C14-A01A1

Antibradykinin B12-E02 B12-F04 B14-D02B C12-E02 C12-F04 C14-D02B

Antibronzing agents, photographic G06-H11

Anticaking B12-M11A C12-M11A
agents for detergents D11-B04

Anticancer B12-G07 B14-H01 C12-G07 C14-H01

Anticarcinogenic B12-G07 B14-H01 C12-G07 C14-H01

Anticaries B14-N06A C14-N06A

Anticaries composition D08-A05

Anticatabolic B12-J01 B14-E11 C12-J01 C14-E11

Anticataleptic B12-E02 B14-J01A2 C12-E02 C14-J01A2

Anticatatonic B14-J01A2 C14-J01A2

Anticholesterol B12-H03 B14-D02A2 C12-H03 C14-D02A2

Anticholinergic B12-E04 B14-J02B1 C12-E04 C14-J02B1

Anticoagulant B12-H02 B14-F04 C12-H02 C14-F04

Anticonvulsant B12-D04 B14-J07 C12-D04 C14-J07

Anticorrosion additives for water D04-A03

Anticorticosterone B14-D02A C14-D02A

Anticrustacean B12-N04 B14-B04 C12-N04 C14-B04

Anticurl layers, photographic G06-A

Antidehydrogenase B14-D05D C14-D05D

Antidepressant B12-C06 B14-J01A1 C12-C06 C14-J01A1

Antidiabetic B12-H05 B14-S04 C12-H05 C14-S04

Antidiarrhoeal B12-J04 B14-E02 C12-J04 C14-E02

Antidiuretic hormone (ADH) B04-J05B C04-J05B

Antidiuretics B14-N09 C14-N09

Antidopaminergic B14-J02D3 C14-J02D3

Antidotes general and other B12-J05 B14-M01 C12-J05 C14-M01
acute intoxication B14-M03 C14-M03
herbicide B14-M01E C14-M01E
pesticide B14-M01E C14-M01E

Antiemetic B12-D05 B14-E05 C12-D05 C14-E05

Antiepileptic B12-D04 B14-J07 C12-D04 C14-J07

Antiesterase B14-D07A C14-D07A

Antieumycetes B12-A02C B14-A04 C12-A02C C14-A04

Antifebric B12-D08 B14-C04 C12-D08 C14-C04

Antifebrile B12-D08 B14-C04 C12-D08 C14-C04

Antifertility B12-G01A B14-P01 C12-G01A C14-P01

Antifibrillatory B12-F01A B14-F01A C12-F01A C14-F01A

Antifibrinolytic B12-H04 B14-F08 C12-H04 C14-F08

Antifibroblastogenic B12-G07 B14-H01A C12-G07 C14-H01A

Antiflatulent B14-E03 C14-E03

Antifoaming agents A08-S03

Antifoggants (photographic) G06-H03

Antifouling B12-A08 C12-A08 C14-B15
additive for paints A08-M02
additives
bactericidal, fungicidal etc. G02-A03B
coatings G02-A05G
for paints G02-A03B
polymer scale build-up prevention A08-S08
soil repellents A08-S08

Antifouling coatings G02-A05G

Antifreeze A12-W11G G04-B01 H08-D02

Antifungal B12-A02C C12-A02C
Aspergillus B14-A04A C14-A04A
Candida B14-A04B C14-A04B
Microsporum B14-A04C C14-A04C
Trichophyton B14-A04C C14-A04C
additives A08-M02
combating resistant fungi B14-A04X C14-A04X
general B14-A04 C14-A04

Antifungal (plant)
Alternaria C14-A06A
Botrytis C14-A06B
Fusarium C14-A06C
Helminthosporium C14-A06D
Phytophora C14-A06E
Pythium C14-A06F
Rhizoctonia C14-A06G
Sclerotinia C14-A06H
Sclerotium C14-A06J
Septoria C14-A06K
Venturia C14-A06L
Verticillium C14-A06M
bunts C14-A06S
Downy mildew C14-A06P
general C14-A06
others C14-A06T
powdery mildew C14-A06N
rice blast treatment C14-A06
rusts C14-A06R
smuts C14-A06S

combating resistant plant fungi C14-A06X
Antigen-antibody reaction apparatus B11-C07A7 C11-C07A7
testing B11-C07 C11-C07
Antigens B04-B04C C04-B04C
microbial B02-V02 B04-B04C1 C02-V02 C04-B04C1
cancer B04-B04C8 C04-B04C8
Allergen B04-B04C9 C04-B04C9
other B04-B04C2 C04-B04C2
Antiglycosidase B14-D07B C14-D07B
Antigout B12-G03 B14-C02 C12-G03 C14-C02
Antigreying agents (in detergents) D11-B01C
Antihaemophilus B12-A01 B14-A01A C12-A01 C14-A01A
Antihaemorrhage B12-H04 B14-F08 C12-H04 C14-F08
Antihaemorrhoids B12-J04 B14-E04 C12-J04 C14-E04
Antihalation agents, photographic G06-A02
Antihardeners, photographic G06-H14
Antihelmintic B12-B02 B14-B03 C12-B02 C14-B03
Antihistamine B12-D06 C12-D06
general B14-L09 C14-L09
H1-secretion inhibitors B14-L10 C14-L10
H2-secretion inhibitors B14-L11 C14-L11
Antihistaminergic B14-L09 C14-L09
Antihormone B12-G01A B14-D02 C12-G01A C14-D02
Antihydrolase B12-G01B3 C12-G01B3
general and other B14-D07 C14-D07
Antihypercholesterolaemic B12-H03 B14-D02A2 C12-H03 C14-D02A2
Antihypertensive B12-F05 B14-F02B C12-F05 C14-F02B
Antihypotensive B12-F04 B14-F02A C12-F04 C14-F02A
Antihypothermia B14-C05 C14-C05
Antihypoxemia B12-K06 B14-K01 C12-K06 C14-K01
Antiicing additive (fuels) H06-D03
Antiimplantation B12-K03 B14-P01B C12-K03 C14-P01B
Antiinflammatory B12-D07 C12-D07
general B14-C03 C14-C03
Antiisomerase B12-G01B5 B14-D09 C12-G01B5 C14-D09
Antikinases B14-D06C C14-D06C
Antiknock additives (fuels) H06-D04
Antileprotic B12-A03 B14-A01B1 C12-A03 C14-A01B1
Antilichen B12-A02B B14-B08 C12-A02B C14-B08
Antiligase B12-G01B6 B14-D10 C12-G01B6 C14-D10
Antilipaemic B12-H03 B14-F06 C12-H03 C14-F06
Antilisteria B14-A01B C14-A01B
Antilyase B12-G01B4 B14-D08 C12-G01B4 C14-D08
Antimalarial B12-B03 B14-A03B C12-B03 C14-A03B
Antimetabolite B12-G01 C12-G01
Antimetabolite general and other B14-L06 C14-L06
Antimetalloprotease B14-D07C1 C14-D07C1
Antimicrobial B12-A01 C12-A01
additives A08-M02
additives in detergents D11-B14
combating resistant bacteria B14-A01X C14-A01X
general B14-A01 C14-A01
Antimitotic B12-G07 B14-H01B C12-G07 C14-H01B
Antimony
alloys M26-B
catalysts N03-H
element B05-A02 C05-A02 E31-M
Antimony compounds B05-A02 C05-A02
inorganic E31-M
inorganic compound pigment G01-A16
organic E05-J
Antimony containing
flame retardant A08-F02
intumescing agent A08-B A08-F02
material for fabric flame proofing F03-C03B
Antimony production M25-G02
Antimony trioxide flame retardant A08-F02
Antimony-containing
Antimuscarinic B14-J02B2 C14-J02B2
Antimycobacterial B12-A03 B12-A04 B14-A01B1 C12-A03 C12-A04 C14-A01B1
Antimycoplasma B12-A01 B14-A01A4 C12-A01 C14-A01A4
Antimycotic B12-A02 B14-A04 C12-A02 C14-A04
Antineoplastic B12-G07 B14-H01 C12-G07 C14-H01
Antioestrogenic B12-G01A B14-D02A3 C12-G01A3 C14-D02A

Antiovulation B12-G01A B14-P01B C12-G01A C14-P01B

Antioxidant for
- cosmetics D08-B11
- edible fats and oils D10-A03
- food D03-H01P
- fuels H06-D01
- lubricants H07-G01
- pharmaceutical and/or veterinary B14-S08 C14-S08
- polymer A08-A06
- veterinary only B14-S08 B14-S12 C14-S08 C14-S12

Antioxidase B14-D05A C14-D05A

Antioxidoreductase B12-G01B1 C12-G01B1
- general and other B14-D05 C14-D05

Antioxygenase B14-D05C C14-D05C

Antipaludial B12-B03 B14-A03B C12-B03 C14-A03B

Antiparasitic (general) B12-B04 B14-B02 C12-B04 C14-B02
- combating resistant parasites B14-B02X C14-B02X

Antiparkinsonian B12-C04 B14-J01A3 C12-C04 C14-J01A3

Antipepsin B12-G01B3 B14-D07C C12-G01B3 C14-D07C

Antipeptide hormone activity B14-D02B C14-D02B

Antipeptide hydrolase B14-D07C C14-D07C

Antiperoxidase B14-D05B C14-D05B

Antiperspirant B12-L01 B14-R03 C12-L01 C14-R03 D08-B09B2

Antiphlogistic B12-D07 B12-D08 B14-C04 C12-D07 C12-D08 C14-C04

Antiphosphodiesterase B14-D07A1 C14-D07A1

Antiphthisic B12-A04 B12-D02 B12-K02 B14-A01B1 C12-A04 C12-D02 C12-K02 C14-A01B1

Antiplaque B14-N06A C14-N06A

Antiplasmin B12-G01 B12-H04 B14-D07C C12-G01 C12-H04 C14-D07C

Antiplumbing agent, photographic G06-H11

Antiprogestational B12-G01A B14-D02A4 C12-G01A4 C14-D02A

Antiproliferative B14-H01B C14-H01B

Antiproliferative (non-cancerous) B14-H05 C14-H05

Antiprotease B14-D07C C14-D07C

Antiprotozoal B12-B01 C12-B01
- Plasmodium B14-A03B C14-A03B
- antiprotozoal general B14-A03 C14-A03

Antipruritic B12-A07 C12-A07

Antipsychotic B14-J01B3 C14-J01B3

Antipyretic B12-D08 B14-C04 C12-D08 C14-C04

Antirads for polymers A08-A02

Antiredeposition D11-B05

Antireducatase B14-D05D C14-D05D

Antireverse transcriptase B14-D06B C14-D06B

Antirhesus factor C12-G01

Antirheumatic B12-D09 B14-C06 C12-D09 C14-C06

Antirickettsia B14-A01A7 C14-A01A7

Antisaccharomyces B12-A02 B14-A04 C12-A02 C14-A04

Antischizophrenic B14-J01B3 C14-J01B3

Antiscorch agents A08-C06 A08-D+

Antiscorpion B12-N04 B14-B04 C12-N04 C14-B04

Antisecretory B12-J02 C12-J02

Antisenility B12-G04A B14-J01A4 C12-G04A C14-J01A4

Antisense DNA B04-E06 C04-E06

Antisense gene therapy B14-S03B C14-S03B

Antiseptic A08-M02 B12-A01 B14-A01 C12-A01 C14-A01

Antiserotoninergic B14-J04 C14-J04

Antislip compositions (non-polymeric) G04-B04

Antislow-release substance of anaphylaxis B12-D02D C12-D02D

Antismoking B12-J05B B14-M01B C12-J05B C14-M01B

Antispasmodic B12-E04 B14-J05D C12-E04 C14-J05D

Antispastic B12-E02 B14-J05D C12-E02 C14-J05D

Antispider B14-B04 C14-B04

Antistatic agent
- for detergents D11-B05
- for electrical L03-H04B
- for fabrics F03-C05
- for polymers A08-S04
- photographic G06-A03

Antistatic compositions (non-polymeric) G04-B03

Antistatic treatment of fabrics/fibres A12-S05S F03-C05

Antisteroid general B14-D02A C14-D02A

Antistreptomyces B12-A02C B14-A01B3 C12-A02C C14-A01B3

Antisynthetase B14-D10 C14-D10

Antitarnishing agents, in detergents D11-B05

Antithrombin B14-D07C C14-D07C

Antitick B12-B04 B14-B04A C12-B04 C14-B04A
Antitransferase B12-G01B2 B14-D06 C12-G01B2 C14-D06
Antitremor B12-C04 B12-E04 B14-J01A3 C12-C04 C12-E04 C14-J01A3
Antitreponema B12-B01 B14-A01A C12-B01 C14-A01A
Antitubercular B12-A04 B14-A01B1 C12-A04 C14-A01B1
Antitumour B12-G07 B14-H01 C12-G07 C14-H01
antibody B04-B04C4 B04-G05 C04-B04C4 C04-G05
Antitussive B12-K01 B14-K01B C12-K01 C14-K01B
Antivenereal B12-A05 B14-N07C C12-A05 C14-N07C
Antiviral B12-A06 C12-A06
adenovirus B14-A02A1 C14-A02A1
arbovirus B14-A02A2 C14-A02A2
combating resistant viruses B14-A02X C14-A02X
coronavirus B14-A02B5 C14-A02B5
DNA viruses general B14-A02A C14-A02A
general B14-A02 C14-A02
hepatitis B virus B14-A02A5 C14-A02A5
herpesvirus B14-A02A3 C14-A02A3
flavivirus B14-A02B9 C14-A02B9
influenza treatment B14-A02B2
Influenza treatment C14-A02B2
myxovirus B14-A02B2 C14-A02B2
papovirus B14-A02A6 C14-A02A6
parvovirus B14-A02A9 C14-A02A9
picornavirus B14-A02B3 C14-A02B3
poxvirus B14-A02A4 C14-A02A4
reovirus B14-A02B7 C14-A02B7
retrovirus B14-A02B1 C14-A02B1
rhabdovirus B14-A02B4 C14-A02B4
RNA viruses general B14-A02B C14-A02B
togavirus B14-A02B6 C14-A02B6
Antiviral (plant) C14-A02B8
Antiyeast B12-A02C B14-A04 C12-A02C C14-A04
Anxiety relieving B12-C10 B14-J01B4 C12-C10 C14-J01B4
Anxiolytic B14-J01B4 C14-J01B4
Apoptotic B14-H03 C14-H03
Apparatus for addition (co)polymerisation A10-B01
catalysts N06-D
chemical process E11 J04-X
combinatorial chemistry E11-K02 B11-C01B C11-C01B
concrete article manufacture L02-D04C
optical glass fibre manufacture L01-F03K
pharmaceutical/agricultural composition production B11-C C11-C
polycondensation A10-D04
recycling waste water D04-A06
Apparel, wearing A12-C+ F04-C
Appetite depressant B12-J02 B14-E12 C12-J02 C14-E12
stimulant B12-J01 B14-E11 C12-J01 C14-E11
Aptamer B04-E07F C04-E07F D05-H12D6A
Aqueous dispersions A07-B
dispersions of acrylic polymers A07-B02
dispersions of natural or condensation polymers (non-rubber) A07-B04
dispersions of other addition polymers A07-B03
dispersions of rubbers A07-B01
paints and coatings A12-B01A G02-A+
solutions of polymers A12-S
Arachnicide B14-B04 C14-B04
Arachnids B04-P01C C04-P01C
Aramids A05-F05
fibres, chemical features of F01-D03
fibres, dyeing/printing F03-F06+
Arc extinguishing gases for contact breakers L03-B04
Arc welding and cutting M23-D01
apparatus M23-D01B4
build-up M23-D01A2
circuits M23-D01B3
flux M23-D01B2
gas M23-D01B2
holders M23-D01B1
methods M23-D01A
nozzles M23-D01B1
seam M23-D01A1
specially adapted for particular articles M23-D01A4
submerged M23-D01A3
torches M23-D01B1
wire feed M23-D01B2
Areas, sports A12-F01A
Argentic, argentous compounds - see Silver
Argon (element) B05-B02C C05-B02C E31-J
Argon compounds inorganic B05-B02C C05-B02C E31-J
organic B05-B02C C05-B02C E05-K
Arm, artificial D09-C01D
polymer use in A12-V02
Armaments A12-T03D+
Armatures A12-E08B
Arming mechanisms K03-A03
Aromatic acids, and derivatives, condensants A01-E11
Aromatic compounds 3 or more rings fused general B08-H C08-H E08-H
spirofused B08-S C08-S
3 rings fused B08-D C08-D E08-D
4 rings fused B08-C C08-C E08-C
5 rings fused B08-B C08-B E08-B
6 or more rings fused B08-A C08-A E08-A

1-2 rings fused B10 C10 E10
Aromatic dicarboxylic acid(s)
production E10-C02C1B
use E10-C02C2B
Aromatic dicarboxylic acid(s) + aromatic diamine(s) based polyamide A05-F05
Aromatic diolefinic
(co)polymers, ester A04-B09
(co)polymers, others A04-B10
monomers, ester A01-C01
monomers, substituted excluding ester A01-C02
monomers, unsubstituted A01-C03
Aromatic hydrocarbon B10-J02 C10-J02 E10-J02B
production by disproportionation E10-J02B1
production by hydrodealkylation E10-J02B1
production by other methods E10-J02B3
purification E10-J02B2
uses E10-J02B4
Aromatic monoolefinic
(co)polymers A04-C+
monomers, substituted A01-D02
monomers, unsubstituted A01-D03
Aromatic oils extenders for polymers A08-P08
Aromatic polyamide fibres A05-F05
chemical features F01-D03B
dyeing/printing F03-F06+
Aromatic polyamides A05-F05
Aromatic polyether excluding phenoxy resin A05-H07
Aromatic sulphonic acid detergents D11-A01B1
Aromatisation of petroleum refinery streams H04-E01
Arrhythmia treatment B12-F01A B14-F01A C12-F01A C14-F01A
Arsenic
catalysts N03-H
element B05-B02B C05-B02B E31-L
glass compositions L01-A07A
Arsenic compounds
inorganic B05-B02B C05-B02B E31-L
organic B05-B01C C05-B01C E05-H
Arsenic production M25-G03
Arsenide
ceramics L02-H05
glass L01-A07
Arteriosclerosis treatment B14-F07 C14-F07
Artherosclerosis treatment B14-F07 C14-F07
Arthropodicide B14-B04 C14-B04
combating resistant arthropods B14-B04X C14-B04X
Arthropods B04-P01C C04-P01C
Artifical - see under the artifact (e.g. for artificial fur - see fur, artificial)
Aryl of metal, catalyst N05-A
Arylated - see Alkylated
Aryl of metal, catalyst N05-A
Arylation E11-F03
Asbestos E31-P04
disposal L02-B07
fibres F01-D09
fillers A08-R02
paper F05-A06+
production L02-B07
products L02-D11
Ascaricide B12-B02 C12-B02
Ascorbic acid B03-F C03-F E03 E07-A02
aseptic environment D09-B03
Aspergillus B04-B02B2 B04-F09A C04-B02B2 C04-F09A
Asphalt A03-C03 B04-D02 C04-D02 H08-B
composition L02-D10
ground covering L02-D09
Assemblies of semiconductor devices - general L04-F
Astatine compounds
inorganic B05-A04 C05-A04 E35-Y
organic B05-A04 C05-A04 E05-Q
Astatine element B05-A04 C05-A04
Asthma treatment B12-D02 B12-K02 B14-K01A C12-D02 C12-K02 C14-K01A
Astringent B12-L01 B14-R03 C12-L01 C14-R03 D08-B09B
Asymetric synthesis E11-J03
Atherosclerosis treatment B12-H03 B14-F07 C12-H03 C14-F07
Atomic engineering - see Nuclear engineering
Atomising J02-C01
apparatus for atomising D09-B01B
Attenuators for optical circuits L03-G02
Audio magnetic tape A12-E08A1
Aural B12-L04 B14-N02 C12-L04 C14-N02
Auric, aurous compounds - see Gold
Autoclaves for concrete article heat treatment L02-D04C
Autoclaving concrete L02-D04
Autoclaving concrete articles L02-D04B
Autoimmune disease treatment B12-D02A B14-G02D C12-D02A C14-G02D
Automated fermentation vessel D05-A03B
Automated yarn spinning system F01-G04
Automatic refinery control equipment H05-J
Automation in processing
involving extruders A09-D02
involving moulding A09-D01
involving other processes A09-D03
Automotive fabrics and products F04-E03
Automotive parts/accessories A12-T+
Autonomic nervous system
active C12-E01
general and other B14-J02 C14-J02
Autonomic nervous system active (general) B12-E01
Auxiliaries for
dyeing/printing fibres F03-F32
paper F05-A06+
weaving apparatus F02-A05
Avermectin B02-A C02-A
Avicide B12-N05 B14-B10 C12-N05 C14-B10
Azamethine dye E25-C
Azaphenothiazine B06-F05 C06-F05 E06-F05
Azepine B07-D06 C07-D06 E07-D06

Azete B07-D01 C07-D01 E07-D01
Azide (inorganic) B05-C03 C05-C03 E31-H
Azide (organic) B10-A16 C10-A16 E10-A16 E10-A16A E10-A16B
Azirine B07-D01 C07-D01 E07-D01
Azo catalysts for polymerisation A02-A02
Azo compounds B10-A16 C10-A16 E10-A16 E10-A16A E10-A16B
  polymerisation catalyst A02-A02
Azo dye A08-E03A+ E21
  couplers E26-A
  dis- and polyazo A08-E03A3
  reactive E21-D
  water insoluble E21-C
  water insoluble, disazo E21-C02
  water insoluble, for dyeing textiles, general F03-F16B
  water insoluble, for polyamide textiles F03-F06B
  water insoluble, for polyester textiles F03-F07B
  water insoluble, monoazo A08-E03A2 E21-C01
  water insoluble, polyazo E21-C03
  water soluble, cationic E21-A
  water soluble, for dyeing textiles, general F03-F16A
  water soluble, for polyamide textiles F03-F06A
  water soluble, for polyester textiles F03-F07A
  water soluble, monoazo A08-E03A1
  water soluble, not cationic E21-B
Azobisisobutyronitrile
  blowing agent A08-B03
  crosslinker for addition / ethylenically unsaturated polymers A08-C09
  crosslinker for other polymers A08-D04
  polymerisation catalyst A02-A02
Azocine B07-D06 C07-D06 E07-D06
Azonine B07-D06 C07-D06 E07-D06
Azoxy B10-A03 C10-A03 E10-A03
  dye see under Azo dye

B

B-Alkylation E11-F10
Baby food D03-S
Baby napkins A12-V03A F04-C01A
  with special shape D09-C03
Bacillus B04-B02B1 B04-F10B1 C04-B02B1 C04-F10B1
Bacitracin B02-B C02-B
Backing layers for magnetic recordings L03-B05K2
Bacteria B04-B02B1 C04-B02B1 D05-H04
  general B04-F10 C04-F10
  gram-negative B04-F10A C04-F10A
  gram-positive B04-F10B C04-F10B
  recombinant D05-H14A1
Bacterial antigens as vaccine B02-V02 C02-V02
Bactericidal additives - see Antifouling additives
Bactericides B12-A01 C12-A01
  for fabrics A12-S05R F03-C02B
  for polymer A08-M02
  for wood F05-B01
  general B14-A01 C14-A01
  photographic G06-H02
  polymer agricultural use A12-W04C
Bacteriophage B04-F11 C04-F11
Bag making, cutting films for A11-A05C
Bags made of polymer A12-P02
Baits B12-N03 B14-B14 C12-N03 C14-B14
Baker's yeast production D05-B04
Bakery products D01-B02
  containers for equipment for transporting D01-A04
  handling of D01-A03
  treatment after cooking D01-A
Baking D01-A06
Balata D03-K01
Bale breaking A03-B
Balls (sports equipment) F01-F03
Bandages A12-V03A B12-M02D C12-M02D D09-C
  textiles for use as F04-E04
Bands of textile F02-E02
Bar mills (metal rolling) M21-A03A
Barium catalysts N01-B
Barium compounds B05-A01B C05-A01B
  inorganic E34-D03D
  organic E05-B01
Barium ferrite magnetic compositions L03-B02B1
Barium production M25-G05
Barium sulphate filler/ reinforcing agents A08-R G01-A01
Bark B04-A07D3 B04-A09G C04-A07D3 C04-A09G
  extracts B04-A10H C04-A10H
Barrier creams A12-V04C D09-E03
Barrier layers, photographic G06-A08
Bars E12-A09B
Basic dyes for dyeing/ printing fibres F03-F22
Basic oxygen furnaces (steelmaking) M24-B02C
Basic refractories L02-E04
Basidiomycetes cultivation D05-A04C
Basins A12-R02
Baths A12-R02
Bats (sports equipment) A12-F01B
Batter
  mixing D01-A05
  products D01-B02F
  transporting D01-A03
Batteries A12-E06+ L03-E
  carriers, plates L03-E01D5
  connectors L03-E01D4
  component production L03-E08+
  recharging L03-E09
  repairing L03-E10
Battery packs L03-E01D6
Battery electrodes
  for alkaline cells L03-E01B5
  graphite and carbon L03-E01B3
  of Ni and Cd L03-E01B4
  of silver (oxide) L03-E01B7
  of zinc (oxide) L03-E01B6
  organic materials L03-E01B9
  other inorganic materials L03-E01B8
  polymer use in production A12-E06A L03-E08B
Battings (textile) F02-C01
Batts F01-E09A
Bead polymerisation - see Suspension polymerisation

Beaming (textile) F02-A01
Beans
  cutting D03-J09
  peeling D03-J07
  washing D03-J08
Bearings, bearing surfaces A12-H03
Beating in paper making F05-A03
Bed linen A12-D01
  of fabric F04-D01
Beds, bedding A12-D01
Beef D02-A03B
Beehives A12-W04+
Beer D05-B02
Beet residue, animal feeds from D03-G04
Belladonna alkaloid B04-A01 C04-A01
Belts
  clothing A12-C03 F04-C04
  conveyor A12-H01 F04-E07
  paper making F04-E05A
  safety, vehicle F04-E03B
  vehicle safety A12-T04E
Bending
  glass L01-G10
  metal tubes M21-B04
  polymer films, sheets, tubes, pipes A11-B08+
  sheet metal M21-E01
Benzazepine B06-D04 C06-D04 E06-D04
Benzazocine B06-D04 C06-D04 E06-D04
Benzene disulphonic acids derived polyesters A05-E
Benzimidazole B06-D05 C06-D05 E06-D05
  condensants A01-E06
  polymers A05-J02
Benzisothiazole B06-F01 C06-F01 E06-F01
Benzisoxazole B06-E01 C06-E01 E06-E01
Benzo(b)furan B06-A01 C06-A01 E06-A01
Benzo(c)furan B06-A02 C06-A02 E06-A02
Benzocinnoline B06-D16 C06-D16 E06-D16
Benzodiazepine B06-D07 C06-D07 E06-D07
Benzodiazocine B06-D07 C06-D07 E06-D07
Benzoguanamine (condensant) A01-E01 E07-D13
Benzoguanamine - formaldehyde resin A05-B
Benzoins
  crosslinkers for ethylenically unsaturated polymers A08-C
  crosslinkers for other polymers A08-D
  photopolymerisation catalysts A02-A09
Benzophenones
  crosslinkers for ethylenically unsaturated polymers A08-C
  crosslinkers for other polymers A08-D
  photopolymerisation catalysts A02-A09
Benzopteridine B06-D17 C06-D17 E06-D17
1-Benzopyran B06-A01 C06-A01 E06-A01
Benzothiadiazine B06-F03 C06-F03 E06-F03
Benzothiazepine B06-F03 C06-F03 E06-F03
Benzothiazine B06-F02 C06-F02 E06-F02
Benzothiazocine B06-F03 C06-F03 E06-F03
Benzothiazole B06-F01 C06-F01 E06-F01
Benzothiophene B06-B01 C06-B01 E06-B01
Benzotriazole B06-D08 C06-D08 E06-D08
Benzoxathiazine B06-G C06-G E06-G
Benzoxathiazole B06-G C06-G E06-G
Benzoxathiin B06-C C06-C E06-C
Benzoxathiole B06-C C06-C E06-C
Benzoxazepine B06-E03 C06-E03 E06-E03
Benzoxazine B06-E02 C06-E02 E06-E02
Benzoxazocine B06-E03 C06-E03 E06-E03
Benzoxazole B06-E01 C06-E01 E06-E01
Benzoyl peroxide E10-A04
  crosslinker for ethylenically unsaturated polymers A08-C05
  crosslinker for other polymers A08-D
  redox polymerisation catalyst system component A02-A03
  sole polymerisation catalyst species A02-A01
Berkelium compounds B05-A04 C05-A04
  inorganic E35-R
  organic E05-Q
Beryllium
  alloys M26-B11
  catalysts N01-B
Beryllium compounds B05-A01B C05-A01B
  inorganic E34-A
  organic E05-B01
Beryllium production M25-G06
Beta alumina separator tubes L03-E04A
Beta-adrenergic blocker B12-E06B B14-J02D2 C12-E06B C14-J02D2
Beverages (see also Food) B12-J01 B14-E11 C12-J01 C14-E11
  alcoholic D05-E
  alcoholic treatment of D05-F
  non-alcoholic D03-H01
Biaxial drawing of film A11-B02A A12-S06B
Bicarbonate blowing agent A08-B02
Bicarbonates - inorganic B05-C04 C05-C04 E31-N05
Bichromated gelatin, photographic G06-F03+
Bicomponent filaments A12-S05B F01-E01+
Biguanide B10-A17 C10-A17 E10-A17 E10-A17A E10-A17B
Biguanide polymers A05-J11
Bile active B12-G02 B14-N12 C12-G02 C14-N12
Bile extracts B04-B04H C04-B04H

Bilharzia treatment B14-B03B C14-B03B

Binders (see also Adhesive)
(meth)acrylamide (co)polymer, use in A04-D04A1
(meth)acrylate (co)polymer, use in A04-F06E6
(meth)acrylic acid/ anhydride copolymer, use in A04-F04B
compositions A12-A05+
electrophotographic A12-L05D
epoxy resins, use in A05-A01E3
for concrete L02-C
for core moulds A12-A02
for earth consolidation A12-A02
for food D03-H01R
for foundry moulding (inorganic) M22-A02
for foundry moulding (organic) M22-A03
for magnetic layers and dispersions L03-B05D4
for non-woven fabrics A12-B02B F02-C02B1
for oil wells A12-W10C
for photography A12-L01 G06-A06
from petroleum products H08-E08
phenol-formaldehyde resin, use in A05-C03A
phenolic resins, use in A05-C01B1
polyethylene, use in A04-G02E1
PVA, use in A10-E09B1
PVC, use in A04-E02E2
saturated polyester, use in A05-E01D1
silicon polymer, use in A06-A00E1

Binding enzymes to carriers D05-A01C2
to polymeric carriers A12-W11L

Biochip B11-C08E6 C11-C08E6

Biocides B12-A01 B14-A01 C12-A01 C14-A01 D09-A01
for fuels H06-D08
for polymer A08-M02

Biodegradability of polymers A09-A07

Biodegradable detergents (or additive) D11-D06

Biodiesel H06-B04A

Bioelectronics B11-C04K C11-C04K

Bioflavanoids B03-K C03-K

Biofuels H06-B07

Bioinformatics B11-C08F+ C11-C08F+

Bioleaching D05-K

Biological gas separation methods J01-E03H

Biological procedures in tests B11-C08E C11-C08E

Biological repellents for fabrics A12-S05R F03-C02B

Biological warfare agents protection against K02-A02

Biological water treatment D04-A01J J01-D07

Biomass B04-D03 C04-D03

Biomass conversion E11-I

Biomass production by fermentation D05-C13

Bioremediation using microrganisms M25-F02

Biorientation - see Biaxial drawing

Biosimilars B04-R C04-R

Biosensor J04-B05

Biosynthesis B11-A C11-A D05-A D05-C
using algae B11-A03 C11-A03
on hydrocarbon substrates H04-E02
using enzymes B11-A02 C11-A02
using microorganisms B11-A01 C11-A01

Bird killing B12-N05 B14-B10 C12-N05 C14-B10

Bird repellents B12-N05 B14-B13 C12-N05 C14-B13

Birth control devices A12-V03B1 B12-K03 B14-P01 C12-K03 C14-P01

Bis(hydroxyethyl)-terephthalate A05-E04A

Biscuits D01-B02C

Bishaloformates +diamine based polyurethane A05-G
condensants A01-E12

Bismaleimide (co)polymers by addition A04-B11
monomer A01-C06

Bismaleimide-amino polymer - see Polyamino-bismaleimide

Bismuth alloys M26-B
catalysts N03-H

Bismuth compounds B05-A02 C05-A02
inorganic E35-M
organic E05-J

Bismuth production M25-G07

Bisphenol A E10-E02D4
condensant A01-E13
diallyl ether monomer A01-C02
diglycidyl ether A05-A02
epihalohydrin polyethers A05-H06
epoxy resins based on A05-A02
phenoxy resins based on A05-H06

Bisquaternary ammonium compounds B10-A21 C10-A21 E10-A21

Bitumastic compositions L02-D10

Bitumen A03-C03 B04-D02 C04-D02 H08-B
in polymeric blend A07-A01A

Bituminous plastics A03-C03

Black and white silver halide
bleach-fixing G06-G02
developing G06-G01
fixing G06-G02
other processes G06-G04
stabilisation G06-G03

Blades
aircraft propeller A12-T04
fan A12-H
for cutting plastics A11-A05+
razor A12-V04
turbine A12-H

Blankets
bedding A12-D01 F04-D01
electric A12-D01 A12-E10
non-woven F02-C01
printing A12-W07F

Blast furnace pig manufacture M24-A02
by applying additives M24-A02A
making slags of special composition M24-A02B

Blasting K03-B
compositions A12-T03A
gas generation for K04-C

Blasting-caps K04-B01

Bleach activators D11-B01D1
booster D11-B01E
catalysts for D11-B01D2

Bleaching
agents (optical), detergent D11-B01
agents (optical), inorganic A08-E02
agents (optical), organic A08-E03C
apparatus A11-A01B
black and white (photographic) G06-G02
catalysts for dye bleaching G06-C03
colour (photographic) G06-G11
composition (non-photographic) G04-B08
enzymatic D11-B01D3
fabrics F03-B01
hair D08-B06
paper pulp F05-A02B
process A11-A01B
using specific compositions A11-A01A
wood F05-B

Blending (see also Mixing)
equipment A11-A03A
polymer compositions A11-A03+
yarn processes F01-F

Blends of polymers (see also Mixtures) A07-A+
containing addition (co)polymers only A07-A02+
containing addition and condensation polymers A07-A04+
containing condensation polymers only A07-A03+
containing natural polymers A07-A01+
Blinds (for windows etc.) A12-R02
Blister packs A12-P06C
Blixing, photographic G06-G02
Block copolymerisation A10-C02
Blocked polyisocyanates crosslinkers A08-D04A
Blocking agents
for condensants/monomers A02-C
for crosslinkers, for ethylenically unsaturated and addition (co)polymers A08-C06
for crosslinkers, for other polymers A08-D+
Blood B04-B04D
C04-B04D
Albumin (serum) B04-B04D2
C04-B04D2
bags A12-V03B
blood proteins B04-B04D2
C04-B04D2
dialysis J01-C03B1
filtration J01-F04X2
Haemoglobin B04-B04D2
C04-B04D2
handling apparatus A12-V03B
parasite B04-B02B
C04-B02B
parasite (microbial) B04-F01
C04-F01
parasite (nonmicrobial) B04-P01
C04-P01
plasma B04-B04D4
C04-B04D4
serum B04-B04D4
C04-B04D4
substitutes B12-H06
B14-F11
C12-H06
C14-F11
sugar increasing B14-F10
C14-F10
sugar lowering B12-H05
B14-F09
C12-H05
C14-F09
vessels, artificial A12-V02
D09-C01B
whole blood B04-B04D5
C04-B04D5
Blood cells B04-F04
C04-F04
Red blood cells B04-F04A
C04-F04A
White blood cells B04-F04B
C04-F04B
B-lymphocytes B04-F04B1B
C04-F04B1B
Dendritic cells B04-F04B2A
C04-F04B2A
Lymphocytes B04-F04B1
C04-F04B1
Macrophages B04-F04B2B
C04-F04B2B
Neutrophil B04-F04B2C
C04-F04B2C
Other white blood cells B04-F04B2
C04-F04B2
Others B04-F04B2D
C04-F04B2D
T-lymphocytes B04-F04B1A
C04-F04B1A
abnormal number or ratio B14-F03
C14-F03
Blossom retarding (plants) B12-P03
C12-P03
C14-U01B
Blossom stimulating (plants) B12-P03
C12-P03
C14-U01B
Blow moulding A11-B10
Blowing
melt F01-C07A
Blowing agents A08-B+
others A08-B
pore formers A08-B04
pressurised gases A08-B04
releasing carbon dioxide A08-B02
releasing nitrogen A08-B03
soluble materials A08-B04
volatile materials A08-B04+
Blowing glass L01-E03
Blowing of tubular films A11-B07A
A12-S06A
Blue sensitive (electro)-photographic layers G06-C14B
Blueing agents D11-B01C
BMC A12-S
Board games A12-F01
Boards A12-A04+
cardboard F05-A06+
chipboard A12-A04B
F05-A07
decorative A12-A04A
fibreboard A12-A04B
F05-A07
gypsum A12-R01A
L02-D07A
particleboard A12-A04B
F05-A07
plywood A12-A04C
F05-B
Bobbin handling, in winding (textile) F01-H03C
Bobbin lace F02-E01
Bobbins F01-H03A
Body joints, artificial A12-V02
D09-C01D
Body parts preservation (chemical) D09-A01
D09-A03
Body wash D08-B09A2
Liquid D08-B09A2A
Solid D08-B09A2B
Boil-in-bag food packs A12-D03
Boiler feed, anticorrosion additives A12-W11J
D04-A03
Boiling apparatus J05-A
Boiling pans (sugar) D06-D
Bolts A12-H12
Bombs K03-A01
Bonding of contacts on electrical components L03-A01B6
Bonding processing in semiconductor manufacture - general L04-C17
Bonding, heat sealing A11-C01+
agents, aids A08-M01+
agents, aids, acids, metal compound A08-M01C
agents, aids, polymeric A08-M01B
agents, aids, silicon compounds A08-M01D
fibrous webs to give non-woven fabric A12-B02B
F02-C02B+
using adhesive (for specific goods) A11-C01C
using adhesive (general use) A11-C01D
Bone
disorder treatment B12-J08
B14-N01
C12-J08
C14-N01
Bone (including marrow) B04-B04E
C04-B04E
artificial D09-C01D
Bone Morphogenetic Protein B04-H06L
C04-H06L
Book binding A12-W07+
Boots - see Footwear
Borate containing glass compositions L01-A06
Borazoles E05-C
E05-C01
E05-C02
condensants/monomers A01-A01
Bordetella B04-F10A1
C04-F10A1
Boride containing hard alloys M26-B12
Borides
abrasive L02-F03
ceramic L02-H02B1
Boriding metals M13-D
using gases M13-D03B
using liquids M13-D02B
using solids M13-D01B
Boron
catalysts N01-D
N01-D01
element B05-B02C
C05-B02C
E31-Q
Boron-alkylation E11-F10
Boron compounds
condensants/monomers A01-A01
fillers/reinforcing agents A08-R05
heat stabiliser for polymers A08-A04A

inorganic B05-B02C C05-B02C E31-Q
organic B05-B01A C05-B01A E05-C E05-C01 E05-C02

Boron containing compound
crosslinkers for ethylenically unsaturated polymers A08-C09
for other polymers A08-D05

Boron containing compounds

Boron in polymers
by addition polymerisation A04-A
by condensation polymerisation A06-C
by polymer modification A10-E22

Boron trifluoride E31-Q
crosslinker for ethylenically unsaturated polymers A08-C09
crosslinker for other polymers A08-D05
polymerisation catalyst A02-A04

Boronising, using solid M13-D01B

Borosilicate containing glass compositions L01-A06

Borrelia B04-F10A2 C04-F10A2

Bottles
glass, coating of A12-B05 L01-G04A
plastic A12-P06A

Bovine Spongiforme Encephalopathy treatment B14-N16A C14-N16A

Bowel disease treatment B14-E10C C14-E10C
Inflammatory bowel disorder B14-E10C1 C14-E10C1

Boxes A12-P06B

Bradykinin B04-C01B B04-J01 C04-C01B C04-J01

Braid lace F02-E01

Braiding F02-E01

Braiding machines F02-E01

Brake materials (polymer use) A12-H10

Bran B04-A07D B04-A09F C04-A07D C04-A09F
extracts B04-A10G C04-A10G

Brazing M23-A
apparatus M23-A03
fluxes M23-A02
metal compositions M23-A01
methods M23-A04
printed circuits (including soldering) L03-H04E6

Bread D01-B02A

Break detection in winding F01-H03B

Break spinning F01-G05

Breathing apparatus K02-B

Brewer's yeast production D05-B04

Brewing D05-B
devices D05-J
Bridged carbocyclic metallocenes E05-V02

Bridge construction A12-R

Brighteners for metal electroplating M11-B01

Brighteners for paper, cardboard F05-A06D

Brighteners, fluorescent (textile) E24-A E24-A04
benzoxazole type E24-A02 E24-A04B
coumarin type E24-A02 E24-A04B
other E24-A03 E24-A04C
stilbene type E24-A01 E24-A04A

Brighteners, optical
inorganic A08-E02
organic A08-E03C

Brighteners, photographic G06-H09
coumarin type G06-H09C
oxazole type G06-H09A
stilbene type G06-H09B
thiazole type G06-H09D

Brighteners, polymeric plating bath additives A12-W12E

Brightening metals chemically M14-B

Briquettes (coal) H09-F

Briquetting
coal H09-F
ferrous ore M24-A01A
non-ferrous ore M25-A02

Bristles A12-S05E F01-E05

Brominated/ bromination of polymers A10-E04A

Bromine catalysts N04-D

Bromine or derivatives (see also Halogen or derivatives)

Bromo - (see also Halo-)

Bromostyrenes
(co)polymers A04-C
monomer A01-D02

Bromosulphonated/ bromosulphonation of polymers A10-E12B

Bronchitis treatment B12-K06 B14-K01 C12-K06 C14-K01

Bronchoconstrictors B14-K01C C14-K01C

Bronchodilators B12-K02 B14-K01D C12-K02 C14-K01D

Broncholytics B12-K02 C12-K02

Bronchospasmolytics B12-E02 B12-K02 C12-E02 C12-K02

Brooms A12-D03

Brushes
electrical A12-E08B
fibre/filaments use in F04-G
hair A12-V04A
household A12-D03
paint A12-D03
shaving A12-V04
tooth A12-V04B

Bryophytes B04-A08A C04-A08A

BSE treatment B14-N16A C14-N16A

Bubbles, magnetic L03-B06

Buckets A12-D04

Buckminsterfullerene B05-U02 E05-U02 L02-H04B

Buckyballs L02-H04B

Buffers (polymerisation control) A02-D01

Build-up welding (electric arc) M23-D01A2

Builders for detergents D11-B03

Building A12-R+
board L02-D07
fittings/fixtures A12-R02+
glass in L01-L01
polyethylene, use in A04-G02E4
polyurethane foam, use in A12-S02F
PVC use in A04-E02E1
unsaturated polyester, use in A05-D02E1

Bulimia B14-E11D C14-E11D

Bulk colouring
agents A08-E+
processes A11-A01B
with specific materials A11-A01A

Bulk dyeing before fibre formation F03-F30

Bulk graft copolymerisation A10-C03C

Bulk moulding compounds A12-S

Bulk polymerisation A10-B02

Bulked fibres A12-S05C F01-E01A F01-E04

Bulking of fibres F01-H04

Bulking polymeric films/fibres A11-B02D

Bumpers, vehicle A12-T04D

Bunt treatment C14-A06S

Buoys A12-T

Buried layer formation in semiconductors L04-C10G

Burn treatment B12-A07 B14-N17A C12-A07 C14-N17A

Burr removal on
  metal castings M22-G03H
  polymers A11-A05B
Butadiene E10-J02C
  (co)polymers in polymeric blends A07-A+
  copolymer with acrylonitrile A04-B04
  copolymer with styrene A04-B03+
  copolymer with styrene and acrylonitrile (ABS) A04-C03
  copolymers (other) A04-B05
  diepoxide A05-A
    E07-A03A
  homopolymers A04-B02+
  homopolymers production A04-B02A
  monomer A01-C05
Butane diol E10-E04H1
  condensant A01-E14
  diglycidyl ether A05-A03
    E07-A03B
Butane diol + isocyanate based polyurethane A05-G04
Butene-1 E10-J02C
  copolymer with ethylene A04-G06+
  copolymer with propylene A04-G09
  copolymers, other A04-G04
  homopolymer A04-G04
  monomer A01-D13
Butt welding, resistance M23-D02A1
Butter D03-B
    D03-B12
Butter substitutes D03-C
Button holes for garments F04-C04
Button holes, cutting fabric for F04-F01
Button holes, sewing of F02-F01A1
Buttons A12-C03
    F04-C04
Butyl lithium polymerisation catalyst (excluding with transition metal (compounds)) A02-A07B
Butyl rubber A04-G05A
Butylated melamine-formaldehyde resin A10-E08C
Butylene - see Butene-1

C

CAB A03-A03
Cabinets
  as furniture A12-D01
  for electrical goods A12-E05
Cable drilling H01-B04
Cables
  optical, coatings G02-A05H
Cables (see also Electrical) A12-P07
    F04-A
    L03-A01B1
  coatings on polymeric A12-B07C
  foam use in A12-S04E
  insulation A12-E02+
  joints L03-A01B2
  optical A12-L03A
  optical glass fibre L01-F03L
  textile F04-A
Cabling of yarn F01-H01
Cacheixia treatment B14-E11B
    C14-E11B
Cadmium
  alloys M26-B07
  catalysts N03-F02
  electrodes for batteries L03-E01B4
Cadmium compounds B05-A03B
    C05-A03B
  as pigment or filler G01-A03
  inorganic E35-D
  organic E05-M
    E05-M03A
Cadmium production M25-G09
Cadmium selenide L04-A03B
Cadmium sulphide L04-A03A
Caesium see Cesium
Caffeine B04-A06
    C04-A06
Cake D01-B02B
Calciferol B03-G
    C03-G
Calcitonin B04-B02D3
    B04-J04A
    C04-B02D3
    C04-J04A
Calcium agonists B14-F02A
    C14-F02A
Calcium alloys M26-B
Calcium aluminate cements manufacture L02-C07
Calcium aluminate sulphate trihydrate cements manufacture L02-C05
Calcium antagonists B14-F02B2
    C14-F02B2
Calcium carbonate E34-D03A
Calcium carbonate filler/reinforcing agent A08-R
    G01-A01
Calcium catalysts N01-B
Calcium compounds B05-A01B
    C05-A01B
  inorganic E34-D
  organic E05-B01
Calcium entry blockers B12-F05B
    B12-G01
    B14-F02B2
    C12-F05B
    C12-G01
    C14-F02B2
Calcium halides E34-D02
Calcium hydroxide E34-D01
Calcium nitrate E34-D03
Calcium oxide E34-D01
    L02-B01
Calcium production M25-G05
Calcium sulfate E34-D02
  cements L02-C05
Calcium sulfites E34-D03
Calcivirus B14-A02B0
    C14-A02B0
Calendering, calenders of fabrics A11-B03
    F03-A01
Calenders, for papermaking machines F05-A05
Californium compounds B05-A04
    C05-A04
  inorganic E35-R
  organic E05-Q
Calmant B12-C10
    B14-J01B4
    C12-C10
    C14-J01B4
Cameras A12-L02A
Camouflage textiles F04-E02
Camping equipment A12-F01
Cancer cells B04-F02A
    C04-F02A
Cancer diagnoses B12-K04A1
    C12-K04A1
Cancer treatments B14-H01
    C14-H01
  Dermatological cancers B14-H01C
    C14-H01C
  Endocrine cancers B14-H01D
    C14-H01D
  Bladder cancers B14-H01F6
    C14-H01F6
  Breast cancers B14-H01D1
    C14-H01D1
  Thyroid cancers B14-H01D2
    C14-H01D2
  Gastrointestinal cancers B14-H01E
    C14-H01E
  Colon cancers B14-H01E1
    C14-H01E1
  Oesophageal cancers B14-H01E2
    C14-H01E2
  Gall bladder cancers B14-H01E3
    C14-H01E3

Intestinal cancers B14-H01E4
C14-H01E4
Hepatic cancers B14-H01E5
C14-H01E5
Pancreatic cancers B14-H01E6
C14-H01E6
Rectal cancers B14-H01E7
C14-H01E7
Stomach cancers B14-H01E8
C14-H01E8
Genitourinary cancers B14-H01F
C14-H01F
Cervical/uterine cancers B14-H01F1
C14-H01F1
Kidney cancers B14-H01F2
C14-H01F2
Ovarian cancers B14-H01F3
C14-H01F3
Prostate cancers B14-H01F4
C14-H01F4
Testicular cancers B14-H01F5
C14-H01F5
Immunological cancers B14-H01G
C14-H01G
Hodgkin's lymphoma B14-H01G1
C14-H01G1
Non-Hodgkin's lymphoma B14-H01G2
C14-H01G2
Musculoskeletal cancers B14-H01H
C14-H01H
Osteocancers B14-H01H1
C14-H01H1
Sarcoma B12-G07
C12-G07
B14-H01H2
C14-H01H2
Neurological cancers B14-H01J
C14-H01J
Brain tumours B14-H01J1
C14-H01J1
Oral and respiratory cancers B14-H01K
C14-H01K
Buccal cavity and pharynx cancers B14-H01K1
C14-H01K1
Larynx cancers B14-H01K2
C14-H01K2
Lung cancers B14-H01K3
C14-H01K3
Other cancers B14-H01L
C14-H01L
Multiple myelomas B14-H01L1
C14-H01L1
Candida B04-B02B2
B04-F09
C04-B02B2
C04-F09
Candles D10-B03
disinfection/deodorisation of air D09-B02
Candy B03-E10+
C03-E10+
Chewy D03-E10B+
Hard D03-E10A+
Cannabinoid agonist B14-L01B
C14-L01B
Cannabinoid antagonist B14-L06B
C14-L06B
Canning of foodstuffs D03-H02F
Cap spinning F01-G02
Capacitive pastes, thick film L03-B03C
Capacitive touch panel L03-G05I
Capacitors
electrical, general A12-E07B
L03-B03
electrolytic L03-B03A
inorganic L03-B03G
monolithic L03-B03B
multilayer L03-B03J
thick film L03-B03C
Capillary permeability increasing B12-H02
B14-F04
C12-H02
C14-F04
Capped sequences
Nucleic acids B04-E01X
C04-E01X
D05-H12H
Oligonucleotides B04-B03F1
Caprolactam B07-D06
C07-D06
E07-D06
condensant A01-E04
polyamide (derived from) A05-F03
Caprolactone E07-A03C
condensant A01-E12
A01-E14
polyester (derived from) A05-E02
Caps (including safety) for bottles etc. A12-P03
B11-C06A
C11-C06A
Capsules (not microcapsules) B12-M11C
C12-M11C
detergent use D11-D02B
Car parts and accessories A12-T04+
Carbamates inorganic (including thio) E31-H
removal from water D04-B07C
Carbamic acid or ester (organic) E10-A12C1
Carbamic acid, or ester (organic) B10-A12C
C10-A12C
E10-A12C
E10-A12C2
Carbamides E10-A13B
E10-A13B1
E10-A13B2
Carbapenems C02-P
C06-D04
Carbazoles B06-D13
C06-D13
E06-D13
Carbides E31-N05
L02-H02
abrasive L02-F03
cemented L02-J01B
ceramic L02-H02A
hard alloys M26-B12
Carbodiimide B10-A20
C10-A20
E10-A20
E10-A20A
E10-A20B
Carbohydrate (excluding sucrose) B04-D01
C04-D01
D06-G
D06-H
as detergent additive D11-B10
Carbolines B06-D15
C06-D15
E06-D15
Carbomycin B02-C01
C02-C01
Carbon and graphite
general L02-H04
conductors L03-A02B
Carbon black B05-C06
C05-C06
E31-N
electroconductive filler A08-R03
filler/reinforcing agents A08-R03
G01-A11
pigments A08-E02
G01-A11
product from petroleum H08-E01
production
production from petroleum H04-B01
Carbon catalysts N04-A
supporting Pd or Pt N02-F01
Carbon ceramics L02-H04
Carbon chain expansion/ contraction process B11-C01
C11-C01
E11-B
oligomer-/telomerisation E11-F01
addition of CO(2) E11-F02
other chain extension E11-F03
contraction E11-G02
Carbon compounds (inorganic) E31-N05
Carbon dioxide B05-C04
C05-C04
E31-N05
Carbon disulphide B05-C04
C05-C04
E31-N05
Carbon electroconductivity agents
A08-M09A1
Carbon electrodes for batteries L03-E01B3
Carbon fibre--
F01-D09A
L02-H04A
dyeing F03-F12
graphitisation E31-N02
printing F03-F12
production E31-N01
reinforcing agents A08-R03A
use E31-N04E
Carbon fillers A08-R03+
G01-A11
Carbon isotopes B05-A04C
C05-A04C
Carbon modification E31-N02

Carbon monoxide B05-C08
C05-C08
E31-N05B1
complex catalyst N05-B
copolymer by addition A04-A05
hydrogen mixture E31-A
monomer/condensant A01-A
Carbon nanotubes L02-H04B
B05-U03
C05-U03
B05-U04
C05-U04
E05-U03
E05-U04
double-walled E05-U03B
multiple-walled E05-U03C
single-walled E05-U03A
Carbon paper A12-D05A
G05-D
Carbon production (general) E31-N03
active E31-N03C
diamond E31-N03A
graphite E31-N05B
Inert E31-N05D
Carbon refractories L02-E07
Carbon sorption (petroleum processing) H02-B03
Carbon tetrabromide E10-H02D
E10-H03D2
E10-H04D2
flame retardant A08-F04C
Carbon thermal conductivity agents A08-M09C1
Carbon type fillers A08-R03+
G01-A11
Carbon use E31-N04
Carbon, activated J01-E02B3
J01-E03C3
Carbon, element B05-C06
C05-C06
E31-N
L02-H04
Carbon-less paper A12-D05A
G05-D
Carbonates, as detergent additive D11-B11
D11-B11C
Carbonates, inorganic (general) B05-C04
C05-C04
E31-N05
Carbonic acid E31-N05C
B10-A11B
C10-A11B
Carbonic acid esters B10-A11B
C10-A11B
E10-A11B
E10-A11B1
E10-A11B2
Carbonic anhydrase inhibitor B12-G01B4
B14-D08
C12-G01B4
C14-D08
Carbonisation, carbonised polymers A10-E05B
Carbonised lace F02-E01
Carbonising rags F01-B01
Carbonitriding, using solid M13-D01B
Carbonium compounds B10-A01
C10-A01
E10-A01
Carbonylation reaction
hydroformylation E11-F02A
of olefinic bonds E11-F02A
Carboxylation reaction (addition of CO2) E11-F02B
Carbonyl complex catalysts N05-B
Carbonyl halides
inorganic B05-C07
C05-C07
E31-N05
Carbonyl of metal - see metal
Carbopols ® A04-A03
A04-F04+
Carboranes E05-C
E05-C01
E05-C02
condensants/monomers A01-A01
Carboxy group formation/ formed in polymer (excluding hydrolysis) A10-E23
Carboxyalkyl starch A10-E08C
B04-C02B
C04-C02B
Carboxylase inhibitor B14-D08
C14-D08
Carboxylated acrylonitrile-butadiene rubber A04-B05
A04-D03
A04-F04
Carboxylated styrene- butadiene rubber A04-B05
A04-C04+
A04-F04+
Carboxylic acid amides B10-D03
C10-D03
E10-D03
aliphatic, monoolefinic (co)polymer uses A04-D04A+
aliphatic, monoolefinic (co)polymers A04-D04+
aliphatic, monoolefinic monomer A01-D06
condensant A01-E03
Carboxylic acid amides, thio B10-D02
C10-D02
E10-D02
Carboxylic acid anhydrides B10-A25
C10-A25
E10-A25
E10-A25A1
E10-A25A2
condensant, alicyclic A01-E12
condensant, aliphatic A01-E12
condensant, aromatic A01-E11
Carboxylic acid anhydrides, monoolefinic
(co)polymer (acrylic) A04-F04
(co)polymer (non-acrylic) A04-F05
monomer A01-D08
Carboxylic acid detergents D11-A01A1
Carboxylic acid esters B10-G02
C10-G02
E10-G02
plasticiser A08-P +
Carboxylic acid esters, monoolefinic B10-G02
C10-G02
E10-G02
aliphatic: (co)polymer (acrylic) - (see also acrylate, alkyl) A04-F06+
aliphatic: (co)polymer (non-acrylic) A04-F07
aliphatic: monomer A01-D10
Carboxylic acid esters, thio B10-G01
C10-G01
E10-G01
Carboxylic acid halides B10-A25
C10-A25
E10-A25
E10-A25B1
E10-A25B2
condensant, alicyclic A01-E12
condensant, aliphatic A01-E12
condensant, aromatic A01-E11
Carboxylic acid halides, monoolefinic
(co)polymers A04-E
monomer A01-D12
Carboxylic acid imides B10-A24
C10-A24
E10-A24
E10-A24A
E10-A24B
Carboxylic acid, alicyclic B10-C04A
C10-C04A
E10-C04A
condensant A01-E12
Carboxylic acid, aliphatic B10-C04
C10-C04
E10-C04
condensant A01-E12
containing hydroxy, aldehyde or ketone B10-C04D
C10-C04D
E10-C04D
General acyclic monocarboxylic acid B10-C04E
C10-C04E
E10-C04E
Substituted acyclic monocarboxylic acid B10-C04E1
C10-C04E1
Other saturated monocarboxylic acid B10-C04E6
C10-C04E6
Other unsaturated monocarboxylic acid B10-C04E4
C10-C04E4
Carboxylic acid, aromatic B10-C
C10-C
E10-C
condensant A01-E11
Carboxylic acid, di- see Polycarboxylic acid
Carboxylic acid, mono-unsaturated (non-acrylic) E10-C04E
(co)polymers A04-F05
monomer A01-D08

Carboxylic acid, monoolefinic (acrylic) E10-C04G
(co)monomer A01-D08
polymer A04-F04+
polymer adhesives/coatings A04-F04B
polymer preparation/ composition A04-F04A

Carboxylic acid, poly - see Polycarboxylic acid

Carboxylic acid, thio B10-C01 C10-C01 E10-C01

Carboxylic amide detergents D11-A01A3

Carboxylic ester detergents D11-A01A2

Carboxymethyl cellulose A03-A04+ B04-C02A2 C04-C02A2 D06-H
uses A03-A04A

Carboxyvinyl polymer - see Carbopols

Carburettors A12-T04C

Carburising metal M13-D
using gas M13-D03A
using liquid M13-D02A
using solid M13-D01A

Carcinogen B14-H02 C14-H02

Carcinoma B04-F02A C04-F02A

Cardboard F05-A06+
adding (in)organic compounds F05-A06D
adding polymers or resins to F05-A06C
applying coatings to F05-A06B
coatings on A12-B03+
corrugated F05-A06A
multiply materials F05-A06A
production A11-B09B F05-A04+ F05-A06

Cardiac agents B12-F01 B14-F01 C12-F01 C14-F01

Cardiac arrest treatment B12-F01B B14-F01B C12-F01B C14-F01B

Cardiac depressant B14-F01C C14-F01C

Cardiac disorder diagnoses B12-K04A2 B12-K04G2B C12-K04A2 C12-K04G2B

Cardiac insufficiency treatment B12-F01B B14-F01B C12-F01B C14-F01B

Cardiac stimulants B12-F01B B14-F01B C12-F01B C14-F01B

Carding yarn processes F01-F01

Cardioactive B12-F01 B14-F01 C12-F01 C14-F01

Cardiotonic B12-F01B B14-F01B C12-F01B C14-F01B

Cardiovascular B12-E01 B12-F01 B14-F01 B14-F02 C12-E01 C12-F01 C14-F01 C14-F02

Cards
pattern, for knitting machines F02-B01
pattern, for looms F02-A02
punch, for knitting machine F02-B01

Carotenoid B03-A C03-A

Carotenoid dyes E25-B

Carpet back coatings F03-E01 F04-D

Carpets A12-D02 F04-D04
tufted F02-D
woven F02-A03A

Carrageenan A03-A+ B04-C02D C04-C02D

Carrier
having adhesive A12-A01A

Carrier layers, photographic G06-A

Carriers
electrophotographic A12-L05C2
for micro-organisms A12-W11L D05-A03A

CAR T-cell therapy B14-S21B C14-S21B

Cartilage (or extract) B04-B04E C04-B04E

Cartons A12-P06B
for fibres F01-H03A

Cartridges K03-A01

Casein A03-C01 B04-B04A6 B04-N02 C04-B04A6 C04-N02

Casings for batteries A12-E06C L03-E01D

Cast components
electrical A12-E04
other products A12-W05

Cast iron
alloys treatment M27-B03
production M24-B01B
spheroidising M24-C05

Castable (slip) refractories L02-E05

Casting (slip) L02-A03

Casting glass L01-D02

Casting metal M22-G
centrifugal M22-G03B
chill M22-G03C
continuous M22-G03A
control and testing M22-G03J
die M22-G03D
Directional solidification M22-G03L
fettling and post-treatment M22-G03H
For aero engines M22-G03K1A
For IC engines M22-G03K2
For turbines M22-G03K1
furnaces, ladles and ancillary equipment M22-G03G
ingots for forging M22-G02
Investment casting M22-G03N
machines and processes M22-G03
mold cleaning apparatus M22-G03G7
mold handling apparatus M22-G03G8
pigs M22-G01
Rapid Solidification Processes M22-G03M
treatment of metal in the mould M22-G03G4
vacuum M22-G03E

Casting molten ceramics L02-A05

Casting polymers A11-B04+
by other specific moulding A11-B04B
by rotational moulding A11-B04A
forming films, sheets, lace A11-B04C
with condensant/ monomer and polymerising A11-B04+

Casts (medical) A12-V03A

Cataleptics B12-C03 B14-J01B C12-C03 C14-J01B
catalysts J04-A02

Catalysts J04-E
cadmium N03-F02
carrier for petroleum refining H04-F03
carrier for polymerisation A02-D
carrier, general J04-E03
carrier, oxide L02-G12
cerium N03-A02A
containing phosphorus E31-K01 N04-B N05-E01 N06-B03
composition, petroleum processing H04-E06
deactivator A02-C
dehydrogenation J04-E04B
destruction A10-G01A
electrocatalyst J04-E04D
electrocatalytic reactions N07-G
fixed bed N06-C05
fluidised bed N06-C06
for hydrocarbon processing H04-F
for sensor application J04-E09B
fuel cell electrode L03-E04B1
gallium N03-G04
general N06
germanium N03-G02
heterogenous N06-C12
heteropolyacid N06-C13
homogenous N06-C04
hydrogenation J04-E04B
indium N03-G01
lanthanides (general) N03-A02

lanthanides (other than cerium) N03-A02B
lanthanum N03-A01
lead N03-G04
mercury N03-F02
oxidation/reduction J04-E04A
organic N compounds N05-D
organic polymer N05-E03A
palladium carboxylate N02-F04
palladium inorganic cpd N02-F05
phase transfer N06-H
platinum carboxylate N02-F06
platinum inorganic compound N02-F05
polymer use in A12-W11K
polymerisation A02-A+
production, manufacture H04-F05
J04-E11
promoter N06-G
radium N03-A03
recovery from polymer A10-G01A
recovery with S removal E31-F01
regeneration/recovery J04-E05
N06-E+
resin, organic N05-E03A
scandium N03-A01
support N06-F
support, for polymerisation A02-D
support, polymer use as A12-W11K
testing J04-E10
thallium N03-G04
thorium N03-A03
tin N03-G03
titanic acids N03-B01A
titanium element N03-B01A
titanium hydroxides N03-B01A
titanium oxides N03-B01A
unspecified N06
yttrium N03-A01
zinc N03-F01

Catalytic
chain contraction N07-F05
chain expansion N07-F05
cracking H04-B02
N07-F02
cyclization N07-F07
decyclization N07-F08
dehydration N07-F06B
dehydrogenation of C-C bonds N07-C02
dehydrogenation process (other than of C-C bonds) N07-C03
dehydroxylation N07-F06B
detection process N07-L03B
diaphragm N06-C03
electrode N06-C02
gas separation J01-E03F
gas treatment J01-E03F
hydrogenation of unsaturated C-C bonds N07-B01
industrial effluent treatment N07-L01B1
hydrolysis N07-F06A
membrane N06-C03
nitration N07-D08C
oxidation other than with air or oxygen (O2) N07-C03
oxidation with air N07-C01
oxidation with oxygen (O2) N07-C01
processes general J04-E01
N07+
purification processes N07-L01+
reforming H04-C02
removal of nitrogen oxides from waste gases E31-H01
N07-L02C
waste gas treatment J01-E02D
N07-L01C
waste treatment apparatus J04-E09A

Catalytic proteins B04-L01
C04-L01

Catamenial devices with special shape B12-M02D
C12-M02D
D09-C02

Cataplasm A12-V03A
B12-M02C
C12-M02C
D09-C04A

Cataractic treatment B12-L04
B14-N03
C12-L04
C14-N03

Catarrh treatment B12-D02
B14-K01E
C12-D02
C14-K01E

Catatonic B12-D10
B14-J01B1
C12-D10
C14-J01B1

Catheters A12-V03B
B11-C04B
C11-C04B
D09-C01F

Cathode ray tubes A12-E11A
production of G06-D06
resists used in manufacture A12-L02B2
structural parts for L03-C03

Cathode sputtering
apparatus for semiconductor manufacture L04-D02
magnetrons M13-G02B

Cathodes - see Electrodes

Cathodic protection M14-G

Cathodic sputtering
apparatus including target materials M13-G02
processes M13-G01

Cation exchange resins - see Ion exchange resins

Cationic detergents D11-A02

Cationic dyes for dyeing/printing fibres F03-F22

Cationites - see Ion exchange resins

Cats eyes A12-R

Cattle repellents B12-N06
B14-B13
C12-N06
C14-B13

Caulking compositions A12-R08
G04-B02

Ceilings A12-R07

Cell control agents for polymers A08-S07

Cellophane A03-A05

Cells, electrical L03-E
polymer use in A12-E06+
primary L03-E02
primary and secondary, components L03-E01
primary and secondary, components electrode L03-E01B
primary and secondary, components, electrolyte L03-E01C
primary and secondary, components, non-active component L03-E01D
primary and secondary, components, separator L03-E01A
secondary L03-E03
component production L03-E08

Cells, electrolytic J03-B02
polymer use in A12-E09

Cells, electrolytic (metallurgy) M28-C
construction and assembly M28-C03
electrodes M28-C01
operating and servicing M28-C02

Cells, fuel L03-E04
polymer use in A12-E06+
solid oxide electrolyte L03-E04A

Cells, living B04-B04A
B04-F01
C04-B04A
C04-F01
Amphibian B04-F07B
C04-F07B
animal B04-F01
C04-F01
avian B04-F07E
C04-F07E
avian (transgenic) B04-F07E0E
C04-F07E0E
blood B04-B04D1
B04-F04
C04-B04D1
C04-F04
cancer/carcinoma B04-F02A
C04-F02A
chimeric/fused B04-F05A
C04-F05A
culture D05-H08
culture tests B11-C08E1
C11-C08E1
division inhibitors B12-G07
B14-H01B
C12-G07
C14-H01B
Eucaryotic B04-F01
C04-F01
Fish B04-F07D
C04-F07D
hybridomas B04-F05
C04-F05
D05-H15
insect B04-F07A
C04-F07A
mammal B04-F02
C04-F02
monoclonal antibody producing B04-F05
C04-F05
ova B04-F03
C04-F03

plant B04-F08 C04-F08
protozoa B04-F06 C04-F06
recombinant (unspecified) D05-H14
recombinant cell lines D05-H14B
recombinant microbial D05-H14A
reptile B04-F07C C04-F07C
sperm B04-F03 C04-F03
stem B04-F02B C04-F02B

Cell therapy B14-S21+ C14-S21+

Cells, polymer use in electrochemical/electrolytic A12-E09
fuel including accumulators, batteries A12-E06+

Cellulite treatment D08-B15

Celluloid ® A03-A03

Cellulose and derivatives A03-A+ B04-C02A C04-C02A
acetate A03-A02+
acetate butyrate A03-A03
acetate fibres A03-A02A F01-D01
acetate fibres, dyeing/printing F03-F04
acetate propionate A03-A03
butyrate A03-A03
detergent additive D11-B10
diacetate fibre A03-A02A F01-D01
ester fibres
ester fibres, dyeing/printing F03-F04
ester fibres, production F01-D01
esters, excluding acetate A03-A03
ethers A03-A04+
ethers use A03-A04A+ A12-S05N
ethers preparation of fibres/fabrics dyeing/printing A03-A04B F03-F03
nitrate A03-A03
regenerated A03-A05+
regenerated, fibres, textiles A03-A05A F01-D06
triacetate A03-A02+
triacetate, fibres A03-A02A F01-D01
xanthate A03-A05+
xanthate, fibres, textiles A03-A05A F01-D06A

Cellulose production, for paper F05-A02+
bleaching of pulp F05-A02B
pretreatment F05-A02A
pulp, aftertreatment F05-A02B
pulping F05-A02A
recovery of pulping chemicals F05-A02C
regenerating of pulp liquor F05-A02C
use of residues F05-A02C
waste water treatment F05-A02C
working up waste paper F05-A02B

Cellulosic
fibrous suspension, manufacture of articles from F05-A07
fillers A08-R07
paints A12-B01D G02-A02A
polysaccharides A03-A01+ B04-C02A C04-C02A
polysaccharides, fibres, textiles A03-A01A

Cement - (see also Adhesives) L02
accelerator L02-C08
additive L02-C08
alumina L02-C07
calcium sulphate L02-C05
dental A12-V02B D08-A02
gypsum L02-C05
magnesium L02-C04
mixers L02-D02
polymer coating on A12-B08
polymer use in A12-R01A
Portland L02-C02
Pozzuolanic L02-C03
production L02-A01
refractory L02-E05
retarder L02-C08
slag L02-C03
special L02-C06
testing L02-A08
waste product L02-C03
with Portland clinker L02-C03

Cementation coating M13-D

Cemented carbide L02-J01B

Cementing
compositions L02-D12A H01-C02B
of or with polymers A11-C01+
of petroleum wells A12-W10C H01-C02A

Centralizer H01-B03C5

Centrally active (CNS) B14-J01 C14-J01

Centrifugal
apparatus J01-L
casting of metal M22-G03B
casting of plastics A11-B04A
separation: particles from gases J01-G02
separation: petroleum processes H02-D03
spinning of fibres F01-C07

Centrifugation in tests B11-C08D3 C11-C08D3

Centrifuges J01-L01

Centrifuging
engine exhaust gases H01-C04B
liquids J01-F03
sludge from waste water D04-B10A
sugars D06-C

Cephalins B04-B01B C04-B01B

Cephalosporins B02-C C02-C

Ceramic
nitrides L02-H02B2

Ceramic coatings on glass sheet L01-G04C

Ceramic composites L02-J
ceramic/ceramic L02-J02C
ceramic/fibre-reinforced metal L02-J01D
ceramic/glass L02-J02A
ceramic/metal L02-J01
ceramic/non-metal L02-J02
ceramic/plastic L02-J02B

Ceramic contacts for semiconductor devices L04-C11A

Ceramic-metal seal L02-J01C

Ceramics L02
carbide L02-H02A
casting L02-A05
cleaning L02-A10
coating on metal L02-J01E
coating with metal L02-J01A
coating with polymer A12-B08
colours L02-G04
cutting L02-A11
decorating L02-A07
drying L02-A03
extrusion L02-A03
firing L02-A04
flame (plasma) spraying L02-A06
foaming L02-A02C
glazing L02-A07
household use L02-K01
industrial applications L02-K03
magnet L03-B02B
medical L02-K02
melting L02-A05
metal coatings, processes M13-F03B
metallised L02-J01A
mold release agent L02-A03A
nanomaterials L02-A14
non-oxide L02-H
oxide L02-G
polymer use in A12-W12G
production L02-A
raw material preparation L02-B
raw material preparation equipment L02-A02
shaping L02-A03
slip casting L02-A03
substrate for printed circuit L03-H04E5
surface treatment L02-A12
testing L02-A08
welding L02-A11

Cereal B04-A07D2 B04-A09F C04-A07D2 C04-A09F D03-R
extracts B04-A10G C04-A10G
preservation D03-A05

Cerebral active B12-C10 B14-J01 C12-C10 C14-J01

Cerebroprotective B14-J01 C14-J01

Cerebrospinal fluid B04-B04H C04-B04H
Ceric ammonium nitrate polymerisation catalyst A02-A03
Cerium catalysts N03-A02A
Cerium compounds B05-A03B C05-A03B
inorganic E34-E02A
organic E05-P
Cerium oxide L02-G01C2
production L02-G12D2
Cermets L02-J01B
Cesium catalysts N01-A
Cesium compounds B05-A01B C05-A01B
inorganic E33-H
organic E05-A E05-A02
Chafer fabric F04-E01
Chain (carbon) expansion/ contraction B11-C01 C11-C01
catalyzed process N07-F05
chemical process E11-B
oligomer-/telomerisation E11-F01
addition of CO(2) E11-F02
other chain extension E11-F03
contraction E11-G02
Chain (polymer)
couplers A02-B
stoppers A02-C
transfer agents A02-B
Chain making M21-L
Chairs A12-D1
Chaperones/chaperonins B04-N09 C04-N09
Charcoal B05-C06 E31-N+
Charge carrier generators, electrophotographic
inorganic G06-F07+
organic G06-F06
Charged particle counters K08-A02
Charge transfer process, electrophotographic G06-G08D
Charge transport materials, electrophotographic
inorganic G06-F07+
methine type E25-B E25-B01
organic G06-F06
Charged couple devices L04-E05F
Charging, electrophotographic G06-G07
Cheese D03-B06 D03-B06
additive D03-B04 D03-B04
moulding D03-B03 D03-B03
packing and transporting D03-B05 D03-B05
Cheese dyeing of fibres/ fabrics F03-F29
Chelate resins (see also Ion- exchange) A12-M05
Chelating agent A08-A07
in detergents D11-B06
to purify liquids J01-D05
Chemical analysis of polymers A09-B
Chemical blowing agents for polymers
others A08-B
releasing carbon dioxide A08-B02
releasing nitrogen A08-B03
Chemical brightening of metal M14-B
Chemical cleaning/ degreasing of metal
apparatus M12-A04
cleaning/pickling solutions or salts M12-A01
disposal/regeneration M12-A03
inhibitors M12-A02
processes M12-A05
Chemical disinfection other than of food or air D09-A01+
Chemical engineering A12-W11+ J+
(meth)acrylamide (co)polymer, use in A04-D04A2
PVC, use in A04-E02E1
silicone polymer, use in A06-A00E2
Chemical etching of metal
chemical processes M14-A02
etching media, liquid or gaseous M14-A03
Chemical features in spinning of synthetic filaments F01-D+
Chemical modification of
drying oils G02-B03
fats and oils D10-B02
natural resin G02-B01
polymers - (see also Modification) A10-E+
Chemical mowing B12-P02
Chemical plating of metal M13-B
Chemical preservation of corpses D09-A01 D09-A03
Chemical processes (general) B11-C01 E11-K
Chemical removers for paint and ink G02-A03C
Chemical sensitisers, photographic G06-H01
Chemical treatment of :
fabrics F03-C+
natural fibrous material F01-B+
polymer surfaces A11-C04D
Chemical vapour deposition of ceramics M13-E L02-A02B
Chemical warfare agents, protection against K02-A01
Chemiluminescence G04-A
Chemiluminescence tests B11-C07B4
Chemiluminescent tracer bound to antibody or antigen B11-C07A5
Chemoprotectant B14-M02A C14-M02A
Chemotherapy B14-S25 C14-S25
Chess games A12-F01
Chewable formulation B12-M11R C12-M11R
Chewing gum A12-W09 B12-M11 D03-E+ D03-E09
Chewy candy chocolate D03-E10B D03-E10B1
Chicken meat D02-A03B
Chill casting of metal using moulds or cores with high thermal conductivities M22-G03C M22-G03C1
Chinese herbal medicine B04-A10 C04-A10
Chipboard coating on polymer use in production of F05-A07 A12-B09 A12-A04B A03-A+ A11-B09B
Chitin B04-C02E3 B04-C02E3 C04-C02E3
Chitosan A10-E09 B04-C02E3
Chlor-alkali cells A12-E09 J03-B04
Chloramphenicol B02-C01
Chlorella B04-F08 C04-F08
Chlorinated polyethylene A10-E04A
Chlorinated/ chlorination of polymers A10-E04A
Chlorine catalysts N04-D+
Chlorine or derivatives - see Halogen or derivatives
Chloro - see also Halo, Monochloro and Polychloro
Chloroalkylated/ chloroalkylation of polymers A10-E03
Chloromethyl styrene (co)polymers monomer E10-H02G A04-C A01-D02
Chloromethylated/ chloromethylation of polymers A10-E03
Chloroprene (co)polymer monomer E10-H02J A04-B08 A01-C04
Chlorosulphonated polymers - see Halosulphonated polymers
Chlorotrifluoro- ethylene (co)polymers monomer E10-H02B A04-E10D A01-D12
Chlortetracycline B02-T

Chocolate D03-E07
Chocolate candy D03-E10+
chewy candy D03-E10B1
hard candy D03-E10A
Cholagogue active B12-G02
Cholecystokinin (CCK-PZ) B04-J13
C04-J13
Cholecystopathy treatment B12-G02
Cholera treatment B12-A01
Choleretic B12-G02
Cholestane B01-D02
Cholesteric/ cholesterylic (liquid crystal property of polymer) A09-A02A
Cholesterol B01-D02
B01-D02
C01-D02
reduction of blood levels B12-H03
Cholinergic B12-E05
B14-J02A1
C14-J02A1
Chondroitin B04-C02E2
B04-C02E2
C04-C02E2
Chopped meat D02-A03B
Chopping up waste for fermentation D05-A04B
Chorionic gonadotropin B04-B02D4
Chromate coating of metal M14-D03
Chromatography
GC-MS J04-B01C5A
LC-MS J04-B01C6
in gas phase J01-E03A
in liquid phase J01-D01A
J04-B01C2
polymer application A12-L04A
thin layer J04-B01C1
Chromatography tests B11-C08D2
J04-B01C
Chromising
using gas M13-D03B
using solid M13-D01B
Chromium
alloys M26-B13
electrodeposition M11-A01
Chromium catalysts N03-D
N03-D
N03-D01
for polymerisation A02-A06+
Chromium compounds B05-A03B
inorganic E35-P
organic E05-L03
E05-L03A
E05-L03A
pigment/filler G01-A07
pigments or fillers G01-A07
Chromium oxide polymerisation catalyst A02-A06A
Chromium production M25-G10
Chromogenic compounds for heat sensitive systems G06-F08A
Chromophorotropic hormone B04-B02D4
Chromosomal abnormality disorder B14-S20A
C14-S20A
Chrysanthemum acid (or derivatives) B04-A07C
Chrysene B08-C01
E08-C01
Chymotrypsin B04-B02C3
B04-L05C
C04-L05C
Cicatrizant B12-A07
Cigarettes
filters for A12-H04
D07-D
F04-E05
tobacco substitutes in A12-W
Cinchona alkaloid B04-A02
Cine sound tracks G06-D
Cinerin B04-A07C
Cinnamic acid E10-C04C
(co)polymers A04-C
monomer A01-D02
Cinnoline B06-D06
E06-D06
Circuit components (electrical), polymer use A12-E07+
Circuitry, basic electronic L03-H02
Circuits
(electro)photographic production of G06-D06A
integrated A12-E07C
printed A12-E07A
L03-H04E+
printed, ceramic substrate for L03-H04E5
printed, electroplating of L03-H04E3
printed, plastics substrate for L03-H04E1
printed, reprographic methods of L03-H04E2
printed, thick film L03-H04E4
Circulatory active general and other B14-F02
C14-F02
Circulatory diseases
diagnosis B12-K04A2
B12-K04G2B
C12-K04A2
C12-K04G2B
treatment B12-E01
Cirrhosis treatment B12-E08
B12-G08
Cisterns A12-R02
Citrates plasticisers/extenders A08-P06
Citric acid B10-C02
E10-C02A
Civil engineering A12-R+
polyethylene, use in A04-G02E4
PVC, use in A04-E02E1
road compositions A12-R09
unsaturated polyester, use in A05-D02E1
CJD treatment B14-N16B
C14-N16B
Cladding of or with metal M13-H01
Clamps A12-H12
Clavulinic acid and derivatives B02-C01
B06-E03
Clay
expanded, preparation of L02-B05
detergent use D11-B11
D11-B11A
heavy, products L02-G02
non-expanded, preparation of L02-B06
Clay bound to enzyme D05-A01A5
Clay fillers A08-R06B
G01-A10
Cleaning apparatus for semiconductor devices L04-C09C
Cleaning compositions (see also Detergents) A12-W12+
G04-B08
for semiconductor manufacture L04-C09A
Cleaning electrophotographic materials G06-G08E
Cleaning heat exchangers J08-E+
appliances J08-E01
details J08-E03
processes J08-E02
Cleaning metals M12-A+
apparatus for M12-A04
electrolytic M11-H01
with solution or molten salt M12-A+
Cleaning of polymer handling/ processing plant A11-C
Cleaning of semiconductor devices L04-C09B
Cleaning of semiconductor apparatus L04-D11
Cleaning of teeth or mouth D08-B08
Cleaning polymerisation apparatus A10-G
Cleaning printing plates G05-F
Cleaning solutions/salt mixtures for metals M12-A01
disposal/regeneration M12-A03
inhibitors M12-A02
Cloches A12-W04A
Clocks A12-W
Closures for
containers A12-P03
B11-C06A
packages A12-P03
Cloth, polymer coatings on A12-B02+
Clothes making F04-F01
Clothing A12-C+
F04-C+
colour care D11-D07C1
fabric softener/ detergent D11-D07C2
fasteners A12-C03
F04-C04
foam backed A12-C01
footwear A12-C04
F04-C05
protective D09-C04D
protective, against radiation K07-A

safety A12-C02
sports A12-F01
Clotting factors B04-B04D3
Cloud point depressants (fuels) H06-D05
Cloxacillin B02-P03
Clubs (sports equipment) A12-F01B
Clusters F01-E09A
Clutch material A12-H10
CMC A03-A04+ B04-C02A2
use A03-A04A+
use - food, medical, cosmetic A03-A04A1
CNS
disorder diagnosis B12-K04A5
sedatives B12-C05 B12-C08
CNS active
depressants general B12-C05 B14-J01B C12-C05 C14-J01B
general B14-J01 C14-J01
stimulants general B12-C06 B14-J01A C12-C06 C14-J01A
Co-ordination complex catalysts not CO, not pi N05-C
Coagulants B12-H04 B14-F08 C12-H04 C14-F08
Coagulants for :
blood B12-H04
pollution control A12-W11E
sewage D04-A01B D04-B09
Coagulants, polymer use
acrylic A12-M01
others A12-M02
Coagulation of liquids J01-D03
Coagulative spinning F01-C04
Coal additives H09-H03
Coal dust
coatings on A12-B09
laying compositions G04-B
Coal hydrogenation, liquefaction H09-A01+
Coal removal from water D04-B03
Coal slurries
coal slurries A12-T03A H09-G+
Coal tar plasticisers A08-P08
Coal, briquettes and briquetting H09-F
Coated foods D03-H01S
Coating aids, photographic G06-H18
Coating ceramic
on metal L02-J01D
with metal L02-J01A
Coating compositions - see also Paints
as primers G02-A05E
containing polymer (general) A12-B+
containing polymer (general), solvent based A12-B01B
containing polymer (general), water-based (emulsion) A12-B01A
corrosion resistant for metals G02-A05E
fireproof A12-B08 G02-A05D
for concrete G02-A05F
for electrical material other than wires G02-A05B
for magnetic material G02-A05B
for masonry A12-B03+ G02-A05F
for paper G02-A05C
for road paints G02-A05F
for traffic sign paints G02-A05F
for walls A12-E02+ G02-A05F
for wires G02-A05A
non-stick G02-A05D
release coatings G02-A05D
Coating concrete L02-D14+
Coating fabrics F03-E01
Coating from a liquid metal bath M13-A
Coating from a solution or suspension of metal compound M13-B
Coating glass L01-G04+
bottles L01-G04A
sheet with inorganic materials L01-G04C
sheet with metallic materials L01-G04C1
sheet with organic materials L01-G04B
tableware L01-G04E
Coating of metal (processes) by :
cladding M13-H01
diffusion using gases M13-D03
diffusion using liquids M13-D02
diffusion using solids M13-D01
electrophoresis (general) M11-G
electrostatic method M13-H06
gas decomposition/reduction M13-E+
gas decomposition/ reduction to form inorganic coating M13-E02
gas decomposition/ reduction to form metallic coating M13-E01
non-electrolytic method (general) M13-H+
non-electrolytic method - control and testing M13-L
sintering M13-H02
spraying M13-C
to form organic coating M13-E03
using adhesives M13-H03
vapour deposition M13-F
Coating of metal by:
post-treatment M13-D04
Coating of metal with :
ceramic L02-J01D
chromate layer M14-D03
non-metallic layer (by surface reaction - general) M14-D+
non-metallic layer (electrically) M11-F
oxide layer M14-D01
phosphate layer M14-D02
plastics A12-B04+
plastics, non-electrically M13-H05
refractory coating (non-electrically) M13-H04
Coating optical glass
components L01-G04D
fibres L01-F03A1
Coating polymer surface with
metals (by metallisation) A11-C04B1
non-metals A11-C04B2
polymers A11-B05+
Coating processes, photographic G06-E04
Coating processes, with polymer:A11-B05+
by dipping A11-B05A
by extrusion A11-B05B2
by flocking A11-B05B
by spraying A11-B05B1
by spinning A11-B05B3
involving electrodeposition A11-B05A
involving fluidised beds A11-B05A
with condensants (followed by polymerisation) A11-B05C
with dispersions A11-B05D
with foams A11-B05E
with melts A11-B05E
with monomers (followed by polymerisation) A11-B05C
with pastes A11-B05D
with powders A11-B05E
with solutions A11-B05D
Coating with crosslinking A11-C02C
Coating with metal by :
cladding M13-H01
diffusion M13-D+
electrostatic method M13-H06
non-electrolytic method (general) M13-H+
non-electrolytic method - control and testing M13-L
sintering M13-H02
spraying M13-C
using adhesive M13-H03
Coatings
antifouling G02-A05G
anti-graffiti G02-A05J
corrosion resistant G02-A05E
fire proof G02-A05D
for concrete G02-A05F
for glass (excluding glass fiber) G02-A05F
for magnetic recording material G02-A05B1
for optical fiber G02-A05H
for paper G02-A05C
for wire G05-A05A

general addition polymer based A12-B01W
general condensation polymer based A12-B01X
non-stick G02-A05D
release G02-A05D
Coatings and impregnations (polymer use) A12-B+
Coatings of polymers A12-B+
Coatings, friction and oil-free lubricants M13-K
post treatment M13-G05
wear resistant M13-M02
Coatings, sprayable refractory L02-E05
Coatings, use of following polymers in (meth)acrylamide (co)polymer A04-D04A1
(meth)acrylate (co)polymer A04-F06E7
(meth)acrylic acid (co)polymer A04-F04B
(meth)acrylic anhydride (co)polymer A04-F04B
epoxy resins A05-A01E4
phenol-formaldehyde resin A05-C03A
phenolic resins A05-C01B1
polyethylene A04-G02E1
polyurethane A05-G01E1
PVA A10-E09B1
PVC A04-E02E2
saturated polyesters A05-E01D1
silicone resins A06-A00E1
Coats (apparel) of fabric A12-C
F04-C03
Cobalamin and derivatives B15-B12
C15-B12
Cobalt based alloys M26-B08
magnetic L03-B02A4
Cobalt catalysts N02-B
element N02-B01
oxide N02-B01
Cobalt compounds B05-A03B
C05-A03B
inorganic E35-V
inorganic pigment G01-A13
organic E05-L02
E05-L02B
Cobalt electrodeposition M11-A02
Cobalt naphthenate accelerator for ethylenically unsaturated polymers A08-C03
for other polymers A08-D05
Cobalt production M25-G11
Cocaine B04-A01
C04-A01
Coccidiostat B12-B05
B14-A03C
C12-B05
C14-A03C
Cocoa D03-E
Cocondensation A10-D+
Cocoon handling to obtain silk, mechanical F01-A01
Cod liver oil B04-B01C2
C04-B01C2
Codeine B04-A04
C04-A04
Coenzyme inhibitors B14-D04
C14-D04
FAD B14-D04
C14-D04
NAD B14-D04
C14-D04
NADH B14-D04
C14-D04
Coenzymes B04-B02C1
B04-L02
C04-B02C1
C04-L02
by fermentation D05-C03A
Coextrusion A11-B07+
laminating of films A11-B07A
A12-S06C+
Coffee D03-D01
bags D03-D01A
bean treatment D03-D01
D03-J02
substitutes D03-D03A
Coffins A12-W
Cognitive enhancer B14-J01A4
C14-J01A4
Coils
electrical A12-E08B
L03-B02F
magnetic A12-E08B
of fibres F01-H03D
Coining (powder metallurgy) M22-H03E
Coke (petroleum) H08-E02
Coke ovens H09-A02
M24-A01B
Coke, coking (coal) H09-A
Coking process (petroleum feedstock) H04-B01
Cold (common) treatment
adrenergic B12-E07
C12-E07
analgesic B12-D01
C12-D01
antifebrile B12-D08
C12-D08
antiviral B12-A06
C12-A06
bronchodilator B12-K02
C12-K02
expectorant B12-K05
C12-K05
unspecified mode of action B14-A02B3
C14-A02B3
Cold exchangers J07-D03
Cold forming of polymers A11-B08
Cold sore B14-A02A3
C14-A02A3
B14-N17H
C14-N17H
Cold working of
cast iron alloys M27-B03
ferrous metal M24-D01B
iron alloys M27-B
non-ferrous metal or alloys M29-B
steel alloys M27-B04
Colistin B02-C
C02-C
Colitis treatment B12-E08
B12-G02
B14-E10C
C12-E08
C12-G02
C14-E10C
Collagen A03-C01
B04-B04A6
B04-N02
C04-B04A6
C04-N02
Collagenase B04-B02C3
B04-L05C
C04-B02C3
C04-L05C
Collapsible containers A12-P06C
Colloid B12-M07
C12-M07
chemistry J04-A03
protective (polymer additive) A08-S06
pharmaceutical form B12-M11V
C12-M11V
transfer material for photosensitive systems G06-C11
Colloxylin A03-A03
Colon disease treatment B14-E10C
C14-E10C
Colony stimulating factors
G-CFS B04-H04A
C04-H04A
general and other B04-H04
C04-H04
GM-CFS B04-H04C
C04-H04C
M-CSF B04-H04B
C04-H04B
MEG-CSF B04-H04D
C04-H04D
Colophony A03-C02
Colorant
for food (natural) D03-H01E1
for food (synthetic) D03-H01E2
Colorimetric tests B11-C07B1
C11-C07B1
Colour additive system for photography G06-C13
Colour bleaching (photographic) G06-G11
Colour care D11-D07C1
Colour coupler E26
photographic G06-H08
photosensitive system containing G06-C01
Colour formers for heat sensitive systems G06-F08A

Colour materials for photosensitive system
containing coupler G06-C01
dye destruction G06-C03
electrophotographic G06-C04
Kodachrome ® type G06-C02
Colour proofing (printing) G05-C
Colour receptiveness of polymers
additives to improve A08-M01A
inherent property A09-A06
Colour tracer bound to antibody or antigen B11-C07A2 C11-C07A2
Colour, photographic
development G06-G10
fixing G06-G12
stabilisation G06-G13
Coloured layers on metals (chemically) M14-C
Colouring glass surfaces L01-G05
Colouring of polymers A11-A01
Colouring oxides for glass compositions L01-A03B
Colouring, processes A11-A01B
Colouring, using specific compositions A11-A01A
Colours, ceramic L02-G04
Columbium - see Niobium
Coma treatment B12-D10 B14-J01A2 C12-D10 C14-J01A2
Combing, yarn processes F01-F01
Combinatorial process B11-C01A C11-C01A E11-K01
library synthesis B11-C01A1 C11-C01A1
Liquid phase synthesis B11-C01A2 C11-C01A2
Solid phase synthesis B11-C01A3 C11-C01A3
Parallel synthesis B11-C01A4 C11-C01A4
High volume synthesis B11-C01A5 C11-C01A5
Combinatorial apparatus B11-C01B C11-C01B E11-K02
Comminuting waste for fermentation D05-A04B
Comminution of polymers A11-A04
Communications (use of electro(in)organic material) L03-H03
Commutators L03-B04C
Compact discs A12-L03C
Complement factor B04-H01
Complement inhibitor B12-D02C B14-G02 C12-D02C C14-G02
Complex catalyst
carbon monoxide containing N05-B
carbonyl containing N05-B
other co-ordination N05-C
pi-bonded N05-B
Ziegler(-Natta) catalysts A02-A06+
Complex quaternary and ternary AIII-BV compounds L04-A02D
Complexing agents
adding to water D04-A03
additive for polymers A08-A07
in detergents D11-B06
to purify liquids J01-D05
Complexing with organic reagents, non-ferrous metal extraction M25-B04
Composite inorganic pigment G01-C
Composite materials (powder metallurgy) M22-H03F
Composite rolls for rolling mills, manufacture of M21-A02A
Composite-reinforced materials containing fibres F03-D+
Compost B04-A07D B04-A09 C04-A07D C04-A09
Compounding polymers A11-A03+
Compression moulding A11-B11
Compression type refrigeration J07-A01
Computational genomics B11-C08F1 C11-C08F1 B11-C11C1 C11-C11C1
Computational proteomics B11-C08F3 C11-C08F3 B11-C11C2 C11-C11C2
Computer ribbons, fabric F02-E02
Computerisation in polymer processing A09-D+
Computers (use of electro (in)organic material) L03-H03A
Computing methods B11-C11 C11-C11
Concentration of
ferrous ores M24-A01
food D03-K09
non-ferrous ores M25-A01
non-ferrous ores, dry methods M25-A01A
non-ferrous ores, wet methods M25-A01B
polymers A10-G01+
Concrete L02-D
autoclaves L02-D04
binders (special) L02-D07
coating compositions for G02-A05F
coatings L02-D14
coatings, polymeric A12-B08
decorating L02-A07
fillers (special) L02-D06
glazing L02-A07
gypsum products L02-D07A
heavy L02-D02
light L02-D03
polymers in A12-R01A
prefabricated L02-D04
prestressed and reinforced L02-D05
production equipment L02-D02
resin L02-D07B
testing L02-D08
Concrete additives L02-D14
antifoaming L02-D14S
fabric for reinforcing F03-D04
frost resistance L02-D14C
plasticising and fluidising L02-D14E
polymeric A12-R01A L02-D14F
set accelerators/ retarders L02-D14A
strengthening L02-D14B
water permeability retarding L02-D14Q
water reducing L02-D14D
Concrete manufacture
decorative coating L02-D14P
polymeric coating A12-B08 L02-D14M
Condensant (for polymer) A01-E+
Condensant, polymerising coating process with A11-B05C
Condensation of vapour J01-A03
Condensation polymerisation A10-D+
Condensation polymers only blends/mixtures A07-A03+
Condensation polymers stabilisers A08-A01B
Condensation resin coatings on metal A12-B04C
Condensers for vapour or steam J08-A
Condensers, electrical A12-E07B L03-B03
Conditioners for fabrics D11-B15 F03-C05
Conditioning fibres, yarns with heat F01-H05
Conditioning polymer A11-B02+
Condoms A12-V03B B12-K03 C12-K03
male C14-P01A
Conductive (electrical), additives for polymers A08-M09A
Conductive alloy compositions L03-A01A5
Conductive coatings on windows L01-H02
Conductive films for LCD L03-G05B9
Conductive layers manufacture in semiconductor manufacture L04-C10
Conductive nanomaterials L03-A02G
Conductive pastes, inks L03-A01A3
printed circuits L03-H04E4
Conductive polymer (electrical) A09-A03 L03-A02D
Conductivity monitoring J04-C02B

Conductors, electrical L03-A
metallic L03-A01
metallic, insulated L03-A01B
metallic, non-insulated L03-A01A
non-metallic L03-A02
non-metallic, non-insulated L03-A02A
Confectionery D03-E
coating D03-E02
cooking and mixing ingredients D03-E05
dispensers D03-E06
packing D03-E04
shaping D03-E03
transporting D03-E01
Conferring herbicide resistance to plants C14-U03
Conferring pest resistance to plants C14-U04
Conferring stress tolerance to plants C14-U05
Conifers B04-A08C1 C04-A08C1
Conjugate fibres A12-S05B F01-E01+
crimped F01-E01A
Conjugated aliphatic di-olefinic monomers
substituted A01-C04
unsubstituted A01-C05
Connectors, (for pipes) A12-H02C
Conserve D03-H01V
Conserving foodstuffs with sugar D03-H02D
Consolidation of incompetent formation H01-C09
Consolidation, earth A12-A02
Constipation treatment B12-J07 B14-E09 C12-J07 C14-E09
Construction industry A12-R+
Construction material, polymer foam use in A12-S04B
Contact adhesives A12-A+ G03-B+
Contact breakers L03-B04B
Contact igniters, chemical K04-B02
Contact lens cleaners D11-C01 D11-D01C
Contact lenses A12-V02A D09-C01A
Contacts, electrical L03-A01
alloy
alloy, other L03-A01A2
alloy, silver L03-A01A1
for semiconductors L04-C11
sliding L03-A01A4
Containers
foam use in A12-S04C
for bakery or dough product D01-A04
for food D03-K08
for pharmaceutical and agricultural compositions B11-C06 C11-C06
general, polymer use in A12-P01B
glass, filling of L01-J03
polymer use in A12-P+
Continuous casting M22-G03A
cooling M22-G03A3
moulds M22-G03A1
withdrawal equipment M22-G03A2
Contraceptives B12-K03 B14-P01 C12-K03 C14-P01
condoms, IUD, sheaths etc. A12-V03B
creams, pills etc. A12-V01
female B14-P01B C14-P01B
male B14-P01A C14-P01A
Control devices for polymer processing equipment A09-D+
gas or liquid storage J08-B08
sewing machines F02-F01B1
Control gear engineering nuclear applications K09-L
Control of neutron flux in reactors K05-B06A
Control of nuclear reactors K05-B06
Control rods (nuclear reactor) K05-B06A
Control, heat treatment (ferrous) M24-D07
Controlled fusion reactors K05-A03
Controlled release B12-M10 C12-M10 A12-W15
Controlling insects D09-B06
Conventional weaving F02-A04A
Conversion coating of metal M14-D
chromating M14-D03
oxide coating M14-D01
phosphating M14-D02
Conversion of chemical element K08-B
Conversion of polymer into small particles A11-A04
Conversion screens for X-ray material G06-A09
Converter processing of fibres F01-G03
Converter, steel processing M24-B02C
Conveying of polymer articles A11-C06
Conveyor belts A12-H01 F04-E07
Convulsants B12-D10 B14-J06 C12-D10 C14-J06
Cookies D01-B02C
Cooking food D03-K01
fryer D03-K01B
grill D03-K01C
microwave D03-K01A
Cooking utensils A12-D03
Coolants A12-W11G G04-B01
Coolants for nuclear reactors K05-B03
liquid metal K05-B03A
Coolers, trickle J08-B01
Cooling
apparatus J07-C
apparatus, iron and steel production M24-A05B
furnace charge J09-B03
hot blast M24-A05E1
in polymer processing A11-A02C
spun fibres F01-C
towers A12-W11G
Coordination catalysts for polymerisation A02-A06+
Cop dyeing F03-F29
Cop handling in winding of fibres F01-H03C
Copals A03-C02
Copolymerisation A10-B+ A10-C+
block A10-C02
general A10-B01
graft A10-C03+
ordered A10-C+
Copper
alloy conductive tracks on semiconductors L04-C10D
alloys M26-B03
electrodeposition M11-A03
removal from waste water D04-B05 D04-B05B
Copper catalysts N02-D
element N02-D01
oxide N02-D01
sulphide N02-D01
Copper compounds B05-A03A3 C05-A03A3
inorganic E35-A
inorganic pigment G01-A13
organic E05-L03 E05-L03B
Copper compounds as antiseptic, fungicidal or animal repellent in polymers A08-M02
Copper production M25-G08
Cops for fibres F01-H03A
Copying material
non-radiation sensitive G05-E
pressure sensitive A12-D05A G05-D
Cords F04-A
in packaging A12-P07
in tyres A12-T01C F04-E01
Cords, tyre A08-R+ F04-E01
polymeric A12-T01C
Core binding A12-A02
Core boxes for patterns M22-C02
Core compositions M22-A01
Core making M22-E
Core material, refractory L02-E06

Core moulds A12-A02
Core production and design M22-D
Core, sheath manufacture
for optical glass fibres L01-F03F1
Core-sheath
fibres A12-S05B
F01-E01+
yarns F01-E
Cores, chill casting M22-G03C1
Cores, foundry A12-A02
Cores, magnetic L03-B06
Cores, other than for foundry casting M22-G03G3
Coring (oil and gas wells) H01-B05B
Coring fruit D03-J06
Corona discharging polymer surfaces A11-C04E
Coronary dilators B12-F02
B14-F01E
C12-F02
C14-F01E
Coronary thrombosis treatment B12-H02
B14-F04
C12-H02
C14-F04
Corpse preservation
chemical D09-A01
D09-A03
physical D09-A02
Corrin dyes (general) E23
Corrosion control and testing M14-J
Corrosion control in petroleum refineries H05-X
Corrosion inhibitors M14-F
as lubricant additives H07-G02
coatings G02-A05E
fuel additives H06-D02
inorganic M14-F02
organic M14-F01
Corrosion prevention
in heat exchangers J08-D02
in metallurgy M14-K
in water systems D04-A03
with polymers A12-W11J
Corrosion resistant coatings for metals G02-A05E
M14-K
Corrugated cardboard (structure) F05-A06A
Corrugating
cardboard F05-A04D
paper F05-A04D
polymers A11-B08+
sheet metal M21-E01
Corticoidal B12-G04
B14-D01
C12-G04
C14-D01
Corticosteroid receptors B04-K01L3
C04-K01L3
Corticosteroidal B14-D01
C14-D01
Corticotropic hormones B04-B02D4
B04-J05
C04-B02D4
C04-J05
Corticotropin-releasing hormone B04-J06
C04-J06
Cortisols B01-C02
C01-C02
Cortisones B01-C01
C01-C01
Cosmetics A12-V04+
B12-L02
B14-R01
C12-L02
C14-R01
D08-B
Cosmetics, polymers used in
(meth)acrylate (co)polymer A04-F06E5
cellulose ether A03-A04A1
polyamides A05-F01E3
polyethylene A04-G02E3
polypropylene A04-G03E1
PVA A10-E09B2
silicones A06-A00E3
Cosmic radiation utilisation K08-C
Cosmids B04-E08
C04-E08
Cosmonautics A12-T03+
Cot death B14-S10
Cotton A03-A05A
Cotton dyeing/printing F03-F03
solvent dyeing F03-F13A
Cotton fibre filler for polymer A08-R07
Cotton seed oil B04-B01C1
C04-B01C1
Cough treatment B12-K01
B14-K01B
C12-K01
C14-K01B
Coulometers L03-G03
Coumarin photographic brighteners G06-H09C
Coumarone E06-A01
(co)polymers A04-C
monomer A01-D02
Coumarone-indene resins A04-C
Counter for neutrons K08-A01
for neutrons K08-A02
for charged particles K08-A02
for gamma and cosmic rays K08-A03
for X-rays K08-A04
Coupler containing colour photosensitive systems G06-C01
Couplers for heat sensitive systems G06-F08A
Couplers, for
azo dyes E26-A
dyes (general) E26
oxidation dyes E26-A
Couplers, photographic G06-H08+
keto-methylene based G06-H08C
naphtholic based G06-H08A
phenolic based G06-H08A
pyrazolone based G06-H08B
pyrazolotriazole based G06-H08D
Coupling agents
for polymer additives A08-M01+
for polymer chains A02-B
Couplings, pipe A12-H02C
Courts, sports A12-F01A
Covering power increasing agents (photographic) G06-H04
Crackers (bakery products) D01-B02C
Cracking catalysts H04-F02B
Cracking process products, monomeric A01-B04
Cracking processes A10-E05+
B11-C01
C11-C01
E11-G02
H04-B
Cramp treatment B12-E02
B14-J05A
C12-E02
C14-J05A
Crash pads in vehicles A12-T04B
Crates A12-P06B
Crayons A12-D05B
G02-A04+
Cream D03-B13
artificial (synthetic) D03-B13
Cream (milk) D03-B
Creams (formulation) B12-M02
C12-M02
D08-B09
Crease proofing of fabrics
non-resinous A12-S05R
F03-C04
resinous A12-G02
F03-C04
Credit cards A12-D
with magnetic recording strips L03-B05H
Crepe fabrics F02-G02
Cresol-formaldehyde resins A05-C03+
Cresols E10-E02B
E10-E02B1
E10-E02E
E10-E02E1
condensants A01-E13
Creutzfeld-Jakob disease treatment B14-N16B
C14-N16B
Cricket
balls, bats A12-F01B
pitches A12-F01A
Crimped fibres A12-S05C
F01-E04
conjugated F01-E01A
Crimping of fibres A11-B02D
F01-H04+
jet F01-H04C2
CRISPR B04-E13
C04-E13
D05-H19C
Crockery A12-D03

Cross rolling of metal M21-H
Crosslinking
accelerators A08-C03
A08-D+
activators A08-C02
A08-D+
agents
agents for addition or ethylencally unsaturated polymers A08-C+
agents for other polymers A08-D+
agents with epoxy resin A05-A01B1
anti-scorch agents A08-C06
A08-D+
processes, general A11-C02+
retarders A08-C06
A08-D+
rubber vulcanisation A11-C02A
with coating and/or extrusion A11-C02C
with irradiation A11-C02B
with moulding and/or foaming A11-C02D
Crotonates
(co)polymers A04-F07
monomer A01-D10
Crotonic acid E10-C04
(co)polymers A04-F05
monomer A01-D08
Crowns, dental A12-V02B
D08-A03
Crucible steel processing M24-B02A
Crucibles for glass manufacture L01-C05
Crude oil
drilling for H01-B
exploration for H01-A
production techniques H01-D
rotary drilling H01-B03
slim hole drilling H01-B02
testing H01-E03
transfer of H01-X01
Crushing J02-B
accessories J02-B03
plant J02-B01
process J02-B02
Crustaceans B04-P01C
C04-P01C
Crustacicide B14-B04
C14-B04
Crystal forms B12-M11H2
C12-M11H2
Crystallisable glass
applications L01-K03
composition L01-A08
manufacture L01-K02
Crystallisation A11-B02+
B11-B
C11-B
E11-Q
J01-B
Crystallisation, water treatment by D04-A01C
Crystals, liquid A12-L03B
G04-B
Crystals, single J04-A04
semiconductors L04-B
Culture apparatus (micro-biological) D05-H02
Culture, cell or tissue D05-H08
Culture, media D05-H01
agricultural A12-W04B
C12-N08
microbiological D05-H01
Culture,media
agricultural C14-T01
Culturing bacteria A12-W11L
B11-A
C11-A
D05-A
D05-H
Cumyl peroxide
crosslinker for addition and ethylenically unsaturated polymers A08-C05
crosslinker for other polymers A08-D
polymerisation catalyst A02-A01
redox polymerisation catalyst A02-A03
Cuprammonium rayon A03-A05+
F01-D06B
Cupric, cuprous - see Copper
Cups A12-D03
Curds and whey separation D03-B02
Curds production in milk D03-B01
Cure retarders for polymers A08-C06
A08-D+
Curing agents - see Crosslinking
Curing of concrete articles L02-D04
Curing of polymers A11-C02+
Curium compounds B05-A04
C05-A04
inorganic E35-R
organic E05-Q
Curling of fibres and yarns F01-H04+
Curtain rails A12-R02A
Curtains A12-D01
F04-D03
Cutlery A12-D03
Cutting
bakery products after cooking D01-A06
ceramics L02-A
fabrics F03-K03
fabrics for clothing F04-F01
food D03-K05
glass
glass fibre, optical L01-F03H
glass, flat L01-G07
glass, non-flat L01-G08
plastics A11-A05+
polymers A11-A05+
polymers, films, fabrics A11-A05C
polymers, for scrap recovery A11-C03A
polymers, into granules A11-A04
polymers, recesses, grooves A11-A05B
polymers, tubes and tyres A11-A05A
rocks L02-A
sliver to staple F01-F
threads in sewing F02-F01B2
Cutting oils, emulsions H08-D04
Cutting tools
ceramic oxide L02-G08
cermet L02-J01B
Cutting, electric M23-D
arc M23-D01
electron beam M23-D04
electroslag welding M23-D07
induction heating M23-D03
laser beam M23-D05
plasma arc M23-D01
resistance welding M23-D02
spark erosion M23-D06
Cutting, flame M23-C
Cyanamides, inorganic B05-C03
C05-C03
E32-B
Cyanates inorganic E32-B
removal from water D04-B07A
Cyanates organic B10-A14
C10-A14
E10-A14
E10-A14A
E10-A14B
Cyanides inorganic
removal from water D04-B07A
Cyanides, inorganic B05-C03
C05-C03
E32-B
Cyanides, organic B10-A15
C10-A15
E10-A15
Cyanine spectral sensitisers
photographic G06-H07A
Cyanoacrolein E10-A15
Cyanoacrylamide E10-A15
Cyanoacrylates E10-A15
(co)polymers A04-D
monomer A01-D04
A01-D10
Cyanoacrylic acid E10-A15
(co)polymers A04-D
monomer A01-D04
A01-D08
Cyanoacrylonitrile E10-A15
(co)polymers A04-D
monomer A01-D04
Cyanogen B05-C03
C05-C03
E32-B
Cyanurate, triallyl E07-D13
(co)polymers A04-A03
monomer A01-B03
Cyanuric acid E07-D13
Cyclic ethers
(co)polymers A05-H+
condensants excluding epoxides A01-E08
epoxides condensants A01-E07

Cyclic peptides B04-C01H C04-C01H
Cyclic siloxanes condensants/ monomers A01-A03
Cyclic thioethers
(co)polymers A05-J05
condensants A01-E08
Cyclisation (process) B11-C01 C11-C01
catalyzed process N07-F07
chemical process E11-A01
reaction apparatus E11-A01
of polymer A10-E14
Cyclised polymer A10-E14
Cycloaliphatic - see also Alicyclic
Cycloaliphatic dicarboxylic acid(s)
production E10-C02C1A
use E10-C02C2A
Cycloaliphatic epoxy resins A05-A05
Cycloaliphatic hydrocarbons
diolefinic E10-J02A E10-J02A1 E10-J02A2
(co)polymers A04-B
monomer A01-C05
Cycloaliphatic hydrocarbons
monoolefinic E10-J02A E10-J02A1 E10-J02A2
(co)polymers A04-G
monomer A01-D13
Cycloaliphatic polyepoxides A05-A05
Cycloalkane B10-J02 C10-J02 E10-J02A E10-J02A1 E10-J02A2
Cycloalkene B10-J02 C10-J02 E10-J02A E10-J02A1 E10-J02A2
(co)polymers A04-G
monomer A01-D13
Cycloalkyne B10-J01 C10-J01 E10-J01
(co)polymers A04-A02
monomer A01-B02
production E10-J01A
use E10-J01B
Cyclodextrin A03-A B04-C02B1 C04-C02B1 D06-H02
Cyclohexane dimethanol condensant E10-E04J1 A01-E14
Cyclohexanone peroxide
crosslinker for other polymers A08-D
crosslinker for unsaturated /addition polymers A08-C05
polymerisation catalyst A02-A01
redox polymerisation catalyst A02-A03
Cycloheximide B02-C01 C02-C01
1,4-Cyclohexyl dimethanol condensant E10-E04J1 A01-E14
Cyclohexyl methacrylate
(co)polymers E10-G02 A04-F06+
monomer A01-D10B
Cyclone J01-L02
Cyclopentadiene E10-J02A E10-J02A1 E10-J02A2
(co)polymers A04-B
monomer A01-C05
Cyclosporin B02-C01
Cylinders, glass, formation of L01-F02
Cystic firbrosis B14-K01
Cystitis B14-N07B C14-N07B
Cytidine B04-B03A C04-B03A
Cytidylic acid B04-B03B C04-B03B
Cytochrome P450 B04-L03C C04-L03C
Cytoprotective C14-H01B
Cytosine B04-B03A C04-B03A
Cytostatic B14-H01B C14-H01B
Cytoskeletal protein B04-N06 C04-N06

D

Dacron A05-E04+ F01-D04A
Dactinomycin (actinomycin) B02-A C02-A
Dammar A03-C02
Dandruff treatment B14-N17E C14-N17E
Data storage units L03-H03A
Daunomycin B02-D C02-D
Deactivators for polymerisation catalysts, controllers A02-C
Deaerating boiler feed water D04-A03B
Dealkylation (petroleum refining) H04-E09
Deamination E11-G07
Deasphalting (petroleum refining) H04-A08
Deburring of plastics articles A11-A05B
Decaffeinated or decaffeinating coffee D03-D01B
Decaffeinated or decaffeinating tea D03-D02B
Decalcomanias (decals) A12-W07F1 F03-F27 G05-F01 L02-A07
Decanedioic acid E10-C02D E10-C02D2
condensant A01-E12
Decarboxylase agonist B14-L01A4 C14-L01A4
Decarboxylase inhibitor B14-D08 C14-D08
Decarburising ferrous
melts M24-C06
metal M24-D05
Decatising fabrics F03-A02
Dechlorinated/dechlorination A10-E04
Decongestant B12-K05 B14-K01E C12-K05 C14-K01E
Decontamination (radioactivity) K07-A03
Decorating
ceramics or concrete L02-A07
glass L01-G09
refractories L02-A07
textiles F03-H
Decorative coatings on concrete L02-D14P
Decorative laminates production A11-B09B

Decorative laminates, board A12-A04A
Decyclization
catalytic N07-F08
ring opening reaction process E11-A02
ring opening reaction apparatus E11-A02
Deep drawing
polymers A11-B08+
sheet metal M21-E03
Deep-relief printing plates G05-A02
Defectoscopy G04-B09
Deflashing of polymer (mouldings) A11-A05B
Defoaming agents for
detergents D11-B08
polymers A08-S03
Defoliants B12-P02
C12-P02
C14-U01A
Defrosting foodstuff D03-K12
Degassing
ferrous melts M24-C
liquids J01-D02
non-ferrous melts M25-F
polymers A11-A
solids J01-G05
Degradation of polymers A10-E05+
B11-C01
C11-C01
E11-C
Degraded polymers A10-E05+
Degrading fibres to improve properties F03-C08
Degreasing compositions G04-B08
Degreasing metals M12-B01
Degutting fish D02-A02
Dehalogenated/ dehalogenation of polymers A10-E04
Dehalogenation reaction E11-G04
Dehalogenation (process) for petroleum refining H04-E14
Dehumidification J01-E01A
Dehydrating oil well effluent H01-E01
Dehydrating sludge from waste water D04-B10
Dehydration E11-G05
Dehydrogenase
agonists B14-L01A1
C14-L01A1
inhibitors B14-D05D
C14-D05D
Dehydrogenases B04-L03D
C04-L03D
Dehydrogenated/ dehydrogenation of polymers A10-E11
Dehydrogenation (process) B11-C01
C11-C01
E11-E
for petroleum refining H04-E03
of carbon-carbon (C-C) bonds E11-E02
of carbon-carbon (C-C) bonds (catalytic) N07-C02
other than of carbon-carbon (C-C) bonds (catalytic) N07-C03
Dehydrohalogenated/ dehydrohalogenation of polymers A10-E04
Dehydrohalogenation reaction E11-G04
Dehydroxylation E11-G06
Deicing compositions G04-B05
Delay lines L03-G01
Delayed release B12-M10B
C12-M10B
Delivery of molten glass L01-C04
Delrin ® A05-H02+
Delustrants for polymers
inorganic A08-E02
organic A08-E03C
Demetallisation (petroleum refining) H04-A02
Demineralisation of water D04-B07G
Demisting compositions G04-B05
Demyelinating disease treatment B14-S01
C14-S01
Dendrimer B04-C03E
C04-C03E
Denitrification (petroleum refining) H04-A03
Denitrification inhibitors B12-N08
C12-N08
C14-T01D
Density control agents for explosives K04-G
Dental A12-V
B12-L03
B14-N06
C12-L03
C14-N06
D08-A
adhesives A12-V02B
D08-A02
cements A12-V02B
D08-A02
fillings A12-V02B
D08-A01
floss A12-V04B
D08-B08E
instruments D08-A04
porcelain L02-G03A
prostheses A12-V02B
D08-A01
strips D08-B08D
cleaning device D08-A04A
Dental toilet requisites A12-V04B
D08-B08
Dental use of specific polymer types
(meth)acrylate (co)polymers A04-F06E5
cellulose ethers A03-A04A1
polyamides A05-F01E3
polyethylene A04-G02E3
polypropylene A04-G03E1
PVA A10-E09B2
silicones A06-A00E3
Dentistry preparations D08-A
Dentrifices A12-V04B
B12-M02A
C12-M02A
D08-B08A
Dentures A12-V02B
D08-A03
Deodorants
air D09-B
body B12-L01
B14-R03
C12-L01
C14-R03
D08-B09
candles D09-B02
devices D09-B01
polymer A08-M04
textile treatment F03-C09
Deodorization J01-E01B
Deoiling (petroleum refining) H04-A09
Deoxidising ferrous melts M24-C02
Deoxygenation of water D04-A03B
Deoxyribonucleic acids B04-B04A1
B04-E01
C04-B04A1
C04-E01
Deparaffination H04-A10A
Dephosphorising ferrous melts M24-C01
Depilatories B12-L02
B14-R01
C12-L02
C14-R01
D08-B07
Depolymerisation, (process) A10-E05+
B11-C01
C11-C01
E11-C
agents A08-M08
carbonisation A10-E05B
catalysts A08-M08
pyrolysis of polymer waste A10-E05A
to monomers/ oligomers A10-E05C
Depolymerised polymers A10-E05+
Deposit prevention in heat exchangers J08-D02
Dermatitis treatment B12-A07
B14-N17C
C12-A07
C14-N17C
Derris extracts B04-A07B
C04-A07B
Desalination of brine or sea water D04-B07F
Desalting (crude oil) H01-E01
Descaling of metal
mechanical M21-N
pickling M12-A
pickling, apparatus M12-A04
pickling, disposal/ regeneration of solutions/salt mixtures M12-A03
pickling, inhibitors M12-A02
pickling, solutions/salts mixture M12-A01

Desensitisers, electron acceptors, photographic G06-H06
Desiccants agricultural B12-P02 C12-P02 C14-U01A
Designing
knitted fabrics F02-B01
woven fabrics F02-A02
Desizing of fabrics F03-B
Desoldering apparatus M23-A03
Desulphurising
catalytic N07-F11
ferrous melts M24-C01
petroleum refining H04-A01
water D04-B07D
Detection, determination of catalysts N06-D
Detection, general E11-Q J04-C
of NBC agents K02-A04
see also compounds detected and detecting compounds
Detectors
electrical A12-E13
fire, smoke, burglar A12-R02
Detergents
additives (non surface active) D11-B
bleaches for D11-B01
fibres or fabrics use A12-W12A
formulation D11-D
fuel additives H06-D03
granular laundry compositions D11-D08
laundering textiles use F03-J03
lubricant additives H07-G03
petroleum products H08-E05
polymer use A12-W12+
production by sulphonation D11-D05
special materials and methods D11-D
special use of D11-D01
surface active, non-soap D11-A
thickeners D11-B24
testing D11-D
without tensides D11-F
Determination, general - see also compounds determined and determining compounds E11-Q
Detonators K04-B01
Detoxification treatment B12-J05 C12-J05
for alcoholics B14-M01A C14-M01A
for drug addicts B14-M01C C14-M01C
general B14-M01 C14-M01
Deuterium (production) B05-A04A B05-C08 C05-A04A C05-C08 E31-A K05-B05A
Deuterium compounds B05-A04A B05-C08 C05-A04A C05-C08
inorganic E31 E32 E33 E34 E35
organic E05-R
Developer stabilisers (photographic) G06-H03
Development (photographic)
accelerators G06-H12
black and white silver halide G06-G01
colour G06-G10
nuclei G06-A04
of photosensitive resin systems G06-G17
polymer use in A12-L02F
restrainers G06-H13
Devices for animal body (use on or in) B11-C04 C11-C04
Devices for drying food D03-K09
Devices for deodorising/ sterilising D09-B01
Devolatilisation of polymers A10-G01A
Dewatering on papermaking machines F05-A04B
Dewatering sludge D04-B10A
Dewaxing (petroleum refining) H04-A10
Dextrans A03-A+ B04-C02C C04-C02C D06-H01
Dextrins A03-A+ B04-C02B C04-C02B D06-H
Diabetic dietary foods D03-H01T5
Diabetes treatment B12-H05 B14-S04 C12-H05 C14-S04
Diabetes monitoring type II diabetes J04-B01B1 B14-S04A C14-S04A
Diacetone acrylamide (co)polymers A04-D04+
monomer A01-D05 A01-D06
Diacrylate polymer paints G02-A02C4
Diagnosis A12-V03C2 B12-K04 C12-K04
Diagnosis of diseases in animals B12-K04A C12-K04A B12-K04G C12-K04G
Dialkyl orthophosphate (or salt) B05-B01P C05-B01P E05-G09C
Dialkylaminoalkyl (meth) acrylates E10-B02E
(co)polymers A04-D09
monomer A01-D07 A01-D10B
Diallyl amine E10-B04B
(co)polymers A04-B
monomer A01-C04
Diallyl ethers E10-H01
(co)polymers A04-B
monomer A01-C04
Diallyl fumarate E10-G02
(co)polymers A04-A03
monomer A01-B03
Diallyl glycol carbonate E10-A11B E10-A11B1 E10-A11B2
(co)polymers A04-B09
monomer A01-C01
Diallyl maleate E10-G02
(co)polymers A04-A03
monomer A01-B03
Diallyl phthalate E10-G02
(co)polymers A04-B09
monomer A01-C01
production E10-G02A E10-G02A1
use E10-G02F E10-G02F1
Dialysis J01-C03B
in test B11-C08D3 C11-C08D3
membranes A12-W11A D04-A01D
water D04-A01E
with hollow fibres F04-E04
Diamine, hexamethylene condensant E10-B01E A01-E05
Diamines - see also Polyamine B10-B01 C10-B01 E10-B01
condensants A01-E05
Diaminotriazines condensants E07-D13 A01-E01
Diamond (production) E31-N03A L02-F05
Diamond abrasives L02-F05
Diapers A12-V03A D09-C F04-C01A
from cellulose fibres, paper making pulp F05-A07
Diaphragms B14-P01B C14-P01B
contraceptives B12-K03 C12-K03
mechanical engineering A12-H07
Diarrhea treatment B12-J04 B14-E02 C12-J04 C14-E02

Diarylmethane dyes E25-D
Diatomaceous refractories L02-E02
Diatomite B04-D02
C04-D02
fillers A08-R06A
Diazete B07-D07
C07-D07
E07-D07
Diazo compounds B10-A16
C10-A16
E10-A16
E10-A16A
E10-A16B
Diazo element (radiation sensitive system) G06-F02
Diazo processing G06-G09
Diazonium compounds B10-A16
C10-A16
E10-A16
E10-A16A
E10-A16B
E21-E
Dibenz(b,f)azepine B06-D12
C06-D12
E06-D12
Dibenzazepine (excluding dibenz (b,f)azepine) B06-D13
C06-D13
E06-D13
Dibenzocycloheptane B08-D01
C08-D01
E08-D01
Dibenzodiazepine B06-D16
C06-D16
E06-D16
Dibenzodiazocine B06-D16
C06-D16
E06-D16
Dibenzofuran B06-A03
C06-A03
E06-A03
Dibenzopyran B06-A03
C06-A03
E06-A03
Dibenzothiophene B06-B02
C06-B02
E06-B02
Dibenzoyl peroxide E10-A04
for crosslinking addition polymers A08-C05
for crosslinking other polymers A08-D
polymerisation catalyst A02-A01
redox catalyst A02-A03
Dibutyl adipate E10-G02
plasticiser A08-P04
(Di)butyl maleate E10-G02
(co)polymers A04-F07
monomer A01-D10
A01-E12
Dicarboxylic acid - see Polycarboxylic acid
Dicarboxylic acid, aliphatic derived saturated polyesters A05-E02
Dicarboxylic acids and diisocyanates derived polyamides A05-F
Dichlorobenzene E10-H02E
E10-H03C1
E10-H04C1
condensant A01-E
Di(chloromethyl) oxacyclobutane E07-A03
(co)polymers A05-H
monomer A01-E08
1,1-Dichloroethylene E10-H02G
E10-H03C3
E10-H04C3
(co)polymers A04-E07
homopolymer A04-E06
monomer A01-D12
Di(chlorophenyl)sulphone E10-A10B
condensant A01-E
Dicing semiconductor wafers L04-C07E
Dicotyledons B04-A08C2
C04-A08C2
Dicumyl peroxide E10-A04
catalyst for polymerisation A02-A01
crosslinker for addition polymers A08-C05
crosslinker for other polymer A08-D
redox catalyst for polymerisation A02-A03
Dicyandiamide E10-A15
condensant A01-E03
Dicyandiamide-formaldehyde resin A05-B
Dicyclopentadiene E09-D02
(co)polymers A04-B
monomer A01-C05
Dicyclopentadiene dioxide A05-A05
E06-A03
Die plates for forming fibres F01-C01
Dielectric L03-B03
ceramic oxides L02-G07C
inorganic compositions L03-B03E
material L03-B03
organic compositions L03-B03F
polymer properties A09-A03
Diene polymer coatings A12-B01C
G02-A02D1
Diene polymer polyol polyurethane A05-G
Diene rubbers A04-B+
based adhesives/binders A12-A05A
G03-B02B
Dies
die casting dies M22-G03D
forging, hammer and pressing dies M21-J02
metal casting dies M22-G03G3
metal drawing dies M21-B01B
metal extrusion dies M21-B02C
rolling dies M21-A02
Dietary fibre D03-H01T1
Dietary foods e.g. diabetic, gluten free D03-H01T5
Diesel fuel H06-B04
Dietetics B12-J01
B14-E12
C12-J01
C14-E12
Diethanolamine E10-B03B
condensant A01-E05
A01-E14
Diethyl aluminium chloride E05-B02
catalyst A02-A07+
N05-A
Diethyl terephthalate E10-G02
condensant A01-E11
Diethylene glycol E10-E04H1
condensant A01-E14
Diethylene triamine E10-B01E
condensant A01-E05
Diffusion apparatus for semiconductor processing L04-D06
Diffusion bonding M23-E
Diffusion coating metal M13-D
using gas M13-D03
using liquid M13-D02
using solid M13-D01
Diffusion doping of semiconductor layers L03-C02D
Diffusion transfer photographic systems
multicolour G06-C09+
single colour G06-C10+
Digested material treatment before paper formation F05-A03
Digesting pretreatment in papermaking F05-A02A
Diglycidyl carboxylates A05-A04
E07-A03
Diglycidyl derivatives of amines A05-A04
E07-A03
Diglycidyl ether of bisphenol A A05-A02
E07-A03
polyisocyanate based polyoxazolidone A05-A02
A05-J02
Dihaloamines (organic) E10-A02
Dihydric alcohols condensants A01-E14
Dihydric phenols condensants A01-E13
Dihydrofuran B07-A01
C07-A01
E07-A01
Dihydropyran B07-A03
C07-A03
E07-A03
Dihydropyridine B07-D04D
C07-D04D
E07-D04D
Dihydroxy benzophenone condensants E10-E02D2
A01-E13
Dihydroxy diphenyl ether E10-E02D2
Dihydroxy diphenyl ketone condensants E10-E02D2
A01-E13
Dihydroxy diphenyl methane condensants E10-E02D4
A01-E13

Dihydroxy diphenyl propane condensants E10-E02D4 A01-E13
Dihydroxy diphenyl sulphide condensants E10-E02D1 A01-E13
Dihydroxy diphenyl sulphone condensants E10-A10B A01-E13
Dihydroxydiphenyl ether A01-E13
Diisobutene (co)polymers A04-G monomer A01-D13
Diisobutylene (co)polymers A04-G monomer A01-D13
Diisocyanate + diacids derived polyamides A05-F
Diisocyanates E10-A14 E10-A14A E10-A14B condensants A01-E02
Dilauroyl peroxide E10-A04 catalyst for polymerisation A02-A01 crosslinker for addition polymers A08-C05 crosslinker for other polymers A08-D redox catalyst A02-A03
Diluent for polymers A08-S02 reactive A08-P
Dimensional stabilisation of fabrics, chemical treatment F03-C04
Dimerisation A10-B08 E11-F01A equipment A10-B01
Dimerised fatty acids condensants A01-E12
Dimethano(1,4:5,8)-naphthalene B09-C02 C09-C02 E09-C02
Dimethyl formamide E10-D03D
Dimethyl phthalate E10-G02 condensant A01-E11
Dimethyl polysiloxane A06-A+
Dimethyl vinyl ethynyl carbinol monomer A01-B01
Dimethylaminomethyl methacrylate E10-B02E (co)polymers A04-D09 monomer A01-D07 A01-D10B
Dimethylol urea A05-B03 E10-A13B E10-A13B1 E10-A13B2
Dinitrosopenta- methylene tetramine blowing agent A08-B03
Dioctyl phthalate E10-G02 plasticiser A08-P02
Diodes rectifiers L04-E02 semiconductor L04-E03A
Diolefinic (co)polymers A04-B+
Diolefinic monomers A01-C+
Diols condensants A01-E14
Dioxane E07-A04
Dip coating with polymers A11-B05A
Dip for tyre cords non-polymeric A08-M01+ polymeric A12-T01C
Dip moulding/ forming of polymers A11-B04B
Diphenyl methane diamine E10-B01B condensants A01-E05
Diphenyl methane diisocyanate E10-A14 E10-A14A E10-A14B condensants A01-E02
Diphenylol ether E10-E02D2 condensants A01-E13
Diphenylol ketone E10-E02D2 condensants A01-E13
Diphenylol methane E10-E02D4 condensants A01-E13
Diphenylol sulphide E10-E02D1 condensants A01-E13
Diphenylol sulphone E10-A10B condensants A01-E13
Dipping, coating with polymer by A11-B05A
Dipping, polymer articles formed by A11-B04B
Dipropylene glycol E10-E04H1 condensant A01-E14
Direct contact heat exchangers J08-B
Direct contact trickle coolers J08-B01
Direct dyes for dying/ printing fibres F03-F20
Direct electron recording G06-D03
Direct positive materials for photosensitive systems G06-C05
Disaccharides (non-heterocyclic known structure) E10-A07
Disaccharides (unknown structure or general) B04-D01 C04-D01 D06-G
Discharge devices, iron and steel production M24-A05C
Discharge dyeing/ printing of fibres F03-F28
Discharge tubes or lamps L03-C
Discharge, electric chemical modification of polymers by A10-E10 surface treatment of polymers A11-C04E
Discontinuous paper/ cardboard sheets formation F05-A04D
Discs floppy A12-E08A2 L03-B05B gramophone A12-W01 magnetic recording A12-E08A2 L03-B05B magneto-optical G06-D07 optical A12-L03C G06-D07 video A12-W01A
Dishwasher detergents D11-D01A
Dishwasher rinse aids D11-D07E
Disinfectants B12-A01 B14-A01 C12-A01 C14-A01 D09-A01 polymer additives A08-M02
Disinfection aseptic environment D09-B03 chemical methods D09-A01 candles D09-B02 of air D09-B of materials (other than food) D09-A physical methods D09-A02
Disintegrating plant J02-B01 processes J02-B02
Dispensers (excluding syringes) B11-C03 C11-C03 foodstuffs D03-K10
Dispersants J02-A03 for dyes/pigments for polymers A08-M01A
Disperse dyes for dyeing printing fibres F03-F18
Dispersing J02-A agents B12-M09 C12-M09 J02-A03C apparatus J02-A03B agents for dyes/pigments for polymers A08-M01A processes J02-A03A
Dispersion coating process A11-B05D
Dispersion hardening of metals by casting method M22-G03K heat treatment - see Heat treatment physical method (ferrous metal) M24-D06 physical method (non-ferrous metal) M29-D powder metallurgy M22-H03F
Dispersion, aqueous A07-B+
Dispersions, polymer A07-B+
Displacement techniques, oil wells A12-W10B
Displacing liquids by another fluid J01-C02
Display devices L03-G05 electrochromic L03-G05C electrowetting L03-G05J LED display L03-G05K liquid crystal A12-L03B L03-G05A

liquid crystal, components for L03-G05B
Displays - (see also Advertising) A12-W03
Disposal of old tyres A12-T01D
Dissolution, pore forming by A11-B06D
Dissolving out a component (purification of polymers) A10-G01+
Dissolving/degrading treatment for fabrics F03-C08
Distillation J01-A02A
Apparatus J01-A02A3
J01-A02A4
columns J01-A02A2
extractive J01-A02A1
fermented solutions D05-D
fuels H06-B08
of polymers A10-G01+
petroleum processing H02-A
water treatment by D04-A01A
Distomiasis treatment B12-B06
B14-B03
C12-B06
C14-B03
Distribution of electricity L03-H01
Distributors for use in forming fibres F01-C01
Disulphides (organic) B10-A04
C10-A04
E10-A04
Dithiocarbamates
accelerators for crosslinking A08-C03
A08-D04
Dithiocarbamic acid, or ester (organic) B10-A12A
C10-A12A
E10-A12A
E10-A12A1
E10-A12A2
Dithiocarbonic acid ester B10-A11A
C10-A11A
E10-A11A
E10-A11A1
E10-A11A2
Dithiole B07-B03
C07-B03
E07-B03
Diuretics B12-G03
B14-N08
C12-G03
C14-N08
Divided (powdery), forms of polymers A12-S09+
production of A11-A04
Divinyl benzene E10-J02B
(co)polymers A04-B10
monomer A01-C03
Divinyl benzene-styrene copolymer A04-B10
A04-C04+
Divinyl ether E10-H01
(co)polymers A04-B
monomer A01-C04
Divinyl toluene E10-J02B
(co)polymers A04-B10
monomer A01-C03
DMC A12-S
DNA - see also Nucleic acid amplification method D05-H18B
DNA/RNA B04-B04A1
C04-B04A1
antisense sequences B04-E06
C04-E06
D05-H12D2
biosynthesis of D05-C07
cDNA D05-H12
DNA/RNA chip B11-C08E6
C11-C08E6
coding sequences (altered) B04-E02
C04-E02
coding sequences (other) B04-E03
C04-E03
cosmids B04-E08
C04-E08
DNAzyme B04-E07B
C04-E07B
D05-H12D7
DNA probe test method B11-C08E5
C11-C08E5
DNA probe test reagent B12-K04F
C12-K04F
fusion genes B04-E02H
B04-E03H
C04-E02H
C04-E03H
D05-H12C
general B04-E01
C04-E01
D05-H12
hybridisation test method B11-C08E5
C11-C08E5
B11-C08F8
C11-C08F8
hybridisation test reagent B12-K04F
C12-K04F
micro RNA B04-E07D
C04-E07D
D05-H12D8B
mitochondrial B04-E07
C04-E07
mutant sequences B04-E02+
B04-E02+
D05-H12B
non-coding sequences B04-E07
C04-E07
D05-H12D
oligonucleotides B04-B03C
C04-B03C
oncogene B04-E02G
B04-E03G
C04-E02G
C04-E03G
plasmids B04-E08
C04-E08
polymerase, for use in genetic engineering D05-H19B
polymerases B04-L04A
C04-L04A
primers B04-E05
C04-E05
D05-H12D1
probes B04-E05
C04-E05
D05-H12D1
regulation sequences B04-E04
C04-E04
D05-H12D5
ribosomal B04-E07
C04-E07
ribozyme B04-E07A
C04-E07A
D05-H12D4
sequencing method B11-C08E4
C11-C08E4
B11-C08F7A
C11-C08F7A
D05-H18A
short interfering RNA B04-E07C
C04-E07C
D05-H12D8A
small hairpin RNA B04-E07E
C04-E07E
D05-H12D8C
transfer RNA B04-E07
C04-E07
transgenes B04-E02+
C04-E02+
D05-H12C
vectors B04-E08
C04-E08
D05-H12E
wild-type coding sequences B04-E03+
C04-E03+
D05-H12A
DNA/RNA polymerase
agonists B14-L01A2
C14-L01A2
inhibitors B14-D06A
C14-D06A
Dobbys F02-A02
Doctors for papermaking machines F05-A05
Dodecylbenzene sulphonate E10-A09B
Dodecyllactam condensant A01-E04
Doffing of bobbins F01-H03C
Dog bones (synthetic) D03-G06
Dolomite preparation L02-B02
Domestic C14-X
Donning of bobbins F01-H03C
Doors, polymer use in
building A12-R02A
glazing A12-R04
transport A12-T04+
DOP plasticiser for polymers A08-P02
Dopaminergic B14-J02C2
C14-J02C2
Doping
glass, surface doping L01-G05A
Doping semiconductors
layers, and regions – general L04-C02
layers, by diffusion L04-C02D
layers, by direct contact with liquid or solid L04-C02C
layers, by ion implantation L04-C02B
layers, simultaneously with layer formation L04-C02A
single crystals L04-B03

Dosimeters A12-L
  personal K07-A01
Dosing in polymer processing A11-A
Dots, magnetic L03-B06
Doubling of fibres, yarn F01-H01
Dough D01-B
  additives D01-B01
  containers for D01-A04
  cutting and dispensing equipment D01-A02
  handling D01-A
  mixing equipment D01-A05
  shaping D01-A02
  transporting equipment D01-A03
Dough moulding compounds A12-S
Downhole protector H01-B03C5
Downy mildew C14-A06P
Doxorubicin B02-D
  C02-D
Doxycycline B02-T
  C02-T
Drafting yarn F01-F02
Drain cleaners D11-D01E
Draperies A12-D01
  F04-D03
Draw texturing of fibres F01-C06
  F01-H04+
Drawing
  artificial filaments F01-C06
  equipment M21-B01B
  glass from melts L01-D01
  metal sheets, wires, rods, tubes or profiles M21-B01
  optical glass fibres L01-F03G
  polymers A11-B02+
  processes M21-B01A
  slivers F01-F02
  texturing yarns only by F01-H04C1
Dresses of fabric A12-C03
  F04-C03
Dressing of fibres, yarns F01-H06+
Dressings for wounds A12-V03A
  D09-C+
  F04-E04
Drier sections, of papermaking machines F05-A04C
Driers for paints G02-B04
Driers for textiles F03-J01
Drilling fluids A12-W10A
  H01-B06
  additives H01-B06C
  oil-based H01-B06B
  water-based H01-B06A
Drilling mud A12-W10A
  H01-B06
  additives H01-B06C
  mixing and processing H01-B03A2
  oil-based H01-B06B
  water-based H01-B06A
Drilling of polymers A11-A05A
Drilling, methods or equipment (oil and gas) H01-B
Drip-dry finishes for textiles F03-C04
Drive fluids for oil wells, polymer use A12-W10B
Drug combination B14-S18
  C14-S18
Drug conjugates general B04-Q
  C04-Q
  Antibody drug conjugate B04-Q01
  C04-Q01
  Nucleic acid-drug conjugates B04-Q04
  C04-Q04
  Oligonucleotide-drug conjugates B04-Q04A
  C04-Q04A
  Other protein/peptide drug conjugates B04-Q02
  C04-Q02
  Polynucleotide-drug conjugates B04-Q04B
  C04-Q04B
  Synthetic polymer-drug conjugates B04-Q03
  C04-Q03
Drug design by computer modelling B11-C08H
  C11-C08H
Drug screening B11-C08
  C11-C08
Drug testing B12-K04E
  C12-K04E
  drug discovery B12-K04E1
  C12-K04E1
  other drug testing B12-K04E3
  C12-K04E3
Drums (containers) and drum linings A12-P05
Drums (musical) A12-W08
Dry cleaning textiles F03-J04
Dry etching semiconductors L04-C07B
Dry powder inhaler B12-M01B1
  C12-M01B1
Dry spinning A11-B15C
  F01-C08A
Dry toning, electrophotographic G06-G05
Dry-laying non-woven fabrics F02-C02
Drying
  agents (siccative) G02-B04
  apparatus or machines J08-G
  ceramics or refractories L02-A03
  coffee D03-D01D
  compression J08-F05
  fabrics (laundering) F03-J01
  fabrics (non-laundering) F03-A02
  food (devices) D03-K09
  gases J01-E01
  general applications J08-H
  hot blast M24-A05E1
  in polymer processing A11-A02+
  oils G02-B03
  oils, containing polyesters A05-E08
  processes J08-F
  processes, photographic G06-E05
  purification of polymers by A10-G01A
  sludge from water D04-B10
  tea D03-D02D
  through air drying J08-H02
  wood F05-B
Dual-in-line packaging L04-F05
Dual release devices B12-M10A6
  C12-M10A6
Duchenne muscular dystrophy B14-J05E
  C14-J05E
Durable press fibre/ fabric treatment
  non-resinous A12-S05R
  F03-C04
  resinous A12-G02
  F03-C04
Dusting agents for polymers A08-M07
Dusting powders B12-M02E
  C12-M02E
  E12-A07
Dwarfism treatment B14-S02
  C14-S02
Dye
  addition to paper, cardboard F05-A06D
  auxiliaries for fibres F03-F32
  composition containing polymer A12-W11H
  destruction colour
  material for photosensitive systems G06-C03
  dispersants for fabrics/fibres F03-F32
  dispersants for polymers A08-M01A
  formulation E27-A02
  general E25
  LCD L03-G05B3
  levellers for fabrics/fibres F03-F32
  levellers for polymers A08-M01A
  morphology of E27-B02
  precursors E26
  precursors, couplers (azo or oxidation) E26-A
  precursors, lactone, lactam, sultone, sultam, photochromic, or spiropyran E26-B
  precursors, others E26-C
  receptiveness, improving agents for polymers A08-M01A
  receptiveness, properties of polymers A09-A06
  receptiveness, treatment for fabrics/fibres F03-C06
  release diffusion transfer materials, multicolour G06-C09A
  release diffusion transfer materials, single colour G06-C10A
  removal from water D04-B06B
  treatment (of) E11-Q
Dye type A08-E03+
  F03-F+
  acid, anionic F03-F21
  anthraquinone A08-E03B
  E22
  azo A08-E03A+
  E21
  azo, dis- or poly- A08-E03A3
  azo, mono-, water insoluble A08-E03A2
  azo, mono-, water soluble A08-E03A1
  basic, cationic F03-F22

direct F03-F20
disperse F03-F18
fluorescent E24-A
fluorescent brightener A08-E03C
D11-B01
E24-A
F03-B01
general E25
leuco vat F03-F23
light sensitive, for radiation sensitive systems G06-F05
Luminescent containing metals E24-A06A
Luminescent general E24-A06
Luminescent heterocyclics E24-A06B
Luminescent others E24-A06C
macrocyclic E23
metal complex F03-F25
natural dye of unknown structure E25-F
optical brightener - see Fluorescent brightener
pigment for fibres, fabric F03-F17
pigment inorganic for polymers A08-E02
reactive organic for polymers A08-E04
F03-F19
special classes E24
sulphur F03-F24
vat F03-F23

Dyeability of polymers A09-A06

Dyed textiles, after-treatment(of) F03-F14

Dyeing
aids for polymers A08-M01A
apparatus F03-F01
auxiliaries for fabrics/fibres F03-F32
fabrics/fibres F03-F+
of polymers A11-A01+
of wood F05-B
processes, after-treatment(s) F03-F14
processes, cheese F03-F29
processes, cop F03-F29
processes, discharge F03-F28
processes, foam F03-F26
processes, general E11-R
F03-F+
processes, solvent F03-F13
processes, spin F03-F30
processes, transfer F03-F27
processes, warp F03-F29

Dyes for: (including Dyeing of)
acrylics F03-F05
animal substrates (e.g. silk wool) F03-F02
cellulose esters F03-F04
cellulose(ics) A12-S05N
F03-F03
F03-F09
crayons G02-A04B
fabrics/fibres F03-F+
filter(s) for light sensitive compositions G06-A02
food D03-H01E
hair D08-B06
inorganic fabrics/fibres F03-F12
metallic fabrics/fibres F03-F12
methacrylic fabrics/fibres F03-F05
paper F05-A06D
pencil leads G02-A04B
polyamides A12-S05N
F03-F06+
polyesters A12-S05N
F03-F07+
polymers A08-E+
polyolefins F03-F08
polyurethanes F03-F10
polyvinyl alcohol F03-F11
polyvinyl chloride F03-F11
printing inks
printing inks, general G02-A04B
printing inks, polymeric A12-W07E
regenerated celluloses F03-F09
screening light sensitive compositions G06-A02
spandex® fabrics/fibres F03-F10
textiles, of general application F03-F16+
vegetable substrates F03-F03
vinyl fabrics/fibres F03-F11

Dynamic modulus of polymers A09-A05

Dysentery treatment B12-B01
B14-E10D
C12-B01
C14-E10D

Dyskinesia treatment B12-E02
C12-E02

Dyslipidemia treatment B14-F06A
C14-F06A

Dysmenorrhea treatment B12-E09
B14-N14
C12-E09
C14-N14

Dyspepsia treatment B12-J03
B14-E01
C12-J03
C14-E01

Dyspnea treatment B12-K06
B14-K01
C12-K06
C14-K01

Dysprosium compounds B05-A03B
C05-A03B
catalysts N03-A02B
inorganic E34-E02B
organic E05-P

Dystonia treatment B12-E02
C12-E02

E

Ear preparations (general) B12-L04
B14-N02
C12-L04
C14-N02

Earth consolidation A12-A02
A12-W10C

Ebolavirus treatment B14-A02B
C14-A02B

Ecdysone B04-J16
C04-J16

Ectoparasite treatment B12-B04
B14-B02
C12-B04
C14-B02

Eczema treatment B12-A07
B14-N17
C12-A07
C14-N17

Edema treatment B12-G03
C12-G03
general B14-C03
C14-C03

Edge crimping of fibres F01-H04C

Edible fibres F04-G

Educational devices, models A12-F

Effluent treatment A12-W11+
E11-Q
aqueous D04-A
D04-B

Egg white B04-B04A6
B04-N02
B04-B04N1
C04-B04A6
C04-N02
B04-B04N1

Eggs (hen) B04-B04N1
C04-B04N1

Eggs and products preservation of D03-M
D03-A03

Einsteinium compounds B05-A04
C05-A04
inorganic E35-R
organic E05-Q

Ejection of polymer mouldings A11-C06

Elaiomycin B02-E
C02-E

Elastase B04-L05C
C04-L05C

Elastic (e.g. spandex) fibres A12-S05D

Elastic bands A12-P07

Elastin B04-N02
C04-N02

Elbows, artificial D09-C01D

Electrets L03-B03

Electric devices production photographically
A12-L02B2
G06-D06

Electric devices testing L03-X

Electric discharge
chemical processes A10-E10
polymerisation involving A10-B
A10-D+
surface treatment by A11-C04E
Electric discharged polymer, chemically modified A10-E10
Electric steels L03-B02A3
Electric welding and cutting M23-D
apparatus M23-D01B4
arc M23-D01
circuits M23-D01B3
electron beam M23-D04
electroslag welding M23-D07
induction heating M23-D03
laser beam M23-D05
plasma M23-D01
resistance welding M23-D02
spark erosion M23-D06
Electric well logging H01-A02A
Electrical
accumulators A12-E06+
drug administration device B12-M10F
C12-M10F
batteries A12-E06+
cable insulation A12-E02+
cable insulation compositions A12-E02A
capacitors A12-E07B
circuit components A12-E07+
coils A12-E08B
conductors A12-E02+
discharge B11-C01
C11-C01
E11-N
encapsulation A12-E04
epoxy resin use in A05-A01E2
fuel cells A12-E06+
L03-E04
glass, applications L01-L04
insulating cases or bodies A12-E05
insulating oils H08-D08
insulation tape A12-E03
insulation, foam use in A12-S04E
machining M23-D
magnetic tape, devices A12-E08A1
material, coating compositions for G02-A05B
polymer use in A12-E+
potting compounds A12-E04
production of hydrogen E31-A02A
properties A09-A03
A09-A04
transformers A12-E08B
wire insulation A12-E02
wire insulation compositions A12-E02A
wire insulation treatment of polymers A10-E10
Electrical engineering A12-E+
epoxy resin use in A05-A01E2
polyamide use in A05-F01E2
polyethylene use in A04-G02E4
polyurethane use in A05-G01E2
PVC use in A04-E02E1
reinforced polymer use in A12-S08D2
saturated polyester use in A05-E01D2
silicone use in A06-A00E2
Electricity generators, thermionic L03-E05
Electricity, applications to generation, conversion and distribution L03-H01
Electroconductivity agents A08-M09A
carbon-based A08-M09A1
Electro steel processing M24-B02D
Electro(in)organic, general L03
Electro-optical use A12-E11+
Electro-osmosis J03-D01
Electroacoustic A12-E12
Electrocardiograph equipment A12-E+
A12-V03C2
Electrocatalyst J04-E04D
Electrocatalytic process N07-G
Electroceuticals B11-C04K
C11-C04K
Electrochemical cells A12-E09
L03-E
Electrochemical machining M23-D06
Electrochemical processes or apparatus B11-C01
C11-C01
E11-N
J03-A
Electrochemical treatment of water D04-A01M
Electrochromic materials L03-G05C1
Electrochromic displays A12-E11A
L03-G05C2
Electrochromic dye precursors E26-B
Electrodecantation, purification by A10-G+
Electrodeposition
coating with polymer by A11-B05A
control systems M11-B07
electrolytes (disposal or recovery) M11-B06
laboratory methods for M11-B08
multilayer deposition M11-B02
of chromium M11-A01
of cobalt M11-A02
of copper M11-A03
of iron M11-A06A
of metals and alloys M11-A
of nickel M11-A02
of noble metals M11-A05
of zinc M11-A04
on difficult surfaces M11-B05
on printed circuits L03-H04E3
M11-B05A
on tubes, wires, etc. M11-B04
pretreatment of metallic substrates for M11-B09
special methods or chemical additives M11-B
thermal after-treatment M11-B03
Electrodes for
accumulators A12-E06A
batteries A12-E06A
L03-E01B
capacitors L03-B03G
discharge lamps or tubes, emissive L03-C02A
discharge lamps or tubes, non-emissive L03-C01
electrochemical cells A12-E09
electrolytic cells A12-E09
J03-B01
M28-C01
electrophoresis cells A12-E09
fuel cells A12-E06A
L03-E04B
melting, graphite arc L03-A02
primary or secondary cells L03-E01B
semiconductor devices A12-E07C
L04-C11C
welding M23-F
Electrodes, glass L03-A02
Electrodes, membrane L03-E04B2
Electrodes structure/materials L03-E05B2
Electrodes, target L03-C02A
Electrodialysis J03-D
purification of water D04-A01E
Electroerosion machining M23-D06
Electroforming M11-D
Electrography - see Electrophotographic
Electroless plating of metal M13-B
Electroluminescent displays L03-G05F
Electrolysis of fused electrolytes to produce metals or alloys M28-B
Electrolysis of solution to produce metals or alloys M28-A
Electrolytes (electrodeposition), disposal or recovery of M11-B06
Electrolytes,
for capacitor L03-B03H
for electrolytic cells J03-B05
for primary or secondary cells L03-E01C
Electrolytic
capacitors L03-B03A
cells A12-E09
J03-B02
M28-C
cleaning of metal M11-H01
coating of metal with non-metallic layer M11-F
construction and assembly of cells M28-C03
conversion layers M11-E
electrodes J03-B01
M28-C01
etching of metal M11-H02
general processes J03-B09
machining of metal M23-D06
metal treatment - control and testing M11-J
operating and servicing of cells M28-C02
polishing of metal M11-H02
polymerisation A10-B
A10-D06
production of composite metal coating M11-B11
production of porous metal or metal powder M28-D

production or refining of metal M28-F
recording G05-E
separators J03-B03
stripping of metallic layer or coatings M11-H02
Electromagnetic screening A12-E01A
Electron acceptors G06-H06
desensitisers G06-H06
for heat sensitive systems G06-F08A
Electron beam bombardment, radiation
chemical modification by A10-E10
crosslinking by A11-C02B
Electron beam welding and cutting M23-D04
Electron donors for heat sensitive systems G06-F08A
Electron exchange resins A12-M+
Electron Microscopy B11-C08G3
C11-C08G3
Electron sensitive resists A12-L02+
Electron, direct recording G06-D03
Electroneutral detergents D11-A04
Electronic
applications of glass L01-L04
ceramics, general L02-G07
circuitry, basic A12-E07+
L03-H02
components A12-E07+
L03-G
L03-J
Electro-optical device L03-G10F
Electrophoresis A12-E09
J03-C
tests B11-C08D1
C11-C08D1
Electrophoretic coating of metal M11-G
displays and materials L03-G05G
Electrophotographic
apparatus (see also G06-G05 to G06-G08+) A12-L05C1
antireflective layer G06-A02A
binders A12-L05D
carriers A12-L05C2
charge transfer G06-G08D
charging G06-G07
cleaning process (including removing toner from image or apparatus) G06-G08E
developed image fusion G06-G08C
developed image transfer G06-G08B
dry toning G06-G05
electrically conductive layers G06-A07
equipment (see also G06-G05 to G06-G08+) A12-L05C1
fusing, fixing process G06-G08C
imaging methods (particle migration) G06-G08D
latent image transfer G06-G08D
liquid toning G06-G06
photoconductive polymers A12-L05B
polymer use in A12-L05+
processes, general and other G06-G08+
substrates A12-L05D
G06-G05B
toner transfer processes G06-G08B
toners A12-L05C2
G06-G05
G06-G06
Electrophotographic applications
direct electron recording G06-D03
lithographicfilms, paper G06-D02
optical storage storage media G06-D07
photoresists G06-D04
production of circuits G06-D06A
production of electrical elements G06-D06
production of opto-electronics G06-D06B
production of printing plates G06-D05
X-ray materials G06-D01
Electrophotographic use of (meth)acrylamide (co)polymer A04-D04A1
(meth)acrylate (co)polymer A04-F06E4
phenoplasts, general A05-C01B2
polyamides A05-F01E3
polyethylene A04-G02E3
polypropylene A04-G03E1
polyvinyl alcohol A10-E09B2
silicone polymers A06-A00E4
Electrophotography (see also section G) A12-L05+
using semiconductor devices L04-E05E
Electroplating (see also electrodeposition)
apparatus M11-C
bath additives A12-W12E
plastics A11-C04B1
printed circuits L03-H04E3
M11-B05A
Electroporation devices D05-H20
Electrorheological devices L03-G09F
Electroslag
remelting or refining M28-E
welding M23-D07
Electrostatic
applications of (in)organic materials L03-H04B
coating of or with metal M13-H06
coating with polymer A11-B05A
precipitation from gases J01-G04
properties A09-A03
recording A12-L05+
separation of solids J01-K02
spinning F01-G
Electrostrictive devices L03-G10
materials L03-G09H
Electrothermic production or refining of metal M28-F
Electrothermic treatment of alloy, metal or ore M28-E
Electrowetting devices L03-G10J
Elimination processes B11-C01
C11-C01
E11-G
catalytic N07-F+
Elliptical optical glass fibres L01-F03J
Elvanol ® A10-E09+
Embossing paper F05-A05B
Embossing polymers A11-C04C
Embroidering F02-F02
Embryo extracts B04-B04H
C04-B04H
Emetics B12-J06
B14-E06
C12-J06
C14-E06
Emissive electrodes L03-C02A
Emollients B12-A07
B14-R01
C12-A07
C14-R01
D08-B09
Emulsifiers A08-S05
B12-M09
C12-M09
H08-E07
J02-A03
for food D03-H01N
Emulsion A07-B+
B12-M03
C12-M03
D03-H01H
addition polymerisation A10-B03
aqueous, of polymers A07-B+
binders (photographic) A12-L01
G06-A06
breaking J01-D03
breaking for oil well effluents H01-E01
explosives K04-E01
formation (excluding by polymerisation) A11-A03+
fuels H06-B09
graft copolymerisation A10-C03B
paints (water based) A12-B01A
polymerisation A10-B03
A10-C03B
A10-D+
spinning, fibres F01-C07
stabilisers (photographic) G06-H03
supports (photographic) A12-L01
G06-B+
Emulsification J02-A
agents J02-A03C
apparatus J02-A03B
processes J02-A03A
Enamelling M13-J
post-treatment M13-J03
pretreatment of surfaces M13-J01
processes M13-J02
vitreous L01-H06
Enamels
ceramic, polymer uses excluding coatings A12-W12G
polymeric A12-B
Enantholactam condensant A01-E04

Encapsulated components
  electrical A12-E04
  non electrical A12-W05
Encapsulating A11-B05+
  electrical components A12-E04
  integrated circuits, chips etc. with lead frames and assemblies L04-C02D
Encapsulation J04-A06
of pharmaceuticals B12-M18 C12-M18
  of printed circuit boards L03-H04E8
  of semiconductors, apparatus, moulds, hand equipment L04-C20C
  of semiconductors, in glass L04-C20B
  of semiconductors, in resins A12-E04 A12-E07C L04-C20A
Encephalitis B14-N16 C14-N16
Encrustation of equipment, (with polymer) prevention of A10-G02
End etherified polymers A10-E08+
End joining in winding F01-H03B
Endocrine gland extracts B04-B02D C04-B02D
Endorphins B04-J11 C04-J11
Enemas B12-M08 C12-M08
Energy boosters D03-H01T4
Energy conversion devices L03-E05
Engine exhaust gas
  detection/measurement H06-C05
  treatment H06-C04 E11-Q02A
Engine systems (transport) A12-T04C
Engineering
  nuclear applications K09-K
  tissue scaffold D09-C01E
Engineering (application of polymers)
  chemical A12-W11+
  civil A12-R+
  electrical A12-E+
  mechanical A12-H+
  nuclear A12-W11C
Engines, jet A12-T03
Enkephalins B04-J11 C04-J11
Entangling yarns F01-H02
Envelopes for discharge tubes or lamps L03-C04
  luminescent L03-C04B
Environment friendly E11-W
Enzymes A12-W11L B04-B02C B04-L01 C04-B02C C04-L01
  agonist B14-L01A C14-L01A
  biosynthesis of D05-C03
  catalysts N05-E
  compositions (polymer use) A12-W11L
  detergent additives D11-B01D3
  general inhibitor activity B12-G01B B14-D03 C12-G01B C14-D03
  inhibitors B04-B04F B04-M01 C04-B04F C04-M01
  polymerisation catalyst A02-A12
  precursors, other B04-L09 C04-L09
  process excluding polarography or labelling B11-C08E3 C11-C08E3
  processes with enzymes fixed to carriers D05-A01
  processes with enzymes not fixed to carriers D05-A02
  supports A12-W11L D05-A01
  tracers bound to antigen/antibody B11-C07A4 C11-C07A4
EPDM A04-G06+
Epichlorohydrin
  (co)polymers A05-H04
  amine condensates A05-J09
  condensants A01-E07
  monomer A01-E07
  rubber A05-H04
Epikote 828 ® A05-A02
Epilepsy treatment B12-D04 B14-J07 C12-D04 C14-J07
Epimerase B04-L07 C04-L07
Episulphides
  (co)polymers A05-J05
  condensants A01-E07
Epitaxial growth of semiconductor layers – general L04-C01
Epocryl ® A10-E07B
Epon 828 ® A05-A02
Epoxidation of polymers A10-E06
Epoxides (i.e. monoepoxides) condensants A01-E07
Epoxides (unfused) B07-A03 C07-A03 E07-A03
Epoxides of bicycloalkenes B06-A03 C06-A03 E06-A03
Epoxidised
  drying oil plasticisers A08-P07
  novolac or resols A10-E08C
  phenolic resins A10-E08C
  phenoplasts A10-E08C
  polybutadiene A10-E06
  polymers A10-E06
  soybean oil plasticiser/extender A08-P07
Epoxy compound, polymerisation catalyst for A02-A+
Epoxy containing plasticisers A08-P07
Epoxy group containing condensants A01-E07
Epoxy paints, varnish or lacquer A12-B01L G02-A02G
  acrylic G02-A02C1
Epoxy resins A05-A+
  adhesives A05-A01E3 A12-A05C G03-B02E2
  amination A10-E18
  coatings/paints A12-B01L G02-A02G
  cycloaliphatic A05-A05
  electrical encapsulation A05-A01E2
  general applications A05-A01E+
  general applications, adhesives and binders A05-A01E3
  general applications, coatings A05-A01E4
  general applications, electrical engineering A05-A01E2
  general, compounding A05-A01B
  general, fabrication A05-A01C
  general, production A05-A01A
  general, treatment A05-A01D
  glycidyl ether of alcohols A05-A03
  glycidyl ether of phenols A05-A02
  in polymeric blends A07-A+
  other glycidyl compounds A05-A04
  other specific compounds A05-A
3,4-Epoxy-6-methylcyclo hexyl methyl-3,4-epoxy-6- methyl cyclohexane carboxylate A05-A05 E06-A03
EPR A04-G06+
Equipment cleaning
  of paper making equipment F05-A04E
  of polymerisation equipment A10-G
Equipment control A09-D+
  in extruders A09-D02
  in moulding processes A09-D01
  other A09-D03
Equipment encrustation (with polymer), prevention of A10-G02
Equipment for polymerisation
  addition (co)polymerisation A10-B01
  ordered addition copolymerisation A10-C+
  polycondensation A10-D04
Equipment for processing and treating polymers
  colouring, bleaching A11-A01B
  compounding, mixing, homogenising A11-A03A
  extruder design A11-B07C
  injection moulds A11-B12B
  injection, other A11-B12C
  others - see appropriate process code
  spinning heads, die design A11-B15A

Equipment, polymer use in
electrophotographic A12-L05C1
laboratory A12-L04+
medical A12-V03+
photographic A12-L+
Erasers A12-D05
Erasing liquids G02-A03C
Erbium compounds B05-A03B
C05-A03B
catalysts N03-A02B
inorganic E34-E02B
organic E05-P
Ergot alkaloid B04-A03
C04-A03
Erosion (soil) prevention A12-A02
A12-W10C
B12-P10
C12-P10
C14-T01B
Erythrocytes B04-B04D1
B04-F04
C04-B04D1
C04-F04
bound to antibody or antigen B11-C07A6
C11-C07A6
Erythromycin B02-E
C02-E
Erythropoietics B12-H01
B14-F03
C12-H01
C14-F03
Erythropoietin (Epo) B04-H07
C04-H07
Escherichia B04-F10A3
C04-F10A3
Essential oils D10-A05A
Ester - see also under appropriate acid
Ester interchange
of (meth)acrylic acid, monoolefinic (co)polymers A04-F06
polycondensation by A10-D05
polymer modification by A10-E07
Ester plasticisers A08-P+
aliphatic esters A08-P05
aromatic esters (excluding phthalates) A08-P03
hydroxy acid esters A08-P06
inorganic esters A08-P05
non-carboxylic esters A08-P05
phosphorus esters A08-P05
phthalates A08-P02
Esterase
agonists B14-L01A3
C14-L01A3
inhibitors B14-D07A
C14-D07A
Esterification H04-E17
Esterification of polymer A10-E07+
by saturated acids (derivatives) A10-E07C
by unsaturated monobasic acids (derivatives) A10-E07B
by unsaturated polybasic acids (derivatives) A10-E07A
Esterification, polymerisation by A10-D05
Esterified polymer A10-E07+
Esters non-conjugated, diolefinic (co)polymers A04-B09
Esters, acrylic (co)polymers A04-A03
A04-B09
A04-F06+
Esters, cellulose A03-A02+
A03-A03
B04-C02A3
C04-C02A3
Esters, inorganic, cellulose A03-A03
B04-C02A3
C04-C02A3
Estr - see also Oestr-
1,4-Estradienes B01-B03
C01-B03
Estradienes (two ring "A" double bonds other than 1,4) B01-B04
C01-B04
Estradiols B01-A02
C01-A02
Estranes (saturated ring "A") B01-D02
C01-D02
1,2,5(10)-Estratrienes (excluding estrones and estradiols) B01-A03
C01-A03
Estrones B01-A01
C01-A01
Etching metal M14-A
chemical processes M14-A02
etching media, liquid or gaseous M14-A03
ion beam processes M14-A04
laser processes M14-A04
mechanical processes M14-A01
Etching metal, electrolytic M11-H
apparatus M11-H05
cleaning M11-H01
electrochemical machinery, localised metal removal M23-D06
etching M11-H04
polishing M11-H02
Etching metal, sputtering M13-G
Etching polymer A11-C04D
Etching processes in semiconductor manufacture L04-C07
by dry methods L04-C07B
by ion beam L04-C07A
in liquid phase L04-C07C
in vapour phase L04-C07B
using plasma L04-C07D
Ethacrylic acid E10-C04H
(co)polymers A04-F04+
monomer A01-D08
Ethane-1,2-diol E10-E04H1
condensant A01-E14
Ethanol E10-E04E2
production D05-B03
Ethanolamine E10-B03B
condensant A01-E05
A01-E14
Ethene E10-J02C
copolymers general A04-G11
copolymers, with olefins A04-G06+
copolymers, with other monomers A04-G08+
copolymers, with vinyl acetate A04-G07
monomer A01-D13
polymer A04-G02+
Ether, mono-unsaturated aliphatic, monomer A01-D11
(co)polymers A04-F11
Etherification/ etherified polymers A10-E08+
(cyclo)aliphatic ethers of polyoxyethylene/ propylene A10-E08A
other etherified polymers A10-E08C
other ethers of polyoxy alkylene glycol A10-E08B
Etherification (process)
for petroleum refining H04-E15
Etherified polyethylene glycol using nonyl phenol A10-E08B
Ethers (or thioethers) B10-H01
C10-H01
E10-H01
Ethers, allyl (monoolefinic)
(co)polymers A04-F11
monomer A01-D11
Ethers, cellulose A03-A04+
B04-C02A2
C04-C02A2
Ethers, cyclic condensant A01-E08
Ethers, diallyl
(co)polymers A04-B
monomer A01-C04
Ethers, F containing monoolefinic, (co)polymers A04-E10C
Ethers, vinyl
(co)polymers A04-F11
monomer A01-D11
Ethoxylated sulphate detergents D11-A01F2
Ethoxyline resins A05-A+
Ethyl acetate E10-G02
solvent A08-S02
Ethyl acrylate E10-G02
(co)polymers A04-F06+
monomer A01-D10B
Ethyl acrylate- ethylene copolymers A04-F06+
A04-G08A
Ethyl acrylate-2- chloroethyl vinyl ether copolymers A04-E
A04-F06+
Ethyl alcohol derived acrylic esters
(co)polymers A04-F06+
monomer A01-D10B

Ethyl alpha- chloroacrylate
(co)polymers A04-E
monomer A01-D10
Ethyl cellulose A03-A04+ B04-C02A2 C04-C02A2
Ethyl cyanoacrylate
(co)polymers A04-D
monomer A01-D04 A01-D10
Ethyl hydroxypropyl cellulose A03-A04+ B04-C02A2 C04-C02A2
Ethyl methacrylate E10-G02
(co)polymers A04-F06+
monomer A01-D10B
Ethyl methyl ketone condensant A01-E10
Ethyl vinyl ether
(co)polymers A04-F11
condensants A01-D11
Ethylene E10-J02C
copolymer with olefin-1 A04-G06+
copolymer with vinyl acetate A04-G07
copolymer, other A04-G08+
copolymers general A04-G11
monomer A01-D13
polymer applications A04-G02E+
polymer applications, coatings, adhesives and binders, textiles A04-G02E1
polymer applications, film, packaging A04-G02E2
polymer applications, photographic, household, office, medical, dental, cosmetic, veterinary A04-G02E3
polymer compounding A04-G02B
polymer fabrication A04-G02C
polymer production A04-G02A
polymer treatment A04-G02D
Ethylene copolymers (also A4-G6+; A4-G7+) A04-G08+
Ethylene diacrylate
(co)polymers A04-B09
monomer A01-C01
Ethylene diamine condensant A01-E05
Ethylene dimethacrylate
(co)polymers A04-B09
crosslinker A08-C07
monomer A01-C01
Ethylene glycol bis(allyl carbonate) (co)polymers A04-B09
Ethylene glycol condensant A01-E14
Ethylene glycol-terephthalic polyesters A05-E04+
Ethylene glycol-terephthalic - isophthalic polyesters A05-E04+ A05-E05
Ethylene homopolymers A04-G02+
Ethylene imine
condensant A01-E05
polymer A05-J07
polymerisation catalyst A02-A+
Ethylene oxide E07-A03A
disinfectant (not of food or air) D09-A01C
monomer A01-E07
polymer A05-H03
polymer, polymerisation catalyst A02-A+
polymer, preparation, compositions A05-H03A
Ethylene oxide-propylene oxide copolymer based polyurethane A05-G03
Ethylene oxide-propylene oxide copolymers A05-H03+ A05-H04
Ethylene polymer adhesives A04-G02E1 A12-A05B2 G03-B02D3
Ethylene polymers including oligomers A04-G02+
Ethylene urea condensant A01-E03
Ethylene urea- formaldehyde resin A05-B04
Ethylene-butene-1 copolymer (LLDPE) A04-G06+
Ethylene-chlorotri-fluoroethylene binary copolymer A04-E10D A04-G08
Ethylene-ethyl acrylate copolymers A04-F06+ A04-G08A
Ethylene-methacrylic acid copolymers A04-F04+ A04-G08A
Ethylene-olefin-1 copolymers A04-G06+
Ethylene-propylene binary copolymers A04-G06+
Ethylene-propylene-(di)cyclopentadiene copolymers A04-G06+
Ethylene-propylene-1,4-hexadiene A04-G06+
Ethylene-propylene- diene rubber A04-G06+
Ethylene-propylene- diene terpolymer A04-G06+
Ethylene-propylene-ethylidene norbornene A04-G06+
Ethylene-tetrafluoro-ethylene copolymers A04-E09 A04-G08
Ethylene-vinyl acetate copolymer (EVA) A04-G07
Ethylene-vinyl acetate copolymer adhesive/binder A12-A05B2 G03-B02D2
Ethylenic hydrocarbon E10-J02C
2-Ethylhexyl acrylate
(co)polymers A04-F06+
monomer A01-D10B
2-Ethylhexyl alcohol derived acrylic esters
(co)polymers A04-F06+
monomer A01-D10B
2-Ethylhexyl alpha-chloro-acylate
(co)polymers A04-E
monomer A01-D10
2-Ethylhexyl cyanoacrylate
(co)polymers A04-D
monomer A01-D04 A01-D10
2-Ethylhexyl methacrylate
(co)polymers A04-F06+
monomer A01-D10B
Ethylidene norbornene
(co)polymers A04-B
monomer A01-C05
Ethyne E10-J01
(co)polymers A04-A02
monomer A01-B02
Euphorics B12-C10 B14-J01A C12-C10 C14-J01A
Eupnea treatment B12-K06 B14-K01 C12-K06 C14-K01
Europium compounds B05-A03B C05-A03B
catalysts N03-A02B
inorganic E34-E02B
organic E05-P
EVA copolymer A04-G07
Evaporation A10-G+ A11-A02+ J01-A01
of sugar solutions D06-D
Evaporative spinning A11-B15C F01-C08A
Exhaust systems for engines A12-T04C
Expanded clay, preparation of L02-B05
Expanded forms E12-A10
Expanded phenoplasts A05-C+ A12-S03
Expanded polymers/plastics compositions, foam forming process, general A12-S04A
compositions, foam forming process, general general processes A12-S04A1
compositions, foam forming process, general, other polymer compositions (excluding S01-S03) A12-S04A3
compositions, foam forming process, general, polyolefin compositions A12-S04A2
compositions, foam forming process, general, polyolefin foaming process A12-S04A2
construction material, sound and thermal insulation A12-S04B

fabrics, furniture, upholstery, furnishings, toys, sports goods A12-S04D
integral skin foams, floats cables, electrical insulation A12-S04E
packaging, containers, agriculture/ horticulture A12-S04C
polystyrenes A12-S01+
polystyrenes, foam composition or expanding process A12-S01A
polystyrenes, foam-in-place A12-S02A
polystyrenes, general foaming process A12-S02C
polystyrenes, other specific polyurethane A12-S02E
polystyrenes, polyetherurethanes A12-S02D
polystyrenes, polyurethanes A12-S02+
thermoset A12-S03

Expanding agent A08-B+

Expanding of polymers A11-B06+

Expectorant B12-K05 B14-K01E C12-K05 C14-K01E

Experimental genomics B11-C08F2 C11-C08F2

Experimental proteomics B11-C08F4 C11-C08F4

Exploration for oil and gas H01-A

Explosive
ANFO K04-E01A1

Explosive charges K03-A

Explosive forming (metal) M21-D

Explosive welding M23-E02

Explosives A12-T03A K04-A K04-E
additives K04-G
azide K04-E03
based on chlorate oxidiser K04-E01B
based on chlorates K04-A02
based on nitrate oxidiser K04-E01A
based on nitrates K04-A01
based on organic nitro compound(s) K04-E02
based on perchlorate oxidiser K04-E01B
density control agents K04-G
detection K04-F03
disposal K04-F02
emulsion K04-E01
inorganic K04-E03
lead azide K04-E03
lead styphnate K04-E03
manufacture K04-F01
manufacture and treatment K04-A04 K04-F
nuclear K08-D
organometallic K04-E03
sensitisers K04-G
slurry K04-E01
sprengel type K04-A03
styphnate K04-E03
water gel K04-E01

Exposure to radiation in forming photographic image G06-G18

Extended quinone dyes (general) E22-E

Extenders (coal tar fractions, oils, waxes) A08-P08

Extracting coffee D03-D01B

Extracting tea D03-D02B

Extraction (processes) B11-B C11-B E11-Q
from natural materials E11-Q01B
Other separations B11-B03 C11-B03
Removal processes B11-B04 C11-B04
Separation of stereoisomers by a biological method B11-B01 C11-B01
Separation of stereoisomers by other method B11-B02 C11-B02

Extraction of ferrous metal M24-A
by direct reduction, sponge iron or liquid steel production M24-A03
by wet method M24-A01
from scrap, slag, flue dust etc. M24-A07
using a blast furnace M24-A02

Extraction of natural polymers
e.g. from trees A10-A

Extraction of natural rubber A10-A

Extraction of non-ferrous metal by dry reduction of ore M25-C
apparatus M25-C01
methods M25-C02

Extraction of non-ferrous metal compounds from ore by wet method M25-B

Extraction of non-ferrous metal from scrap, flue dust, slag M25-E

Extraction, water treatment by D04-A01N

Extreme pressure additives for lubricants A12-W02A

Extruded nets A12-P07 F02-E03

Extruder
bulk polymerisation in A10-B02 A10-C03C A10-D+
design A11-B07C
equipment control A09-D02
mixing A11-A03A
safety in A09-D02

Extruding to small particles A11-A04

Extrusion A11-B07+
blow moulding A11-B07+ A11-B10
blowing of film A11-B07A A12-S06A
coating A11-B05B2
crosslinking A11-C02C
flash F01-C07B
foaming A11-B06B
FRP (fibre reinforced plastics) production A11-B09C
general associated process A11-B07D
general extruder design A11-B07C
haul-off processes A11-B07D
mixing A11-A03+
of ceramic paste L02-A03
of film A11-B07A
of food D03-K06
of sheet A11-B07A
of tube A11-B07B
pelleting A11-A04
polymer re-use by A11-C03+
recovery of polymer scrap by A11-C03+
regulators H08-E07
spinning A11-B15+

Extrusion in metallurgy
auxiliary processes M21-B02B
control devices M21-B02D
equipment M21-B02C
of metal sheet, wire, rod, tube or profile M21-B02
processes M21-B02A

Eye disorder treatment B12-L04 B14-N03 C12-L04 C14-N03

Eyelashes, false A12-V04 D08-B01

Eye makeup D08-B01 D08-B01A

Eyeshields A12-C02

F

Fabric
melt blowing A11-C05A1
Fabrics
sizes A12-G04
Fabrics - see also Fibres and Textiles
ageing resistance improvements F03-C07
analysis F03-K02
apparatus for chemical treatment F03-C01
biological repellents, non-resinous A12-S05R F03-C02B
biological repellents, resinous A12-G F03-C02B
bleaching A11-A01+ F03-B01
calendering A11-B03 F03-A01
chemical treatment A12-G+ A12-S05+ F03-C+
crease resistant finish - see under Fibres
crepe F02-G02
cutting F03-K03
decorating F03-H
deodorising F03-C09
dye receptiveness improvement A08-M01A F03-C06
dyeing other substrates A12-S05P F03-F+
dyeing polyester, polyamide or cellulosic A12-S05N F03-F+
flame retardant finish - see under Fibres
foam use in A12-S04D
foamback (clothing) A12-C01
general A12-G+ A12-S05+
glass, polymer coating on A12-B05
handling F03-K01
identification F03-K01
inspection F03-K02
joining F03-K
knitted A12-S05H F02-B02
laundering F03-J+
laying F03-K01
lubricant finish A12-S05S D11-B15 F03-C05
marketing F03-K
mechanical treatment A12-S05U F03-A+
mercerising F03-B
non-woven A12-S05G F02-C01
non-woven pile fabrics F02-C01A
non-woven self-bonded F02-C01B1
non-woven, polymer-bonded A12-B02B
odorising F03-C09
of polymer fibre A12-S05+ F02+
physical characteristics of pile F02-G01 F02-G03
pile, net or gauze-like A12-S05J
pill resistant - see under Fibres
polymer coating on glass A12-B05
polymer coating on other A12-B02 A12-G+
printing A11-C04A A12-S05Q F03-F+
processes A11-C05+
processing aid F03-C05
production weaving A11-C05A F02-A04+
production, knitting A11-C05A F02-B03+
products manufacturing F04-F+
recycling F03-E02
reinforced plastics A12-S08F
reinforced solid material design for F03-D04
repellent or retardent, general A12-G+ A12-S05R F03-C02+
scouring F03-B
setting F03-A02
severing F03-K03
shearing F03-A
softeners D11-B15
softeners and detergents D11-D07C2 F03-C05
stretch F02-G04
synthetic production A11-C05A F02+
testing F03-K02
treatment - see above under chemical or mechanical
waterproofing - see under Fibres
winding up F03-K01
woven A12-S05F F02-A03+
Face wash D08-B09A2
Liquid D08-B09A2A
Solid D08-B09A2B
Factors
blood B04-B04D3 C04-B04D3
blood (general) B04-H01 C04-H01
clotting B04-H19 C04-H19
EGF B04-H06A C04-H06A
factor IV (calcium) B05-A01B C05-A01B
factors I to III B04-H19 C04-H19
factors V to XIII B04-H19 C04-H19
FGF B04-H06G C04-H06G
growth, general and other B04-H06 C04-H06
HGF B04-H06K C04-H06K
IGF B04-H06H C04-H06H
LIF B04-H09 C04-H09
MDGF B04-H06C C04-H06C
metabolic B04-B04J B04-H01 C04-B04J C04-H01
NGF B04-H06D C04-H06D
PAF B04-H14 C04-H14
PDGF B04-H06B C04-H06B
PGF B04-H06J C04-H06J
SCF B04-H16 C04-H16
TGF B04-H06F C04-H06F
TNF B04-H08 C04-H08
Faeces B04-B04B B04-B04B2 C04-B04B C04-B04B2
Fascia, vehicle A12-T04B
Fake tan D08-B01D2
Falmerene B05-U02 E05-U02
False twisted fibres A12-S05C F01-E04
conjugate F01-E01A
False twisting of fibres
crimping A11-B02D F01-H04B
non-crimping F01-H01
Fan blades A12-H
Fancy goods A12-F
Fancy yarns A12-S05E F01-E
Farming A12-W04+
see also CPI Section 'C'
Fascia, vehicle A12-T04B
Fasciola treatment B12-B06 B14-B03 C12-B06 C14-B03
Fast dyes for polymers F03-F19
Fast fission reactors K05-A01
Fasteners, fastenings
clothing A12-C03 F04-C04
manufacture F04-F01 M21-G
others (mechanical engineering) A12-H12
Fatigue combatting B12-C06 B14-J01A C12-C06 C14-J01A

Fats B04-B01B C04-B01B D03-C D10-A D10-B
cooking (solid) D03-C02
spreads D03-C02
Fatty acids D10-B
Monounsaturated fatty acid B10-C04E3 C10-C04E3
Polyunsaturated fatty acid B10-C04E2 C10-C04E2
Saturated fatty acid B10-C04E5 C10-C04E5
Feathers (or extract) B04-B04E C04-B04E
Febrifuge B12-D08 B14-C04 C12-D08 C14-C04
Feed devices for knitting machines F02-B04
Feed of workpiece to sewing machine F02-F01B2
Feeding of slivers F01-F04
Feeding polymer to processing A11-A
Felt pens A12-D05B
Felt, polymer coating on A12-B02+
Felting to give non-woven fabric F02-C02C
Felts A12-S05G F02-C01
FEP A04-E09 A04-E10D
Fermentation apparatus D05-A03
Fermentation processes B11-A C11-A D05-A D05-B D05-C E11-M J09-C01B
using enzymes B11-A02 C11-A02
using dehydrogenases, reductases B11-A02A4 C11-A02A4
using DNA/RNA polymerases B11-A02B1 C11-A02B1
using esterases B11-A02C1 C11-A02C1
using glycosidases B11-A02C2 C11-A02C2
using hydrolases B11-A02C C11-A02C
using isomerases B11-A02E C11-A02E
using kinases B11-A02B3 C11-A02B3
using ligases B11-A02F C11-A02F
using lipoxygenases B11-A02A5 C11-A02A5
using lyases B11-A02D C11-A02D
using oxidases B11-A02A1 C11-A02A1
using oxidoreductases B11-A02A C11-A02A
using oxygenases B11-A02A3 C11-A02A3
using peroxidases B11-A02A2 C11-A02A2
using proteases/peptide hydrolases B11-A02C3 C11-A02C3
using reverse transcriptases B11-A02B2 C11-A02B2
using transferases B11-A02B C11-A02B
using microorganisms B11-A01 C11-A01
using bacteria B11-A01A C11-A01A
using fungi B11-A01C C11-A01C
using viruses B11-A01B C11-A01B
Fermentation tests B11-C08E1 C11-C08E1
Fermentation vessels D05-A03
automated D05-A03B
mixing devices D05-A03B
Fermented foods D05-A04D
Fermented solution, distillation of D05-D
Fermenting tea D03-D02D
Fermium compounds B05-A04 C05-A04
inorganic E35-R
organic E05-Q
Ferns B04-A08B C04-A08B
Ferric chloride catalyst for polymerisation A02-A04 A02-A07+
Ferric, ferrous compounds - see also Iron
Ferricyanides (inorganic) B05-A03A C05-A03A E32-B
Ferrite magnetic compositions
barium containing L03-B02B1
non-barium containing L03-B02B2
Ferrocyanides (inorganic) B05-A03A C05-A03A E32-B
Ferroelastic
ceramics L02-G07B
materials L02-G09B
Ferroelectric
ceramics L02-G07B
materials L03-G09B
Ferrous alloys M27-A
cast iron alloys M27-A03
master alloys M27-A02
production M27-A01
steel alloys M27-A04
treatment M27-B
treatment, cast iron alloys M27-B03
treatment, production M27-B01
treatment, steel alloys M27-B04
Ferrous metals
changing physical properties M24-D
control/testing M24-E
Fertiliser
containing polymers A12-W04B
general C14-T
inorganic C12-N09 C14-T03
other C12-N10 C14-T04
trace element C14-T05
Fertiliser mixtures containing P-acid (salt) and N compounds C05-B02A4
P-acid (salt), and no N C05-B02A5
Fettling castings M22-G03H
Fever inducing B14-C05 C14-C05
Fibre reinforced
material, adhesion improving agents for A08-M01+ F01-H06B
metal, by casting method M22-G03K
metal, by powder metallurgy M22-H03D
metal, ferrous M24-D06
metal, non-ferrous M29-D
plastics production using moulds/extrusion A11-B09C
polymers A12-S08+
solid materials, fabric designed for F03-D04
Fibreballs F01-E09A
Fibreboard A12-A04B F05-A07
production A11-B09B F05-A07
Fibrefill F01-E09A
Fibres
general A12-S05X E12-A12
optical, coatings G02-A05H
sizes A12-G04
Fibres - see also Fabrics and Textiles A12-S05+
animal, chemical treatment F01-B01
animal, mechanical treatment F01-A01
carbon L02-H04A
ceramic, manufacture L02-B08
ceramic, metal reinforced with L02-J01D
coatings on A12-B02+ A12-G+
composition (general) A12-S05K
conjugate A12-S05B
conjugate (general) F01-E01+
crease resistant finish, non-resinous A12-S05R F03-C04
crease resistant finish, resinous A12-G02 F03-C04

crimped A12-S05C F01-E04
crimped conjugate F01-E01A
crimping (general) A11-B02D F01-H04+
elastic (spandex) A12-S05D
false-twising A11-B02D F01-H01 F01-H04B
fancy yarns A12-S05E
finishing F01-H06+
flame retardant finish, non-resinous A12-S05R F03-C03+
flame retardant finish, resinous A12-G01 F03-C03+
forming polyesters A05-E+
general A12-S05+ F01+
glass L01-F03
glass, formation, equipment for L01-F03C
glass, formation, nozzles for L01-F03B
glass, post-forming of L01-F03E
glass, roving formation L01-F03D
glass, surface treatment L01-F03A
grafting of monomer(s) on A10-C03A
gypsum L02-C05
heat setting A11-B02C F01-H05
hollow A12-S05A F01-E03
insect repellant, non-resinous A12-S05R F03-C02B
insect repellant, resinous A12-G F03-C02B
mechanical finishing (general) F01-H+
metal production M22-H01
mineral, mechanical treatment F01-A03
mineral, preparation L02-B08
mineral, products L02-D11
monofils A12-S05E F01-E05
non-circular A12-S05A F01-E02
non-iron finish - see crease resistant finish
oil proofing, non-resinous A12-S05R F03-C02
oil proofing, resinous A12-G03 F03-C02
optical A12-L03A F04-G01
physical characteristics, others F01-E+
pill resistant - see crease resistant finish
polymer coatings on A12-B02+
polymeric in paper A12-W06+
processes (textile) A11-C05+
production (general) A12-S05L
products other than in fabric form F04-G+
reactive dyes for polymers A08-E03+ F03-F19
shrink resistant finish - see crease resistant finish
soil proofing - see oil proofing above
staple A12-S05E
tapered A12-S05A F01-E02
testing F01-H
textured A12-S05C F01-E04
vegetable, chemical treatment F01-B02
vegetable, mechanical treatment F01-A02
water proofing, non-resinous A12-S05R F03-C02A
water proofing, resinous A12-G03 F01-C05 F03-C02A
Fibrids F01-J01
production F01-C07C
Fibrillating A11-B02+ F01-C05
Fibrils A12-S05+ F01-E+
Fibrin B04-H19 C04-H19
Fibrinase B04-H19 C04-H19
Fibrinogen B04-H19 C04-H19
Fibrinogenase B04-H19
Fibrinoginase C04-H19
Fibrinolysin B04-B02C3 B04-H19 C04-B02C3 C04-H19
Fibrinolytics B12-H02 B14-F04 C12-H02 C14-F04
Fibrous cellulosic suspension, production of articles from F05-A07
Fibrous fillers, reinforcing agents A08-R+
Fibrous webs, bonding to give non-woven fabrics F02-C02B+
Field effect transistors L04-E01A
junction type (JFET) L04-E01A1
metal oxide, semiconductor type (MOSFET) L04-E01B1
Filament winding for FRP A11-B09+
Filaments of polymers A12-S05+ F01-E+
Filaments, artificial
associated process in production F01-C+
by spinning F01-C+
Filariasis treatment B12-B02 C12-B02
Fillers
asbestos A08-R02
carbon A08-R03+ G01-A11
cellulosic A08-R07
general A08-R01
glass A08-R04
inorganic A08-R+ G01-A+
metal A08-R05 G01-A12
other (not specified elsewhere) A08-R
polymeric A08-R08+
reinforcing agents A08-R+
silica A08-R06A G01-A06
silicates A08-R06B G01-A06
treatment of G01-B+
whiskers A08-R09
Filling bakery products after cooking D01-A06
Filling glass containers L01-J03
Fillings, dental A12-V02B D08-A01
Film A12-S06+
base, photographic A12-L01
carrier for adhesives G03-B04
casting process A11-B04C
containing polymer coatings A12-B07A
extrusion of A11-B07A
formation by bubble methods A11-B07A A12-S06A
forming (i.e. shaping of) A11-B08+
forming (Langmuir-Blodgett) J04-X02
forming polyesters A05-E+
heat sealing/welding involving A11-C01A1 A12-S06B
laminates, polymer on polymer A12-S06C1
laminating A11-B09A2 A11-B09D
laminating, by extrusion A11-B07A
lithographic G06-D02
non-cellulosic polymeric, in paper making A12-W06A
of polymer blends A12-S06D
orientation A11-B02A
packaging A12-P01A
photographic A12-L01
polymeric A12-S06+
polymeric in paper A12-W06+
slitting or splitting to fibres A11-B02 F01-C05
treatment A12-S06B
tubular, production A11-B07A A12-S06A
welding A11-C01A1 A12-S06B
X-ray G06-D01
Films of
polyamide A05-F01E3
polyester A05-E01D3
polyethylene A04-G02E2
polypropylene A04-G03E1

saturated polyester A05-E01D3

Filtering
devices for liquids J01-F02D
engine exhaust gases H06-C04A
for removal of specific substances J01-F04X
materials J01-H02
molten metal M22-G03G
molten metal, iron or steel (or alloy) M24-A05 M24-C
molten metal, non-ferrous (or alloy) M25-F M25-J
water D04-A01E D04-A01F

Filters A12-H04 F04-E05+
gas J01-G03
waste gas J01-G03B
air inflow J01-G03C
gravity J01-F02A
LCD L03-G05B7A
liquid, with mobile element J01-F02C
micro J01-C04
nano J01-C04
optical A12-L03D
photographic G06-A02
regeneration J01-H01 J01-G03A
ultra A12-W11A J01-F02A J01-C04

Filtration
in tests B11-C08D3 C11-C08D3
of gases J01-G03
of liquids J01-F02
of water for purification D04-A01E D04-A01F D04-B10
purification of polymers A10-G01+
separation in petroleum processing H02-D04

Fine particle structure of polymers A12-S09+

Finely divided solid surfactants for polymers A08-S+

Finger nails, false A12-V04 D08-B01

Finishing of
fibres, yarns F01-H06+
polymers A11-C+

Finned tube production M21-C

Fire detectors, alarms A12-R02

Fire extinguishing compositions A12-W12 K01-A

Fire extinguishing of oil wells
by capping H01-G02
using explosives H01-G01
fire retardant material H01-G03

Fire resistant boards, blocks, blankets L02-D15A
materials L02-D15A1

Fire-fighting compositions A12-W12 K01-A

Fire-resistant walls and
windows L02-D15

Fire-retardants - see fireproofers above

Fireclay refractories L02-E02

Fired clay, polymer coated on A12-B08

Firelighters H09-F

Fireproof
coating compositions G02-A05D
compositions A12-G01 A12-W12 F03-C03+ G04-B06

Fireproofers A08-F+
for fabrics, non-resinous A12-S05R F03-C03+
for fabrics, resinous A12-G01 F03-C03+

Fireworks K04-C

Firing ceramics and refractories L02-A04

Fish
animal feeds from D03-G05
cells B04-F07D C04-F07D
degutting D02-A02
extracts D02-A03A
flakes D02-A03A
meal D02-A03A
pastes D02-A03A
processing D02-A
products D02-A03
products, preservation D03-A02
repellents B12-N06 B14-B13 C12-N06 C14-B13
residues removal from waste water D04-B04
roe B04-B04N2 C04-B04N2 D02-A03A
waste, protein recovery from D03-F04
whole, processing D02-A02

Fishing A12-F01
lines A12-F01
nets A12-P07 A12-W04
rods A12-F01

Fishing tools (drilling equipment) H01-B07

Fittings
building A12-R02+
for hoses A12-H02C
for pipes A12-H02C
for tubes A12-H02C

Fixed enzyme processes, general D05-A01C

Fixing biological substances A12-W11L
to a carrier D05-H10

Fixing devices for dentures D08-A03

Fixing processor rollers, electrophotographic G06-G08C

Fixing, photographic
black and white silver halide G06-G02
colour G06-G12

Fixtures, building A12-R02+

Flakes E12-A14

Flaking, detergents D11-D03

Flame (plasma) spraying
refractories and ceramics L02-A06

Flame cutting and scarfing M23-C

Flame laminating of fabrics F03-D02

Flame polishing A11-C04

Flame proofers A08-F+

Flame proofing of wood F05-B

Flame retardance of polymers A09-A01

Flame retardants A08-F+
additives A08-F+
aluminium hydroxide A08-F05
antimony containing A08-F02
for electrical devices L03-J03
general A08-F01
halogen containing A08-F04+
halogen containing, non-polymeric (cyclo)aliphatic A08-F04C
halogen containing, non-polymeric aromatic/heterocyclic A08-F04B
halogen containing, polymeric A08-F04A
others (specific) A08-F
phosphorus containing A08-F03
textile finishes, non-resinous A12-S05R F03-C03+
textile finishes, resinous A12-G01 F03-C03+

Flame spraying
coating with polymer by A11-B05B1
metal M13-C

Flame treatment of polymer surfaces A11-C04

Flame welding M23-B
torches, burners, gas supply M23-B01

Flame-proofing fabrics A12-G01 A12-S05R F03-C03+

Flammability properties A09-A01

Flanges of pipes A12-H02C

Flanging sheet metal M21-E01

Flash
spinning A11-C05C1

Flash evaporation A10-G01+

Flash extrusion of e.g. plexifilaments F01-C07B

Flat glass formation L01-D

Flat platens, pressing between A11-B13

Flattening agents A08-E
inorganic A08-E02
organic A08-E03C

Flattening monofils by calendering A11-B03

Flatulence treatment B12-J03 B14-E03 C12-J03 C14-E03

Flavouring agents B12-J01 B14-E11 C12-J01 C14-E11
chemical D03-H01B
special form D03-H01D
natural D03-H01C
Flaw, detection compositions G04-B09
Flexible foams A12-S+
Flexible sheet for thermal and acoustic insulation A12-R06 F04-E06 L02-D15C
Flexographic printing plates A12-W07C G05-A02
Flints K04-B02
Float glass baths L01-D03
bath chambers L01-D03A
glass treatment in baths L01-D03B
Float glass production L01-D03
Float glass thickness control L01-D03C
Floats, foam use in A12-S04E
Flocculants
acrylic A12-M01
for pollution control A12-W11E D04-A01B D04-B10
polymeric A12-M+
Flocculation of
polymers A10-G01B
sewage and water D04-A01B D04-B09
Flocking, fibre F03-D03
polymer coating by A11-B05B
Flood lighting A12-E11
Flooding, well A12-W10B H01-D06
alkaline H01-D06E
brine H01-D06A
carbon dioxide H01-D06C
polymer H01-D06D
steam H01-D06B
Floor coverings (see also carpets) F04-B02
Flooring A12-R03 L02-D09
Floppy discs A12-E08A2
Floss, dental A12-V04B D08-B08E
Flotation
extraction in metallurgy M25-A01B
separation of solids J01-K03
water treatment D04-A01L D04-B09
Flour D01-B
additives D01-B01
Flow
mixers J02-A02A
promoters A08-M06
Flowers B04-A07D5 C04-A07D5
artificial A12-F
extracts B04-A10C C04-A10C
Flowers and flower parts excluding pollen B04-A09B C04-A09B
Flue dust metal extraction
ferrous M24-A07A
non-ferrous M25-E
Fluid conduction, tubes for A12-H02+
Fluid detergent compositions D11-D07
dishwashing detergents D11-D07D
laundry detergents with bleach (stain removers) D11-D07C3
laundry detergents with special use D11-D07C
Light duty liquid laundry detergents D11-D07B
soap type (hand washing compositions) D11-D07F
Fluid jets, entangling non- woven fabric F02-C02+
Fluidised bed
coating by A11-B05A
heat treatment of iron and steel M24-D02C
reactor J04-X03A
Fluidising additives for concrete L02-D14E
Fluids, functional A12-W02+ H08-D05
Fluorene B08-D03 C08-D03 E08-D03
Fluorescence tests B11-C07B3 C11-C07B3 J04-C02C
Fluorescent brighteners D11-B01 E24-A E24-A04
benzoxazole type E24-A02 E24-A04B
coumarin type E24-A02 E24-A04B
other types (specific) E24-A03 E24-A04C
stilbene type E24-A01 E24-A04A
Fluorescent ceramic oxides L02-G10A
Fluorescent compositions for screens L03-C02B
Fluorescent dyes E24-A E24-A05
Fluorescent semiconductor compositions L03-G
Fluorescent tracers bound to antibody or antigen B11-C07A5 C11-C07A5
Fluoride, vinyl
(co)polymers A04-E10A
monomer A01-D12
Fluoride, vinylidene
(co)polymers A04-E10B
monomer A01-D12
Fluorides B05-C L02-H
Fluorinated polymers A10-E04A
ethylene propylene copolymer A04-E09 A04-E10D
Fluorination A10-E04A
Fluorine catalysts N04-D
Fluorine containing
ether, monoolefinic (co)polymers A04-E10C
inorganic compounds, removal from water D04-B07E
monoolefinic (co)polymers A04-E10+
resin fibres, chemical features of F01-D10
Fluorine or derivatives - see also Halogen or derivatives
Fluoro - see also Halo
Fluoroacrylates
(co)polymers A04-E10D
monomer A01-D10 A01-D12
Fluorocarbon fibres, chemical features F01-D10
Fluorocarbon polymer membranes for electrolysis A04-E+ J03-B03A
Fluorohydrogenated polymers A10-E04
Fluorohydrogenation A10-E04
Fluoroplasts A04-E+
Fluorosilicates E31-P04
Fluorostyrenes
(co)polymers A04-C
monomer A01-D02
Fluorosulphonated polymers A10-E12B
Fluorosulphonation A10-E12B
Fluxes (polymer use) A12-W12F
Fluxes for
iron and steel melt treatment M24-C07
ironmaking M24-B01
non-ferrous metal production M25-C
removing D11-D01B2
soldering M23-A02
steelmaking M24-B02
welding M23-F
Flyer spinning F01-G02
Flywheels A12-H
Foam A12-S+ B12-M11S C12-M11S E12-A10
coating process A11-B05E
coatings on polymer A12-B07B
compositions for dyeing/printing fibres F03-F26
in-place polyurethane A12-S02A
inhibitors, for detergents D11-B08
inhibitors, for polymer A08-S03
making equipment/process A11-B06+
polymeric A12-S+
polymeric, in paper making A12-W06+
polymeric, polyolefins A12-S04A2
polymeric, polystyrene A12-S01+

polymeric, polyurethane A12-S02+
promoter for detergents D11-B08
stabilisers (surfactants)
for polymers A08-A07
thermosets A12-S03
Foamback
carpets A12-D02
fabrics and garments A12-C01
Foamed
adhesives, use of A11-C01+ G03-B03
clay L02-B05
ferrous alloy M24-D06
fibres F01-E
glass, manufacture L01-F07
metal (general)
production M22-G03K
non-ferrous alloy M29-D
polymers - see also
Expanded polymers A12-S+
silicate insulating material L02-D15
Foaming agents A08-B+
Foaming polymers
general A11-B06
involving extrusion A11-B06B
involving moulding A11-B06C
involving other specific methods A11-B06D
to form specific goods A11-B06A
with crosslinking A11-C02D
Fodder A12-W04 D03-G
Foetus extracts B04-B04H C04-B04H
Foils
carriers for adhesives G03-B04
metal, production M21-A03B
polymer A12-S06+
Foliar application C12-M13
Follicle stimulating hormones (FSH) B04-B02D4 B04-J05H C04-B02D4 C04-J05H
Food A12-W09 D03-H D03-J D03-K
cellulose ether use in A03-A04A1
coated D03-H01S
coatings on A12-B
colorant (natural) D03-H01E1
colorant (synthetic) D03-H01E2
defrosting D03-K12
instant D03-H01L
high calorie D03-H01T4
nuclear applications to K09-D
packaging A12-P+
preservation D03-H02
Footballs A12-F01B
Footpaths A12-R09
Footwear A12-C04 F04-C05A
production F04-F02
sports A12-F01
Forge welding M23-E01
Forged products M21-K
Forging metal sheets, wires, rods, tubes or profiles M21-J
control devices M21-J03
equipment M21-J02
processes M21-J01
Forks A12-D03
Formal, polyvinyl A10-E02
Formaldehyde E10-D01
(co)polymers A05-H02+
acetone polymer A05-J08
condensant A01-E09
toluene resin A05-J08
Formalin condensant A01-E09
Formamide E10-D03C1
Formic acid E10-C04J E10-C04J1
production E10-C04J1P
use E10-C04J1U
Formica ® A12-A04A
Forming
by dipping A11-B04B
fabrics F03-A01
from sheet or tube A11-B08+
from sheet or tube, forming from tube or pipe A11-B08C
from sheet or tube, forming of sheet or film (excluding by vacuum) A11-B08B
from sheet or tube, general A11-B08+
from sheet or tube, vacuum assisted forming sheet/film A11-B08A
high energy rate M21-D
paper F05-A05B
polymers (general) A11-B+
pores (foaming polymers) A11-B06+
sheet metal M21-E
sheet, strip, tube A11-B08+
vacuum type A11-B08+
Foundation garments F04-C01
Foundry cores, moulds A12-A02
Foundry moulding M22-A
mould material handling/ dressing M22-B
moulding compositions M22-A01
moulding machines M22-E
moulds/cores M22-D
patterns M22-C
Fountain pens A12-D05B
Fourdrinier wires F04-E05A
Fractional distillation A10-G01+ B11-B C11-B D05-D
Fracturing, well A12-W10B H01-C03
Frames, spectacle A12-L03
Francium catalysts N03-A
Francium compounds B05-A04 C05-A04
inorganic E35-Y
organic E05-Q
Free radicals
organic B10-A01 C10-A01 E10-A01
polymerisation catalysts A02-A03
scavenger B14-S08 C14-S08
Freeze drying J08-F04
coffee D03-D01B
tea D03-D02B
Freezing
apparatus J07-C
food D03-H02A
liquids and semiliquids J07-B
spun fibres F01-C
water treatment by D04-A01C
French polish G02-B05
Frenolicin B02-F C02-F
Fresnel lenses A12-L02A
Friction
coatings M13-K
material A12-H10 G04-B04
material, ceramics L02-G08
reducing material A12-H10
welding M23-E01
Fried foodstuff D03-H01U
Friedel-Crafts
catalysts N04-D01
catalysts, for polymerisation A02-A04
crosslinking agents A08-C+ A08-D+
resins A05-J
Frost protection
concrete additives L02-D14C
for plants B12-P10 C12-P10 C14-T01C
Froth flotation (extraction metallurgy) M24-A01 M25-A01
FRP A12-S08+
Fruit B04-A09K C04-A09K
Fruit drop treatment B12-P03 C12-P03 C14-U01B
Fruit extract B04-A10K C04-A10K
Fruit juice D03-H01G1
Fruit preservation D03-A04
Fruit setting agents B12-P03 C12-P03 C14-U01B
Fruit thinning agents B12-P03 C12-P03 C14-U01B
Fruit, machines for
coring D03-J06
cutting D03-J06
peeling D03-J04
pulping D03-J06

removing stones and pips D03-J03
washing D03-J05
Fruit products D03-P

FSH (follicle stimulating hormone) B04-B02D4 B04-J05H C04-B02D4 C04-J05H

Fuel A12-T03+
as briquettes H09-F01
oils H06-B05
emulsion H06-B09
filtration J01-F04X4
production H06-P
propellants, explosives A12-T03+
rocket A12-T03C K04-C01
recycling H06-X03
separation H06-X02
treatment H06-X01
combustion exhaust treatment H06-C+

Fuel additives A12-T03+ H06-D
methacrylate copolymer in A04-F06E3
petroleum fuel A12-T03B
production H06-P
rocket fuel A12-T03C

Fuel cells (electrical) A12-E06+ L03-E04
alkaline L03-E04D
bio L03-E04K
component production L03-E04H+
electrodes A12-E06A L03-E04B
flow field plate L03-E04L
fuel storage for J06-B06A
hydrogen generation L03-E04I
hydrocarbon based H08-E04
hydrogen oxygen L03-E04F
Molten carbonate L03-E04C
Phosphoric acid L03-E04E
separators L03-E04G
solid oxide electrolyte L03-E04A
storage for internal combustion J06-B06B
testing L03-E07

Fuel, nuclear K05-B04
chemical production K05-B04A
element construction K05-B04B
recovery, reprocessing K06-C
storage K05-B07B
transport/storage containers K07-A02A

Fuels
Liquid, derived from waste polymer H06-B06

Fullerenes B05-U E05-U L02-H04B
Buckminsterfullerene B05-U02 E05-U02
containing carbon only B05-U02 E05-U02
containing hetero atom(s) B05-U01 E05-U01
Falmerene E05-U02
Falmerenes B05-U02

Fumarate, diallyl
(co)polymers A04-A03
monomer A01-B03

Fumaric acid
(co)polymers A04-F05
monomer/condensant A01-D08 A01-E12

Fumaric ester
(co)polymers A04-F07
condensant A01-E12
monomer A01-D10

Functional fluids A12-W02+ H08-D05
polymeric additives A12-W02A

Fungi B04-B02B2 C04-B02B2 D05-H05
Mushroom extracts B04-A10A C04-A10A
Mushrooms (whole) B04-A08D C04-A08D
Pichia pastoris B04-F09D C04-F09D
recombinant D05-H14A2
Toadstools (whole) B04-A08D C04-A08D
unicellular B04-F09 C04-F09
yeast B04-F09 C04-F09

Fungicides B12-A02C C12-A02C
fabric treatment A12-S05R F03-C02B
general B14-A04 C14-A04
photographic G06-H02
polymer additives A08-M02
use of polymers A12-W04C
wood treatment F05-B01

Fungistat see Fungicides

Fur, artificial F04-B03

Furan resins A05-J

Furans
(co)polymers A05-H05
condensants A01-E08

Furans (excluding tetrahydrofuran) B07-A01 C07-A01 E07-A01

Furfural
condensants A01-E10
resins A05-J08

Furfuraldehyde condensants A01-E10

Furfuryl alcohol
condensants A01-E14
derived resins A05-J

Furnace accessories J09-B
charge handling J09-B02
charge preheating and cooling J09-B03
constructional features J09-B01
control and safety devices J09-B04

Furnace black E31-N
filler A08-R03

Furnace design J09-A
open sintering J09-A04
rotary J09-A03
stationary, with mechanically moved charge J09-A02
with stationary charge J09-A01

Furnace furniture for semiconductor processing - including boats, racks, crucibles, wafer supports etc. L04-D09

Furnaces for
calcining ceramic raw material (rotary) L02-A02
cement clinker (rotary) L02-C02
glass L01-C
glass, construction and design L01-C02
glass, control and operation L01-C03
heat treatment of ferrous metals M24-D04
heat treatment of non-ferrous metals M29-C02
heat treatment of semiconductors L04-D05
metal casting M22-G03G
metal working M21-N04
sintering ceramics, refractories L02-A04

Furnishings A12-D01 F04-D+
foam use in A12-S04D

Furniture A12-D01
foam use in A12-S04D

Fused and Cast refractories L02-E08

Fuses (detonators) K04-B01

Fuses, electrical A12-E07 L03-B04D

Fuses, semiconductor L04-C10A1

Fusidic acid B02-F C02-F

Fusing mechanisms K03-A03

Fusing of glass to
glass L01-H03
non-glass (excluding vitreous enamelling) L01-H04

Fusing process or rollers, electrophotographic G06-G08C

Fusion genes D05-H12C
encoding altered fusion protein B04-E02H
encoding wild-type fusion protein B04-E03H
encoding altered fusion protein C04-E02H
encoding wild-type fusion protein C04-E03H

Fusion proteins B04-N08 C04-N08 D05-H17C+

Fusion reactors, controlled K05-A03
plasma containment K05-A03A
targets K05-A03B

G

G-protein coupled receptor B04-K01Y C04-K01Y
Gadolinium compounds B05-A03B C05-A03B
  catalysts N03-A02B
  inorganic E34-E02B
  organic E05-P
Galactomannan gums A03-A+ B04-C02D C04-C02D D06-H
Gall extracts B04-B04H C04-B04H
Gallium arsenide (semiconductors) L04-A02A
Gallium catalysts N03-G04
Gallium compounds B05-A01B C05-A01B
  inorganic E35-F
  organic E05-D
Gallium phosphide (semiconductors) L04-A02B
Galvanising of metal M13-A
Games equipment A12-F01+
Gamma globulin B04-B04A6 B04-G01 C04-B04A6 C04-G01
Gamma ray detectior K08-A03
Ganglion blockers B12-F03 B14-F01F C12-F03 C14-F01F
Ganglioplegics B12-F03 C12-F03
Gangliosides (no structure) B04-B01B C04-B01B
Gap fillers for magnetic heads L03-B05N
Garbage fermentation D05-A04A
Gardening A12-W04+
Garments A12-C+ A12-C03 F04-C+
  fastenings F04-C04
  linings F04-C
  manufacture F04-F01
Garnets L03-B02B3
Gas
  attack compositions K04-C
  blowing agents for polymers A08-B04
  chromatography J01-E03A
  cooled reactors K05-A02A
  discharge from pressure vessels J06-B04
  discharge from vessels not under pressure J06-B05
  drying J01-E01
  drying of solids J08-H01
  filling of pressure vessels J06-B03
  generation (for blasting or propulsion) K04-C02
  holders of variable capacity J06-A
  lifting equipment (oil/gas production) H01-D02
  liquefaction J07-D01
  liquid mass transfer J01-A02
  masks A12-C02
  particle separation J01-G+
  phase (co)polymerisation A10-B A10-C+ A10-D+
  plating by decomposition or reduction M13-E
  plating by decomposition or reduction, apparatus M13-E07
  plating by decomposition or reduction, by glow or arc discharge M13-E05
  plating by decomposition or reduction, by thermal decomposition or reduction of gases on heated surfaces M13-E06
  plating by decomposition or reduction, post treatment of coatings M13-E08
  plating by decomposition or reduction, pre-treatment of substrates M13-E04
  plating by decomposition or reduction, to form inorganic coatings on metal M13-E02
  plating by decomposition or reduction, to form metallic coatings M13-E01
  plating by decomposition or reduction, to form organic coatings on metal M13-E03
  sensitive resistors L03-B01A4
  sensors J04-C04A
  separation J01-E03
  separation of dispersed particles from J01-G
  separation, by solidification or liquefaction J07-D02
  sorption J01-E02B1 J01-E03C1
  solvents J06-B06
  sorbent for storage J06-B06C
  vessels for J06-B
Gaseous blowing agents A08-B04
  process A11-B06+
Gaseous etching of metal, compositions M14-A03
Gaseous fuel based on petroleum or natural gas H06-A
  solid carbonaceous material H09-C
Gaseous lubricants H07-E
Gasification of
  liquids J01-D02
  petroleum feedstock H04-E04
  solid carbonaceous materials H09-C
Gaskets A12-H08
Gasoline
  as product, including additives H06-B01
  preparation H04-D
  preparation, catalysts H04-F02D
Gassing solids J01-G05
Gastric diease treatment B14-E10B C14-E10B
Gastric secretion
  depressants B12-J02 B14-E07 C12-J02 C14-E07
  stimulants B12-J01 B14-E11 C12-J01 C14-E11
Gastrin B04-J12 C04-J12
Gastritis treatment B14-E10B C14-E10B
Gastrointestinal dysfunction treatment B12-J01 B14-E10 C12-J01 C14-E10
Gastropodicides B12-N04 B14-B12 C12-N04 C14-B12
Gates A12-R02
Gathering lines (oil and gas) H03-A
Gear wheel crimping of fibres F01-H04C
Gears A12-H03
Gelatin A03-C01 B04-B04A6 B04-N02 C04-B04A6 C04-N02 D03-F G03-A
Gelation inhibitors A08-C06 A08-D+
Gelled food products D03-H01J
Gelling agents A08-M06
Gels A12-S B12-M02 C12-M02 E12-B08
  teeth cleaning D08-B08C
  teeth whitening D08-B14C
Gels/hydrogels B12-M02G C12-M02G
Gemstones, artificial L02-G08
Gene analysis B11-C08F C11-C08F
Gene delivery methods B12-M19 C12-M19
  by non-viral methods B12-M19B C12-M19B
  by viral methods B12-M19A C12-M19A
Gene libraries B11-C10C C11-C10C

Gene therapy B14-S03A
C14-S03A
General chemical process B11-C01
C11-C01
Other reactions B11-C01C
C11-C01C
Stereo-selective reactions B11-C01C2
C11-C01C2
Stereo-specific reactions B11-C01C1
C11-C01C1
Generation of electricity
electro-(in)organic use in L03-H01
Generators of electricity A12-E08B
L03-E05
Genetic disorder diagnosis B12-K04A3
C12-K04A3
Genetic engineering A12-W11L
D05-H
biological materials used in D05-H19
nucleic acid amplification D05-H18B
DNA sequencing method D05-H18A
new methods D05-H18
restriction enzymes used for
D05-H19A
Genomics B11-C08F+
C11-C08F+
Gentamycin B02-G
C02-G
Geological and geophysical
exploration H01-A01
Geothermal heat transfer J08-D07
Geriatric treatment B12-G04A
B14-J01A4
C12-G04A
C14-J01A4
Germ cells B04-F03
C04-F03
Germanium
catalyts N03-G02
production M25-G12
Germanium compounds B05-A02
C05-A02
inorganic E35-G
organic E05-F02A
Germicides A08-M02
B12-A01
B14-A01
C12-A01
C14-A01
D09-A01
for fabrics F03-C02B
for paints G02-A03B
for wood F05-B01
Gibberellic acids B04-B02A
C04-B02A
Gibberellins B04-B02A
C04-B02A
Gingivitis treatment B12-L04
B14-N06B
C12-L04
C14-N06B
Ginning F01-A02
Gland extract B04-B04G
C04-B04G
Gastric juices B04-B04G
C04-B04G
Snake venom B04-B04G
Spleen extract B04-B04G
C04-B04G
Glass L01
applications L01-L
batch, components
preparation L01-B01
batch, handling, mixing
preparation, pre-treatment L01-B
bending of L01-G10
bottle coating L01-G04A
bound to antigen or
antibody B11-C07A6
C11-C07A6
bound to enzyme D05-A01A5
ceramic seals D11-D01A
L01-H04B
cleaners D11-D01C
L01-G11
compositions L01-A
encapsulation of
semiconductors L04-C20B
etching L01-G05C
fillers, reinforcing agents A08-R04
film deposition in optical
fibre manufacture L01-F03F3
finished product handling L01-J
flakes, powders or
microspheres A08-R04
flat, manufacture L01-D
foamed L01-F07
furnaces for L01-C
heat treatment L01-G02
hollow ware manufacture L01-E
laminates L01-H02
layer formation by vapour
deposition L01-F06
manufacture, general L01-C
manufacture, general, by
sol-gel process L01-C06
metal seals L01-H04A
micro-beads L01-F04
passivating layers for
semiconductors L04-C12D
patterning L01-G05B
photographic supports G06-B
polishing L01-G06
polymer coatings on A12-B05
L01-G04B
polymer use in A12-W12G
rod and sheet manufacture
for optical fibre preforms L01-F03F4
recycling L01-L02
rod, tube manufacture L01-F02
shaping to special form L01-F04
solders L01-H03
soot deposition for
optical fibre manufacture L01-F03F2
soot manufacture L01-F03F2
Glass coatings G02-A05K
L01-G04
techniques L01-G04F
Glass fabric reinforced plastics A12-S08F
Glass fibre
chemical features F01-D09B
dyeing/printing F03-F12
polymer coating on A12-B05
production F01-C07E
reinforced plastics A12-S08B
reinforcing agents A08-R04
Glass sheet
coatings of inorganic
material L01-G04C
coatings of metallic
material L01-G04C1
coatings with organic
(plastic) material L01-G04B
manufacture by sol-gel
process L01-D05
wire reinforced L01-D04
Glass (non-sheet) L01-G04G
coatings of inorganic
material L01-G04G2
coatings of metallic
material L01-G04G3
coatings with organic
(plastic) material L01-G04G1
Glass-ceramics L02-J02A
applications L01-K03
compositions L01-A08
manufacture L01-K02
Glass/ceramic composites L02-J02A
Glasses (spectacles) A12-L02A
A12-V02A
Glasses
Metal coatings, processes M13-F03B
Glasshouses A12-W04A
Glassy metals
Compositions M26-C01
Production M22-G03M1
Glaucoma treatment B12-L04
B14-N03A
C12-L04
C14-N03A
Glazes L01-H08
Glazing
in building A12-R04
L01-L01
in vehicles A12-T04A
L01-L02
Glazing ceramics, refractories
or concrete L02-A07
Globulin B04-B04A6
B04-N02
C04-B04A6
C04-N02
Glomerulonephritis B14-N10
C14-N10
Glomerulonephro- pathy B14-N10
C14-N10
Gloves A12-C03
F04-C05
protective A12-C02A
D09-C
K07-A02
Glucagon B04-J03B
C04-J03B
Glucose B10-A07
C10-A07
D06-G
E10-A07
Glue A12-A+
G03-A

Glueing of polymers A11-C01+
Glutamic acid condensants A01-E04
Glutaric condensants A01-E12
Glutathione B04-C01A
B10-B02D
C04-C01A
C10-B02D
Gluten B04-B04A4
B04-N01
C04-B04A4
C04-N01
Gluten free dietary foods D03-H01T5
Glycerine - see glycerol
Glycerol E10-E04H1
condensants A01-E14
derived polyether A05-H
plasticisers A08-P
Glycidol condensants A01-E07
A01-E14
Glycidoxypropyltrimethoxy silane adhesion improver A08-M01D
Glycidyl
acrylate, (co)polymers A04-F06+
A05-A04
acrylate, condensants A01-E07
acrylate, monomers A01-D10B
acrylic esters, (co)polymers A04-F06+
A05-A04
acrylic esters, condensants A01-E07
acrylic esters, monomers A01-D10B
allyl ether monomer/ condensant A01-D11
A01-E07
alpha-chloroacrylate, (co)polymers A04-E
A05-A04
alpha-chloroacrylate, condensants A01-E07
alpha-chloroacrylate, monomers A01-D10
compound epoxy resins A05-A+
cyanoacrylate, (co)polymers A04-D
A05-A04
cyanoacrylate, condensants A01-E07
cyanoacrylate, monomers A01-D04
A01-D10
ethers of alcohols (epoxy resins) A05-A03
ethers of phenols (epoxy resins) A05-A02
methacrylate, (co)polymers A04-F06+
A05-A04
methacrylate, condensants A01-E07
methacrylate, monomers A01-D10B
Glycogenic B12-J01
B14-E11
C12-J01
C14-E11
Glycol
condensants A01-E14
di(meth)acrylate, (co)polymers A04-B09
di(meth)acrylate, monomer A01-C01
ethylene E10-E04H1
ethylene, condensant A01-E14
Glycolides derived saturated polyester A05-E02
Glycolipid B04-B01B
C04-B01B
Glycolysed/ glycolysis of polymers A10-E09+
Glycosidase
agonists B14-L01A3
C14-L01A3
inhibitors B14-D07B
C14-D07B
Glycosides (structure unknown) B04-A07E
C04-A07E
Glycosides as surfactants D11-A03B
Glyptal resins A05-E08
Gob (glass) formation L01-F02
Goggles A12-C02
Gold catalysts N02-E
N02-E04
Gold compounds B05-A03B
C05-A03B
inorganic E35-B
organic E05-N
E05-N03B
Gold production M25-G20
Golf equipment A12-F01+
1,4-Gonadienes B01-B03
C01-B03
Gonadienes (two ring "A" double bonds other than 1,4) B01-B04
C01-B04
Gonadotropin-releasing hormone B04-J07
C04-J07
Gonanes (saturated ring "A") B01-D02
C01-D02
Gonorrhea treatment B12-A05
B14-A01A5
C12-A05
C14-A01A5
Gout treatment B12-G03
B14-C02
C12-G03
C14-C02
Gowns, surgical A12-V03C1
D09-C04D
GR-N A04-B04
GR-S A04-B03+
Grading devices for food D03-K02
Graft copolymerisation A10-C03+
by irradiation, bulk or solution A10-C03C
in emulsion/suspension A10-C03B
onto formed substrates A10-C03A
Graft rejection inhibitor B14-G02C
C14-G02C
Grain (cereal) B04-A07D2
B04-A09F
C04-A07D2
C04-A09F
Grain (cereal), machines for treating D03-J01
Grains of polymers A12-S09+
Gramophone records A12-W01+
Granular (co)polymerisation A10-B05
Granular laundry detergent D11-D08
Granulating detergents D11-D03
Granulation A11-A04
J04-A05
scrap recovery by A11-C03A
Granules B12-M11D
C12-M11D
(pre)heating of A11-A02A
of polymers A12-S09+
Graphic arts masking G06-E02
Graphite E31-N
G01-A11
L02-H04
electrodes for arc melting L03-A02
electrodes for batteries L03-E01B3
fibres, chemical features of or production F01-D09A
fibres, filler/reinforcing agents A08-R03A
non-fibrous filler/ reinforcing agents A08-R03
Graphitisation
of carbon fibres E31-N02
of polymers A10-E05B
Grass B04-A07D4
B04-A08C2
C04-A07D4
C04-A08C2
Gravel packing (well treatment) H01-C08
Gravity
filters J01-F02A
separation of particles from gases J01-G02
Gravure printing plates G05-A03
Greases A12-W02+
H07-C
Green chemistry B14-Y
C14-Y
E11-K03
Green food technology D03-K13
Green food packaging D03-K08A
Green sensitive (electro)-photographic layers G06-C14C
Greenhouses A12-W04A
Greying inhibitors for detergents (excluding bleaching agent) D11-B05
Grinding J02-B
coffee D03-D01C
food D03-K
pigments/fillers G01-B01
polymers A11-A04
tea D03-D02C
Grinding wheels, grindstones A12-A03
Griseofulvin B02-G
C02-G
Ground
consolidation A12-A02
consolidation, in mining A12-W10C
vehicles A12-T+
Ground polymers A12-S09A
Grounds, sports A12-F01A

Grouts, grouting compositions A12-R08
L02-D01
L02-D12
Growth hormone (GH) B04-B02D4
B04-J05
C04-B02D4
C04-J05
Growth hormone-releasing hormone/factor B04-J09
C04-J09
Growth inhibitors (plants) B12-P09
C12-P09
C14-U01E
Growth media, artificial general B12-N08
C12-N08
C14-T01
Growth stimulant (plant) B12-P04
C12-P04
C14-U01C
GRP A12-S08B
Guanamine condensants A01-E01
Guanamines derived aminoplasts A05-B
Guanidine B10-A17
C10-A17
E10-A17
E10-A17A
E10-A17B
accelerators for crosslinking A08-C03
A08-D03
condensants A01-E05
Guano B04-B04B
B04-B04B2
C04-B04B
C04-B04B2
Guanosine B04-B03A
C04-B03A
Guar gum A03-A+
B04-C02D
C04-C02D
D06-H
Gum disease treatment B14-N06B
C14-N06B
Gum removal (petroleum refining) H04-A04
Gums A03-A+
A03-C02
B04-C02D
C04-C02D
D06-H
Gunnable refractories L02-E05
Gut for racquets F04-G
Gutta percha A03-B
Guttering A12-R02
Gymnasium equipment A12-F01+
Gymnosperms B04-A08C1
C04-A08C1
B04-A08F+
C04-A08F+
Gypsum E34-D02
board A12-R01A
cement L02-C05
products L02-D07A

H

H1-secretion inhibitors B12-D06B
B14-L10
C12-D06B
C14-L10
H2-secretion inhibitors B12-D06A
B14-L11
C12-D06A
C14-L11
Hackling of fibres F01-F01
Hematinics B12-H01
B14-F03
C12-H01
C14-F03
Hematopoietics B12-H01
B14-F03
C12-H01
C14-F03
Hematosis treatment B12-H01
B14-F03
C12-H01
C14-F03
Hemochromatosis treatment B12-H01
B14-F03
C12-H01
C14-F03
Hemodialysis apparatus J01-C03B1
A12-W11A
Hemoglobin B04-B04D2
C04-B04D2
Hemolytics B12-H02
B14-F04
C12-H02
C14-F04
Hemonchosis treatment B12-B02
B14-B03A
C12-B02
C14-B03A
Hemorrhoids treatment B12-J04
B14-E04
C12-J04
C14-E04
Hemostatics B12-H04
B14-F08
C12-H04
C14-F08
Hafnium
alloys M26-B13
production M25-G28
Hafnium catalysts N03-B
N03-B02
for polymerisation A02-A06+
Hafnium compounds B05-A03B
B05-A04
C05-A03B
C05-A04
inorganic E35-L
E35-Q
E35-R
organic E05-N
E05-N01
Hair (or extracts) B04-B04E
C04-B04E

artificial (e.g. wigs) A12-V04 D08-B01 F04-G
brushes A12-V04A
care compositions A12-V04A D08-B
conditioners A12-V04A D08-B03B
dyeing preparations A12-V04A D08-B06
implanted A12-V02
preparation for treating B12-L05 B14-R02 C12-L05 C14-R02
rinsing preparations D08-B04
shampoos A12-V04A D08-B03
sprays A12-V04A D08-B05
waving, straightening or fixing preparations D08-B05
Hairpieces A12-V04 D08-B01 F04-G
Halates
Dihaloamines (organic) B10-A02 C10-A02
inorganic B05-C07 C05-C07 E31-C
organic B10-A02 C10-A02 E10-A02
Half tones G06-E01
Halides
Cl element production E31-B02B
F, Br, I compound production E31-B02C
inorganic B05-C07 C05-C07
inorganic production E31-B02
inorganic use E31-B03
organic B10-H02 C10-H02 E10-H02 E10-H03 E10-H04
Halides (ceramic) L02-H
Halides of metal, catalysts for polymerisation N04-D01 A02-A06B
Halides or oxyhalides of transition metals, catalysts
Halites
inorganic B05-C07 C05-C07 E31-C
organic B10-A02 C10-A02 E10-A02
Hall effect devices L04-E07
Halo-substituted styrenes (co)polymers A04-C
monomer A01-D02
Haloalkylated/haloalkylation of polymers A10-E03
Haloamines
organic B10-A02 C10-A02 E10-A02
Haloarylated/haloarylation of polymers A10-E03
Halochromic dye precursors E26-B
Halogen
Cl compound production E31-B02D
Cl element production E31-B02B
element B05-C07 C05-C07
element production by electrical method E31-B01
element production by non-electrical method E31-B02
element use E31-B03
F, Br, I compound production E31-B02C
F, Br, I element production E31-B02A
halides (organic) B10-A02 C10-A02 E10-A02
oxides B05-C07 C05-C07 E31-C
oxyacid (or salt) B05-C07 C05-C07 E31-C
Halogen catalysts N04-D
Halogen free volatile blowing agents A08-B04B
Halogen in ring, organic compound E05-K
Halogen or halogen generators as disinfectants other than of food or air D09-A01A
Halogen-containing addition polymer coatings (paint) A12-B01F
addition polymer for coating metal A12-B04E
aliphatic mono-unsaturated (excluding N) polymer A04-E+
flame retardants A08-F04+
Halogenated oils B04-B01A C04-B01A
Halogenated waxes B04-B01A C04-B01A
Halogenated/halogenation of polymers A10-E04A
Halogenation (process) for petroleum refining H04-E14
Halohydrocarbon volatile blowing agents A08-B04A
Halohydrocarbons containing
bromine (others) B10-H02D C10-H02D E10-H02D
bromine linked to aromatic ring B10-H02C C10-H02C E10-H02C
chlorine (others) B10-H02F C10-H02F E10-H02F
chlorine bonded to aromatic ring E10-H03C1 E10-H04C1
chlorine linked to aromatic ring B10-H02E C10-H02E E10-H02E
chlorine only E10-H03C E10-H03C2 E10-H03C3 E10-H03C4 E10-H03C5 E10-H04C E10-H04C2 E10-H04C3 E10-H04C4 E10-H04C5
fluorine (others) B10-H02B C10-H02B E10-H02B
fluorine and chlorine only E10-H03B E10-H03B1 E10-H03B2 E10-H04B E10-H04B1 E10-H04B2
fluorine bonded to aromatic ring E10-H03A1 E10-H04A1
fluorine linked to aromatic ring B10-H02A C10-H02A E10-H02A
fluorine only E10-H03A E10-H03A2 E10-H03A3 E10-H04A E10-H04A2 E10-H04A3
iodine (others) B10-H02D C10-H02D E10-H02D
iodine linked to aromatic ring B10-H02C C10-H02C E10-H02C
Halohydrocarbons, removal of D04-B06E
Halohydrogenated/halohydrogenation of polymers A10-E04
Halonium, organic compounds B10-A01 C10-A01 E10-A01
Haloprenes including chloroprene (co)polymers A04-B08
monomer A01-C04
Halosulphonated/halosulphonation of polymers A10-E12B
Hammering metal sheet, wire, rod tube, or profile M21-J
control devices M21-J03
equipment M21-J02
processes M21-J01
Handbags A12-T
Handkerchiefs F04-C01
Handles (packaging) A12-P

Handling of
  glass, batches L01-B
  glass, finished products L01-J
  glass, post-forming L01-G01A
  polymers/plastics, moulded articles A11-C06
  polymers/plastics, raw materials A11-A
  textile webs F03-K01
Handrails A12-R02
Hands, artificial A12-V02, D09-C01D
Hapten bound to enzyme D05-A01A3
Haptens B04-B04C7, C04-B04C7
Hard alloys based on carbide, nitride, boride or silicide M26-B12
Hard Candy D03-E10A
Hard facing M23-E03
Hard surface cleaners D11-D01B
  Abrasive types D11-D01B3
Household (other) D11-D01B5
  Industrial D11-D01B6
Hardboard A12-A04+, F05-A07
Hardeners for resins A08-C+, A08-D+
Hardeners, photographic G06-H14
Harsh abrasive oxides L02-F04
Hats A12-C03, F04-C05
Haul-off
  after extrusion A11-B07D
  of finished articles A11-C06
  preliminary processing A11-A
Hay B04-A07D4, B04-A09H, C04-A07D4, C04-A09H
Haze A09-A02
HDPE A04-G02+
Head boxes of paper making machines F05-A04A
Headache treatment B12-D01, B14-C01, C12-D01, C14-C01
Heads
  magnetic A12-E08A2, L03-B05M
  thermal inkjet L03-G10B
Healds F02-A02
Health foods
  diabetic D03-H01T5
  dietary fibre D03-H01T1
  gluten free D03-H01T5
  high calorie D03-H01T4
  low calorie D03-H01T3
  low carbohydrate D03-H01T3B
  low fat D03-H01T3A
  other (not prebiotic, not probiotic) D03-H01T2B
  prebiotic D03-H01T2A
  probiotic D03-H01T2A
  special dietary requirements D03-H01T5
Health physics K07-X
Heart disease treatment B12-F01, B14-F01, C12-F01, C14-F01
Heart disorder diagnosis B12-K04A2, B12-K04G2B, C12-K04A2, C12-K04G2B
Heart extracts B04-B04H, C04-B04H
Heart valves, artificial A12-V02, D09-C01C
Hearth steel processing M24-B02B
Hearts, artificial D09-C01C
Heat
  collectors (polymer use) A12-R02B
  developable material for photosensitive systems G06-C08
  electrical use A12-E10
  insulation A12-R06, L02-D15
  insulation, for pipes A12-H02D1
  insulation, for vehicles A12-T04B
  properties A09-A01+
  sealing A11-C01+
  setting A11-B02+
  setting, fabric F03-A02
  setting, fibres A11-B02C, F01-H05
  setting, film A11-B02C
  setting, yarn F01-H05
  sinks (electronics) L03-G
  sinks for semiconductor devices L04-C25
  stabilisers A08-A04+
  stabilisers, for fabrics F03-C07
  stability of polymers A09-A01A
  sterilisation of food D03-H02B
Heat exchanger A12-W11G
  cleaning J08-E
  control arrangements J08-D05
  deposit prevention J08-D02
  direct contact J08-B
  elements J08-D01
  indirect contact J08-C
  modifying heat transfer J08-D04
  nuclear plant K06-B
  petroleum refining H05-M
  special features J08-D03
  with moving conduits J08-C03
  with stationary conduits J08-C01, J08-C02
Heat pipes J08-C04
Heat sensitive
  materials (electrical) A12-E10
  recording A12-L05A, G06-F08+
Heat storage J08-S
  compositions A12-W11G, J08-S01
  devices L03-H04A, J08-S02
  devices, non-electric A12-R02B
Heat transfer
  apparatus J08-D
  compositions A12-W11G
  fluids G04-B01
  from exhaust gases J08-D08
  geothermal J08-D07
  media H08-D09, J08-D06
  modification in heat exchanger J08-D04
Heat treatment A11-A02+, A11-B02+
  apparatus for ferrous metal M24-D04
  apparatus for ferrous metal, furnaces for ingots M24-D04A
  apparatus for non-ferrous metal M29-C02
  apparatus for non-ferrous metal, furnaces for treating strip wire or sheet M24-D04B
  apparatus for non-ferrous metal, furnaces, coilers M24-D04C
  apparatus for non-ferrous metal, other furnaces M24-D04D
  apparatus for non-ferrous metal, quenching baths M24-D04E
  furnaces for semiconductor manufacture L04-D05
Heat treatment of
  ferrous metal M24-D02
  ferrous metal, annealing M24-D02B
  ferrous metal, cast iron M27-B03
  ferrous metal, iron alloys M27-B
  ferrous metal, multistage process M24-D02D
  ferrous metal, specific articles M24-D03
  ferrous metal, steel alloys M27-B04
  ferrous metal, surface hardening M24-D02A
  ferrous metal, using heat treatment baths M24-D02C
  fibres F01-H05
  glass L01-G02
  non ferrous metal or alloy M29-C
  non-ferrous metal or alloy, apparatus M29-C02
  non-ferrous metal or alloy, specific articles M29-C01
  polymers A11-A02+, A11-B02+
  semiconductors L04-C16
Heaters (electrical) polymer use A12-E10
Heating
  electrical A12-E10, L03-H04A
  elements used in deodorization D09-B01B
  fibres, fabrics A11-A02A
  films/sheets, divided forms A11-A02A
  other forms A11-A02B
Heating and cooling A11-A02+
Heavy clay products L02-G02
Heavy concrete L02-D02
Heavy duty cleaning agents D11-D01B
Heavy duty laundry detergents D11-D07A

Heavy metals
compounds as disinfectants
other than of food or air D09-A01A
poisoning treatment B12-J05C
B14-M01D
C12-J05C
C14-M01D
removal from waste water D04-B05
D04-B05A
waste encapsulation L02-D
Heavy water E31-A
K05-B05A
Heddles F02-A02
Helium (element) B05-B02C
C05-B02C
E31-J
Helium compounds B05-B02C
C05-B02C
inorganic E31-J
organic E05-K
Helmets A12-C0
Heparin B04-C02E
C04-C02E
Heparin (optionally modified) B04-C02E1
C04-C02E1
Hepatic condition treatment C12-G02
Hepatic extracts B04-B04H
C04-B04H
Hepatitis treatment B12-A01
B12-G02
C12-A01
C12-G02
general or Non A Non B B14-N12
C14-N12
hepatitis A B14-A02B3
C14-A02B3
hepatitis B B14-A02A5
C14-A02A5
hepatitis C B14-A02B9
C14-A02B9
hepatitis D B14-A02A8
C14-A02A8
Hepatoprotectives B12-G02
B14-N12
C12-G02
C14-N12
Herbal tea D03-D03
Herbicide
antidote B12-J05D
B14-M01E
C12-J05D
C14-M01E
aromatic crop C14-V02A
cereal crop C14-V02B
combating resistant weeds C14-V00X
fruit crop C14-V02C
general and total B12-P05
C12-P05
C14-V01
oil crop C14-V02D
ornamental crop C14-V02E
post-emergence C14-V03A
post-emergence, pre-emergence general C14-V03
pre-emergence C14-V03B
selective B12-P06
C12-P06
C14-V02
vegetable crop C14-V02F
Herbicides
use of polymers A12-W04C
Het-acid condensant A01-D08
A01-E12
Heteroatom containing monomers A01-A00A
Heterocyclic compound catalysts N05-D
Heterocyclic compound containing phosphorus
with P-C bond B05-B01E
C05-B01E
E05-G01
with P-halogen bond B05-B01H
B05-B01J
C05-B01H
C05-B01J
with P-N bond B05-B01J
C05-B01J
E05-G04
with P-O (or S) bond B05-B01M
C05-B01M
E05-G07
Heterocyclic compounds as disinfectants other than of food or air (excluding D09-A01A+ D09-A01B) D09-A01C
Heterocyclic polymers (excluding polyimides) A05-J02
Heterocyclics, fused ring B06
C06
E06
containing "N" and "O" only B06-E
C06-E
E06-E
containing "N" and "S" and "O" only B06-G
B06-G
C06-G
C06-G
E06-G
containing "N" and "S" only B06-F
C06-F
E06-F
containing "N" only B06-D
B06-D
C06-D
E06-D
containing "O" only B06-A
C06-A
E06-A
containing "S" and "O" only B06-C
C06-C
E06-C
containing "S" only B06-B
C06-B
E06-B
containing ring halogen B05-C07
C05-C07
E05-K
general B06-H
C06-H
E06-H
spirofused B06-S
C06-S
Heterocyclics, mononuclear B07
C07
E07
containing "N" and "O" only B07-E
C07-E
E07-E
containing "N" and "S" and "O" only B07-G
C07-G
E07-G
containing "N" and "S" only B07-F
C07-F
E07-F
containing "N" only B07-D
C07-D
C07-E
E07-D
containing "O" only B07-A
C07-A
E07-A
containing "S" and "O" only B07-C
C07-C
E07-C
containing "S" only B07-B
C07-B
E07-B
containing ring halogen B05-C07
C05-C07
E05-K
general B07-H
C07-H
E07-H
spirofused B07-S
C07-S
Hexacene B08-A
C08-A
E08-A
Hexachloroendo- methylene tetrahydrophthalic acid condensant A01-D08
A01-E12
1,4-Hexadiene
(co)polymers A04-B
monomer A01-C05
Hexafluoropropylene E10-H02B
E10-H03A3
E10-H04A3
(co)polymers A04-E10D
(co)polymers, with TFE A04-E09
monomer A01-D12
Hexahydrophthalic acid condensant A01-E12
Hexamethoxymethyl melamine A10-E08C
Hexamethylene diamine E10-B01E
condensant A01-E05
Hexamethylene diisocyanate E10-A14
E10-A14A
E10-A14B
condensant A01-E02
Hexamethylene- tetramine B06-D17
C06-D17
E06-D17
condensant A01-E05

crosslinker for addition and ethylenically unsaturated (co)polymers A08-C09
crosslinker for other polymers A08-D03
Hexamine - see Hexamethylene- tetramine
Hexane diamine E10-B01E
condensant A01-E05
1,6-Hexane diol condensant A01-E14
Hexene-1
(co)polymers A04-G
monomer A01-D13
Hexyl acrylate (co)polymers A04-F06+
Hexylene glycol condensant A01-E14
Hides (or extracts) B04-B04E C04-B04E D07-A D07-B
High calorie foodstuff D03-H01T4
High density polyethylene A04-G02+
High energy rate forming M21-D
High frequency welding of plastics A11-C01+
High impact
mixtures of polymers A07-A+ A09-A05A
polystyrene A04-C02+ A04-C02B1 A09-A05A
High pressure addition (co)polymerisation A10-B
High pressure polyethylene A04-G02+
High speed melt spinning A11-B15B1 F01-C08B1
High temperature detergents D11-D01G
High throughput screening B11-C10A C11-C10A
Highways, polymer use A12-R09
Hinges, polymer use A12-H06
HIPS (high impact polystyrene) A04-C02+ A04-C02B1 A09-A05A
Histamine agonist/mimetic B14-L05 C14-L05
Histaminergic B14-L05 C14-L05
Histoma treatment C12-G07
Histomoniasis treatment C12-B01
Histomonicide B14-A03D C14-A03D
Hole manufacture in semiconductor processing L04-C06C
Hollow fibres A12-S05A F01-E03
Hollow ware, glass, forming L01-E
Hollow ware, glass, transfer mechanism for L01-E07
Holmium compounds B05-A03B C05-A03B
catalysts N03-A02B
inorganic E34-E02B
organic E05-P
Holograms, holography G06-D G06-E L03-G04
materials for L03-G04B9
Holomycin B02-H C02-H
Home furnishings of fabric F04-D+
Homogenising of polymers A11-A03+
Homopolymerisation
addition A10-B+
condensation A10-D+
Honey B04-D01A C04-D01A
Honeycomb structures A12-R06
Hormonal activity general B12-G04 B14-D01 C12-G04 C14-D01
Hormone inhibitor B12-G01A B14-D02 C12-G01A C14-D02
Hormone level determination B12-K04A6 C12-K04A6
Hormones (activity) C12-G04
Hormones (general) B04-B02D B04-J01 C04-B02D C04-J01
Horn (or extract) B04-B04E C04-B04E
Horticulture A12-W04+
foam use in A12-S04C
Hoses (including tubes, pipes and fittings) A12-H02+
fabric use F04-E
fittings A12-H02C
linings and coatings A12-H02D
reinforced A12-H02B
unreinforced A12-H02A
Hosiery A12-C03 F04-C02
Hot dip metal coatings M13-A
Hot pressing
ceramic powders L02-A04
powder metallurgy M22-H03C
Hot stamping of polymers A11-C04C
Hot tops M22-G02B
refractories for L02-E06
Hot working of
cast iron alloys M27-B03
ferrous metal M24-D01A
iron alloys M27-B
non-ferrous metal and alloys M29-A
steel alloys M27-B04
Household, polymer use in A12-D+
polyethylene A04-G02E3
polypropylene A04-G03E1
HPLC B11-C08D2 C11-C08D2
5-HT agonist B14-J03 C14-J03
5-HT antagonist B14-J04 C14-J04
Human growth hormone (hGH) B04-J05 C04-J05
Humic acid B04-A07D1 B04-A09J C04-A07D1 C04-A09J
Humus B04-A07D1 B04-A09J C04-A07D1 C04-A09J
Huntingtons's disease treatment B14-J01A4 C14-J01A4
Husks from seeds B04-A07D2 B04-A09F C04-A07D2 C04-A09F
Hybidisation tests (DNA) (process) B11-C08E5 C11-C08E5
Hybrid circuits L04-F06
Hybridomas B04-F05 C04-F05 D05-H15A
Hydraulic fluids A12-W02+ H08-D05
Hydrazides of acrylic acids
(co)polymers A04-D04+
monomer A01-D06
Hydrazine B05-C03 C05-C03 E31-H
compounds (organic) B10-A19 C10-A19 E10-A19 E10-A19A E10-A19B
Hydrazone B10-A19 C10-A19 E10-A19 E10-A19A E10-A19B
Hydride of metal, catalysts N05-A
Hydride, inorganic (general) B05-C08 C05-C08 E31-A
Hydrin ® A05-H04
Hydrobrominated/ hydrobromination of polymers A10-E04
Hydrocarbon synthesis H04-E05
Hydrocarbon- aldehyde (or ketone) condensates A05-J08
Hydrocarbons B10-J C10-J E10-J
aliphatic conjugated diolefinic, (co)polymers A04-B+
aliphatic conjugated diolefinic, monomers A01-C05

aliphatic non-conjugated di- or poly-olefinic, (co)polymers A04-B+
aliphatic non-conjugated di- or poly-olefinic, monomers A01-C05
aliphatic, monoolefinic, (co)polymers A04-G+
aliphatic, monoolefinic, monomers A01-D13
aromatic, diolefinic, (co)polymers A04-B10
aromatic, diolefinic, monomers A01-C03
aromatic, monoolefinic, (co)polymers A04-C+
aromatic, monoolefinic, monomers A01-D03
blowing agents for polmers A08-B04B
cycloaliphatic, diolefinic, (co)polymers A04-B
cycloaliphatic, diolefinic, monomers A01-C05
cycloaliphatic, monoolefinic, (co)polymers A04-G
cycloaliphatic, monoolefinic, monomers A01-D13
unsubstituted condensants A01-E

Hydrochlorinated/hydrochlorination of polymers A10-E04
Hydrocortisone B01-C02 C01-C02
Hydrocracking H04-B03
Hydroentangling of non-woven fabrics F02-C02F
Hydrofluoric acid polymerisation catalyst A02-A04
Hydrofluorinated/hydrofluorination of polymers A10-E04
Hydroforming H04-C03
Hydroformylation reaction E11-F02A
Hydrogels of polymers A12-S
Hydrogen
as chain transfer agent A02-B
element B05-C08 C05-C08 E31-A
halides (or salts) B05-C07 C05-C07
halides (or salts) production E31-B02
halides (or salts) use E31-B03
manufacture (in petroleum refining) H04-E06
sulphide (or inorganic salt) B05-C05 C05-C05
sulphide (or inorganic salt) production E31-F02
sulphide (or inorganic salt) removal from water D04-B07D
sulphide (or inorganic salt) use E31-F04

Hydrogen catalysts N05-A
Hydrogen peroxide B05-C08 C05-C08 E31-E01
catalyst for polymerisation A02-A01
crosslinker for addition (co)polymers A08-C05
crosslinker for other polymers A08-D
redox polymerisation catalyst A02-A03

Hydrogenated/hydrogenation of polymers A10-E13
Hydrogenation processes B11-C01 C11-C01 E11-D
of unsaturated carbon-carbon (C-C) bonds E11-D01
of unsaturated carbon-carbon (C-C) bonds (catalytic) N07-B01
other than of unsaturated carbon-carbon (C-C) bonds E11-D02
petroleum refining H04-E08

Hydrogen production
Electrical methods E31-A02A
In fuel cell L03-E04I
Storage E31-A02B
Other E31-A02C

Hydrohalogenated/hydrohalogenation of polymers A10-E04
Hydroiodinated/hydroiodination of polymers A10-E04
Hydrolase B04-B02C3 B04-L05 C04-B02C3 C04-L05
agonists B14-L01A3 C14-L01A3
enzyme processes D05-A01B3 D05-A02C
inhibitors B12-G01B3 B14-D07 C12-G01B3 C14-D07
production by fermentation D05-C03C

Hydrolysed polymers A10-E09+
ethylene-vinyl acetate copolymer A10-E09A A10-E09B
polyvinyl acetate A10-E09A A10-E09B

Hydrolysis
catalytic reaction N07-F06
fabric treatment F03-C08
non-ferrous metal extraction M25-B01
of polymers A10-E09

Hydrometallurgical extraction M25-B
Hydroperoxide
aromatic E10-A04B1E
catalyst for polymerisation A02-A01
crosslinker for addition (co)polymers A08-C05
crosslinker for other polymers A08-D
organic non-aromatic E10-A04B2E
redox polymerisation catalyst A02-A03

Hydrophobization
treatment of fabrics A12-G03 A12-S05R F03-C02A
Hydroquinone condensant A01-E13
Hydrotropes in detergent compositions D11-B16
Hydroxamic acid (organic) B10-A18 C10-A18 E10-A18 E10-A18A E10-A18B
Hydroxide E31-D05
Hydroxy acid based saturated polyesters A05-E02
Hydroxy acids condensants A01-E11 A01-E12 A01-E14
Hydroxy acids, carboxylic B10-C04 C10-C04 E10-C04
Hydroxy condensants A01-E13 A01-E14
Hydroxy group containing vinyl polymer based polyurethanes A05-G
Hydroxy group incorporation in polymer (excluding hydrolysis) A10-E23
Hydroxy group terminated polybutadiene A10-E23

Hydroxyalkyl (meth)acrylates
(co)polymers A04-F06+
monomer A01-D10B
paints, coatings G02-A02C2

Hydroxyamines condensants A01-E05 A01-E13 A01-E14
Hydroxybutyric acid based polyester A05-E02B
Hydroxyethyl cellulose A03-A04+
Hydroxyethylamine condensant A01-E05 A01-E14
Hydroxylamine B05-C03 C05-C03 E31-H
organic compounds B10-A18 C10-A18 E10-A18 E10-A18A E10-A18B

1,4-Hydroxymethyl cyclohexane condensant A01-E14
Hydroxynaphthalene condensant A01-E13
17-Hydroxyprogesterones (excluding cortisones and cortisols) B01-C03 C01-C03
Hydroxypropyl cellulose A03-A04+ B04-C02A2 C04-C02A2
Hydroxypropyl ethyl cellulose A03-A04+ B04-C02A2 C04-C02A2

Hydroxypropyl methyl cellulose A03-A04+ B04-C02A2 C04-C02A2

5-Hydroxytryptamine
- agonist B14-J03 C14-J03
- antagonist B12-G01 B14-J04 C12-G01 C14-J04

Hydroxvaleric acid based polyester A05-E02B

Hygiene A12-V03C1 D09-A D09-C

Hygroscopic fabric treatment F03-C05

Hyoscyamine B04-A01 C04-A01

Hypalon ® A10-E12B

Hyperglycaemic B14-F10 C14-F10

Hyperopics B14-J05B C14-J05B

Hypertensives B12-F04 B14-F02A C12-F04 C14-F02A

Hyperthermic B14-C05 C14-C05

Hypertonia treatment B12-C05 B14-J05A C12-C05 C14-J05A

Hypertriglyceremia treatment B14-F06B C14-F06B

Hypnotics B12-C07 B14-J01B1 C12-C07 C14-J01B1

Hypoallergic B12-D02 B14-G02A C14-G02A

Hypoallergics C12-D02

Hypoglycaemics B12-H05 B14-F09 C12-H05 C14-F09

Hypohalite
- inorganic C05-C07 E31-C
- organic B10-A02 C10-A02 E10-A02

Hypohalite (inorganic) B05-C07

Hypoleukocytosis treatment B12-G05 B14-H01A C12-G05 C14-H01A

Hyponitrite polymerisation catalysts A02-A02

Hyposulphites
- inorganic B05-C05 C05-C05 E31-F
- organic B10-A09C C10-A09C E10-A09C

Hypotension treatment B14-F02A C14-F02A

Hypotensives B12-F05 B14-F02B C12-F05 C14-F02B

Hypothalamo- hypophysial system treatment B12-E01 C12-E01

Hypothermia treatment B14-C05 C14-C05

Hypothermics B12-D08 B14-C04 C12-D08 C14-C04

Hypoxaemia treatment B12-E01 B12-K06 B14-K01 C12-E01 C12-K06 C14-K01

Hytrel ® A05-E09

I

I2L devices L04-E06

Ice
- for special purposes J07-B02
- production J07-B01
- working and distribution J07-B03

Ice cream D03-E08
- coating D03-E02
- packing D03-E04
- shaping of D03-E03

Identification of
- fabrics F03-K02
- fibres F01-H

Identity cards A12-D G06-D

Igniters, chemical contact K04-B02

IIL devices L04-E06

IIR A04-G05A

Image
- converters L03-G10E
- formation by exposure to light, radiation etc. G06-G18
- sensors, semiconductor L04-E05A
- stabilisers (photographic) G06-H11
- toners
  - toners, electro-photographic A12-L05C2 G06-G05 G06-G06
  - toners, non-electrophotographic G06-H05

Imaging body parts for diagnosis B12-K04C C12-K04C

Imaging methods, electrophotographic G06-G08A
- using isotopes, tracers K08-B01
- using X-rays K08-E01

Imbibition dye transfer systems, photographic G06-G12

Imidation, imidated polymers A10-E14 A10-E17

Imidazo-pyridines (three N-atoms) B06-D08 C06-D08 E06-D08

Imidazo-pyridines (two N-atoms) B06-D05 C06-D05 E06-D05

Imidazo-pyrimidines (four N-atoms) B06-D09 C06-D09 E06-D09

Imidazo-pyrimidines (three N-atoms) B06-D08 C06-D08 E06-D08

Imidazole B07-D09 C07-D09 E07-D09
- crosslinkers A08-C09 A08-D03

Imidazolidinetrione polymer A05-J02
2-imidazolidinone condensant A01-E05
Imide - see appropriate acid
Imine (organic) B10-A20
C10-A20
E10-A20
E10-A20A
E10-A20B
Immersion plating of metal M13-B
Immersion, coating with
polymer by A11-B05A
Immobilised enzymes A12-W11L
D05-A01
Immobilised microorganisms A12-W11L
D05-A03A
Immunoglobulin general B04-B04C6
B04-G27
C04-B04C6
C04-G27
Immunoglobulin A B04-B04C6
B04-G27A
C04-B04C6
C04-G27A
Immunoglobulin D B04-B04C6
B04-G27D
C04-B04C6
C04-G27D
Immunoglobulin E B04-B04C6
B04-G27E
C04-B04C6
C04-G27E
Immunoglobulin G B04-B04C6
B04-G27G
C04-B04C6
C04-G27G
Immunoglobulin M B04-B04C6
B04-G27M
C04-B04C6
C04-G27M
Immunoglobulin X B04-B04C6
B04-G27X
C04-B04C6
C04-G27X
Immunoglobulin Y B04-B04C6
B04-G27Y
C04-B04C6
C04-G27Y
Immunological disease diagnosis
B12-K04A8
C12-K04A8
Immunomodulatory B14-G03
C14-G03
Immunoregulants B12-A01
B12-A06
B12-D02B
B14-G03
C12-A01
C12-A06
C12-D02B
C14-G03
Immunostimulants B12-A01
B12-A06
C12-A01
C12-A06
general and other B14-G01
C14-G01
Immunosuppressant B12-D02B
B14-G02
C12-D02B
C14-G02
Impact modified polymer
mixtures A07-A+
A09-A05A
Impact strength, behaviour
of polymers A09-A05A
Impermeability
property of polymer A09-A09
Implants B11-C04A
C11-C04A
D09-C01F
Impotency treatment B14-P02
C14-P02
Impregnants for concrete,
polymeric A12-B08
L02-D14M
Impregnating with polymers A11-B05+
A11-B09+
Impregnation (powder
metallurgy) M22-H03E
Impregnations of polymers,
use A12-B+
Impression devices, dental D08-A06
In vivo radiopharmaceutical
diagnostics B12-K04B
C12-K04B
In-camera processing G06-E03
In-situ foaming A11-B06+
Incandescent
envelopes or screen L03-C04
production L03-C04A
Incandescent lamps L03-C05
Incineration of waste material J09-C
Incombustibility of polymers A09-A01
Incontinence treatment B14-N07D
C14-N07D
Incontinence pads D09-C04E
Incorporation of
boron into polymers A10-E22
inserts during moulding A11-B
metal into polymers A10-E21+
A10-E22+
phosphorus into
polymers A10-E20
silicon into polymers A10-E22A
Indazole B06-D05
C06-D05
E06-D05
Indene E10-J02B
(co)polymers A04-C
monomer A01-D03
Indium
alloys M26-B
catalysts N03-G01
production M25-G13
Indium antimonide, indium
phosphide L04-A02C
Indium compounds B05-A01B
C05-A01B
inorganic E35-F
inorganic compound pigment
G01-A16
organic E05-D
Indole B06-D01
C06-D01
E06-D01
Indolizine B06-D04
C06-D04
E06-D04
Indolmycin B02-I
C02-I
Inducing flowering in plants C14-U01F
Inductances L03-B02C
Induction heating (electric,
welding and cutting) M23-D03
Industrial C14-W
Industrial culture media
preparation D05-A04B
Industrial effluent treatment E11-Q02B
Industrial fabrics F04-E+
Inert gas (group O) catalysts N04-A
Inert gas compounds
inorganic B05-B02C
organic B05-B02C
E05-K
Inert gas compounds organic C05-B02C
Inert gas-element or inorganic
compound C05-B02C
Inert gas-element or inorganic
compounds E31-J
Inert silicon compound D11-B11
D11-B11B2
Inertia separation of
particles from gases J01-G02
Infection diagnosis B12-K04A4
B12-K04G1A
C12-K04A4
C12-K04G1A
bacterial infection diagnosis
B12-K04A4B
B12-K04G1C
C12-K04A4B
C12-K04G1C
parasitic infection diagnosis
B12-K04A7
12-K04G1E
C12-K04A7
C12-K04G1E
viral infection diagnosis B12-K04A4A
B12-K04G1B
C12-K04A4A
C12-K04G1B
Infectious development
(photographic) G06-G01
Infertility treatment B14-P02
C14-P02
antiabortive B14-P03
C14-P03
Infiltration (powder metallurgy)
M22-H03E
Inflammability of fabrics F03-C03+

Inflammability of polymers A09-A01
Inflammatory bowel treatment
B14-E10C1
C14-E10C1
Inflation forming of tubular films A11-B07A
A12-S06A
Influenza treatment
antiviral B12-A06
C12-A06
other B12-D08
C12-D08
Infra-red
absorbers B12-L08
B14-R05
C12-L08
C14-R05
detectors, semiconductors L04-E05C
dyes E24-D
radiation sensitive systems G06-F08+
transparent glass L01-L05
Ingot casting M22-G02
methods M22-G02A
Ingot moulds, linings and hot tops
M22-G02B
Inhalants B12-M01B
C12-M01B
Inhaler B12-M01B
C12-M01B
Dry powder B12-M01B1
C12-M01B1
Multidose B12-M01B2
C12-M01B2
Inhibitor general and other B14-L06
C14-L06
Inhibitors
corrosion A12-W11J
M14-F
corrosion, in water systems D04-A03C
pickling M12-A02
polymerisation A02-C
scale A12-W11J
scale, in water systems D04-A03A
scale, on polymerisation vessels A08-S08
A10-G02
Initiated by ionizing radiation light etc.
addition (co)polymerisation A10-B06
curing, crosslinking of polymers A11-C02B
graft copolymerisation A10-C03C
modification of polymers A10-E10
Initiators for polymerisation A02-A+
Injection gun B11-C04C
C11-C04C
Injector, needle free B11-C04E
C11-C04E
Injection moulding A11-B12+
equipment excluding moulds A11-B12C
moulds A11-B12B
to form specific goods A11-B12A
Injection-blow moulding A11-B10
A11-B12+
Ink jets G05-F03
heads L03-G10A1
Inks for ink-jets A12-W07D1
Inks A12-W07D
(polymeric) for printing G02-A02A
dyes and pigments for A12-W07E
G02-A04B
for ink-jet printers A12-W07D1
L03-G09X
magnetic L03-B02H
removers G02-A03C
writing inks, inks for pens A12-D05B
G02-A04A
Inner transition metal compounds B05-A03B
C05-A03B
inorganic E34-E
organic E05-P
Inner tubes of tyres A12-T01+
Inorganic and metallic fibres
chemical features F01-D09+
dyeing/printing F03-F12
Inorganic cellulose esters A03-A03
Inorganic compounds as disinfectants, other than of food or air D09-A01A
Inorganic fibres dyeing/printing
F03-F12
Inorganic nanostructures E31-U
nanofilms E31-U03
nanoparticles E31-U01
nanorods E31-U02
nanotubes E31-U02
nanowhiskers E31-U02
Inorganic peroxide, persalt B05-C08
C05-C08
E31-E
catalysts for polymerisation A02-A01
crosslinkers for ethylenically unsaturated polymers A08-C05
crosslinkers for other polymers A08-D
redox polymerisation catalysts A02-A03
Inorganic photoconductors, for radiation sensitive systems G06-F07+
containing zinc oxide or selenium (alloy or compound) G06-F07A
Inorganic pigments A08-E02
G01-A+
Inorganic polymer coatings A12-B01C
G02-A01+
general A12-B01C
on metal A12-B04C
Inorganic polymers A06+
Inorganic resins for coating metal A12-B04C
Inorganic treatment of pigments/filler G01-B02
Inotropics B12-E02
B12-F01C
C12-E02
C12-F01C
general B14-J05
C14-J05
negative B14-J05A
C14-J05A
negative cardiac B14-F01C
C14-F01C
positive B14-J05C
C14-J05C
positive cardiac B14-F01B
C14-F01B
Insect attractant B14-B06
C14-B06
Insect extracts B04-B04M
C04-B04M
Insect repellents A08-M02
B12-L06
B14-B05
C12-L06
C14-B05
D09-E02
fibre/fabric treatment, non-resinous A12-S05R
F03-C02B
fibre/fabric treatment, resinous A12-G
F03-C02B
Insect sterilants B12-K03
B14-B07
C12-K03
C14-B07
Insecticide B12-N02
C12-N02
coleoptera (beetle) B14-B04B1
C14-B04B1
dictyoptera (cockroach) B14-B04B2
C14-B04B2
diptera (house fly, mosquito,gnat) B14-B04B3
C14-B04B3
ephemeroptera (mayfly) B14-B04B4
C14-B04B4
hemiptera (aphid) B14-B04B5
C14-B04B5
hymenoptera (bee, ant) B14-B04B6
C14-B04B6
lepidoptera (butterfly, moth) B14-B04B7
C14-B04B7
orthoptera (locust) B14-B04B8
C14-B04B8
siphonaptera (flea) B14-B04B9
C14-B04B9
Insecticide general B14-B04B
C14-B04B
Insecticides
additives for polymers A08-M02
for fabrics F03-C02B
for wood F05-B01
polymer agricultural use A12-W04C
Insects B04-P01C
C04-P01C
Insert incorporation during moulding A11-B

Inspection of
fabrics F03-K02
glass L01-J02
Instant food D03-H01L
Instrumentation
electrical A12-E13
for polymer processing equipment A09-D+
Instruments, musical A12-W08
Insulated non-metal conductors A12-E02+ G02-A05A L03-A02A
Insulated wire L03-A01B3
Insulating (acoustic and thermal)
boards L02-D15B
ceramic oxides L02-G06
flexible sheets L02-D15C
material compositions L02-D15D
panels L02-D15
Insulating (electrical)
cases and bodies A12-E05
ceramic oxides L02-G05
layers for semiconductor devices (including passivating) L04-C12
layers on semiconductors
oxide L04-C12A
nanomaterials L03-A03N
oils H08-D08
oils, for cables L03-A01B4
oils, for capacitors L03-B03D
tape A12-E03
Insulation (acoustic and thermal)
in buildings A12-R06 L02-D15
pipe lagging A12-H02D1
polyurethane foam use in vehicle A12-S02F A12-T04B
Insulation (electrical) A12-E+
tape A12-E03
wiring A12-E02+ G02-A05A
Insulators (electrical) L03-A
Insulin and derivatives B04-B02D2 B04-J03A C04-B02D2 C04-J03A
Intaglio printing plates G05-A03
Integral skin foams A12-S04E
Integrated circuits
lead frames L04-C23
photographically produced G06-D06
polymer use in systems for A12-E07C L04-F03
Integrated injection logic devices - I2L or IIL devices L04-E06
Integrated optical systems L04-F04
Integrin B04-H21 C04-H21
Intensifying screen for X-ray materials G06-A09
Interfacial
(co)polycondensation A10-D01
addition polymerisation A10-B07
Interferon B02-V03 C02-V03
general and other B04-H05 C04-H05
IFN alpha B04-H05A C04-H05A
IFN beta B04-H05B C04-H05B
IFN gamma B04-H05C C04-H05C
IFN delta B04-H05D C04-H05D
IFN kappa B04-H05K C04-H05K
Interferon (substance) activity B12-A06 C12-A06
Interferon inducing B14-G01A C14-G01A
Interhalogen compounds B05-C07 C05-C07
production E31-B02
use E31-B03
Interlacing of fibres F01-H02
Interleukin agonist/mimetic B14-L03 C14-L03
Interleukin antagonist/inhibitor B14-L07 C14-L07
Interleukins
1 B04-H02A C04-H02A
10 B04-H02L C04-H02L
11 B04-H02M C04-H02M
12 B04-H02N C04-H02N
13 B04-H02P C04-H02P
14-20 B04-H02Q C04-H02Q
2 B04-H02B C04-H02B
21-25 B04-H02R C04-H02R
26-30 B04-H02S C04-H02S
3 B04-H02C C04-H02C
31-35 B04-H02T C04-H02T
4 B04-H02D C04-H02D
5 B04-H02F C04-H02F
6 B04-H02G C04-H02G
7 B04-H02H C04-H02H
8 B04-H02J C04-H02J
9 B04-H02K C04-H02K
general and other B04-H02 C04-H02
Interlinings for garments F04-C
Intermediate for unknown monomer A01-F
Intermedin B04-B02D4 B04-J05G C04-B02D4 C04-J05G
Intermingling of fibres F01-H02
Internal lubricants for polymers A08-M03B
Internal mixer for polymers A11-A03A
Internal oxidation of alloys
ferrous M24-D06
non-ferrous M29-D
Interpenetrating polymer network A07-A+
Intestinal disease treatment B14-E10C C14-E10C
Intestine splitting machines D07-A
Intranasal delivery B12-M01D C12-M01D
Introduction of substances into fermentation media D05-A03
Intumescing agents for polymers A08-B+ A08-F+
Invert sugar B10-A07 C10-A07 D06-G E10-A07
Investment castings, patterns A12-H05
Iodated/iodination of polymers A10-E04A
Iodide, vinyl
(co)polymers A04-E05
homopolymer A04-E04
monomer A01-D12
Iodide, vinylidene
(co)polymers A04-E07
homopolymer A04-E06
monomer A01-D12
Iodine (or derivatives) - see also Halogen (or derivatives)
Iodine catalysts N04-D
Iodine deficiency treatment B12-G06 B14-N11 C12-G06 C14-N11
Iodine isotopes B05-A04D C05-A04D
Iodo - see also Halo
Iodohydrogenated/ iodohydrogenation of polymers A10-E04
Iodonium compounds B10-A01 C10-A01
organic E10-A01
Iodostyrenes
(co)polymers A04-C
monomer A01-D02
Iodosulphonated/ iodosulphonation of polymers A10-E12B
Ion beam etching of semiconductors L04-C07A

Ion channel proteins B04-N07
C04-N07
Ion exchange J01-D04
fibres F04-E
non-ferrous metal extraction M25-B03
petroleum processing H02-D01
regeneration of exchanger J01-D04A
resins A12-M+
tests B11-C08D2
C11-C08D2
water purification by D04-A01G
Ion implantation doping of semiconductor layers L04-C02B
Ion or plasma deposition apparatus for semiconductor manufacture L04-D04
Ion plating M13-E
Ionene polymers A05-J09
Ionising radiation
addition (co)polymerisation A10-B06
crosslinking A11-C02B
graft copolymerisation A10-C03C
polymer modification A10-E10
Ionising radiation sensitive materials A12-L+
Ionising radiation stabilisers A08-A02
Ionomers A10-E21B
IPN A07-A+
Iridium catalysts N02-E
N02-E04
for polymerisation A02-A06
Iridium compounds B05-A03B
C05-A03B
inorganic E35-X
organic E05-N
E05-N02B
Iron
based powder cores, powders L03-B02A1
electrodeposition M11-A06A
melt treatment M24-C
powder preparation for magnetic purposes L03-B02A1
processing M24-B01
production M24-A
Iron catalysts N02-A
element N02-A01
oxide N02-A01
Iron chloride polymerisation catalyst
Friedel Crafts A02-A04
other A02-A06B
Iron compounds B05-A03A2
C05-A03A2
inorganic E35-U
organic E05-L02
E05-L02A
pigments or fillers G01-A05
Iron oxide pigments A08-E02
G01-A05
Ironing textiles F03-J02
Irradiation
addition (co)polymerisation A10-B06
crosslinking A11-C02B
graft copolymerisation A10-C03C
medical K08-H01
polymer modification A10-E10
polymer surface treatment A11-C04E
processes B11-C01
C11-C01
D09-A02A
D09-B07
E11-P
Irradiation in water treatment D04-A01P2A
Irradiation of food D03-H02C
K08-H02
Irritable bowel treatment B14-E10C
C14-E10C
Ischemia treatment
cerebral B14-F02D1
C14-F02D1
coronary B12-F02
B14-F01E
C12-F02
C14-F01E
general B14-F02D
C14-F02D
muscle B12-F07
C12-F07
pulmonary B12-K02
B14-F02D2
C12-K02
C14-F02D2
Island-in-sea fibres A12-S05B
F01-E01+
Islets of Langerhans treatment B14-N13
C14-N13
Isobenzofuran B06-A02
C06-A02
E06-A02
Isobutene E10-J02C
(co)polymers A04-G05+
monomer A01-D13
Isobutene-isoprene copolymer (butyl rubber) A04-G05A
Isobutyl acrylate
(co)polymers A04-F06+
monomer A01-D10B
Isobutyl alpha-chloroacrylate
(co)polymers A04-E
monomer A01-D10
Isobutyl cyanoacrylate
(co)polymers A04-D
monomer A01-D04
A01-D10
Isobutyl methacrylate
(co)polymers A04-F06+
monomer A01-D10B
Isobutyl vinyl ethers
(co)polymers A04-F11
monomer A01-D11
Isobutylene E10-J02C
(co)polymers A04-G05+
monomer A01-D13
Isocitric acid E10-C02A
Isocyanate
based resin adhesives A12-A05F
G03-B02E4
condensants A01-E02
crosslinking agents for ethylenically unsaturated polymers A08-C09A
crosslinking agents for others A08-D04A
inorganic B05-C03
C05-C03
E32-B
organic B10-A14
C10-A14
E10-A14
E10-A14A
E10-A14B
vinyl (co)polymer A04-D
vinyl, monomer A01-D07
Isocyanide (inorganic) B05-C03
C05-C03
E32-B
Isocyanide (organic) B10-A15
C10-A15
E10-A15A
Isocyanuric acid, glycidyl derivatives of A05-A04
Isoindole B06-D03
C06-D03
E06-D03
Isomerase B04-B02C6
B04-L07
C04-B02C6
C04-L07
agonists B14-L01A5
C14-L01A5
enzyme processes D05-A01B5
D05-A02E
inhibitors B12-G01B5
B14-D09
C12-G01B5
C14-D09
production by fermentation D05-C03F
Isomerisation process B11-C01
C11-C01
E11-J01
gasoline production H04-D03
Isomers of natural rubber A03-B
Isophorone diamine condensant A01-E05
Isophorone diisocyanate condensant A01-E02
Isophthalic acid B10-C02
C10-C02
E10-C02C
E10-C02C1
E10-C02C2
condensant A01-E11
saturated polyesters based on A05-E03
Isoprene E10-J02C
butyl rubber A04-G05A
copolymers (excluding butyl rubber) with isobutylene A04-B07
homopolymer A04-B06
monomer A01-C05
Isopropenyl methyl ketone
(co)polymers A04-F03
monomer A01-D05

Isopropenylnitrile
(co)polymers A04-D03+
homopolymer A04-D02+
monomer A01-D04

Isopropyl acrylate
(co)polymers A04-F06+
monomer A01-D10B

Isopropyl alpha- chloroacrylate
(co)polymers A04-E
monomer A01-D10

Isopropyl cyanoacrylate
(co)polymers A04-D
monomer A01-D04
A01-D10

Isopropyl methacrylate
(co)polymers A04-F06+
monomer A01-D10B

Isopropylidene acetone
(co)polymers A04-F03
monomer A01-D05

Isopropylidene bisphenols
condensants A01-E13

Isoquinoline B06-D03
C06-D03
E06-D03

Isothiazole B07-F01
C07-F01
E07-F01

Isothiocyanate (organic) B10-A14
C10-A14
E10-A14
E10-A14A
E10-A14B

Isothiocyanate condensants A01-E02

Isothiourea B10-A13A
C10-A13A
E10-A13A
E10-A13A1
E10-A13A2

Isotope containing compounds
B05-A04+
C05-A04+
inorganic E31
organic E05-R

Isotope separation J01-J

Isotopes of non-metal
(free element) B05-A04+
C05-A04+
E31

Isotopic labelling K09-E

Isourea B10-A13B
C10-A13B
E10-A13B
E10-A13B1
E10-A13B2

Isoxazole B07-E01
C07-E01
E07-E01

Itaconic acid
addition (co)polymers A04-F05
monomer/condensant A01-D08
A01-E12

Itaconic acid ester
addition (co)polymers A04-F07
monomer A01-D10
A01-E12

Ivermectin B02-A
C02-A

Izod impact strength of
polymers A09-A05A

J

Jackets F04-C03

Jam D03-H01V

Jacquard weaving F02-A02

Jars, polymer use A12-P06A

Jasmolin B04-A07C
C04-A07C

Javanicin B02-J
C02-J

Jelly B12-M03
C12-M03

Jersey fabrics A12-S05H
F02-B02

Jet crimping F01-H04C2

Jet engines A12-T03+

Jet fuel A12-T03+
H06-B03

Jet ink G05-F03

Jet inks A12-W07+
G02-A04

Jet looms F02-A04B

Jewellery A12-F

Joining L03-A01B2
cables
fabric lengths F03-K
glass by sealant L01-H07
glass by fusion (excluding
vitreous enamelling) L01-H04
glass by soldering L01-H03
glass by welding L01-H03
glass using
interlayer L01-H05
glass using
other methods L01-H09
optical glass fibres L01-F03H
Joint disorders B14-S14
C14-S14

Jointing compositions G04-B02

Josephson junction elements L04-E09

Jumpers of fabric F04-C03

Junction field effect transistors
(JFET) L04-E01A1

Juvenile hormone B04-J17
C04-J17

Juvenile hormone activity B12-G04
B14-D01E
C12-G04
C14-D01E

K

Kallikrein B04-B02C3 B04-L05C C04-B02C3 C04-L05C
Kanamycin B02-K C02-K
Kaolin E31-P G01-A10
  filler A08-R06B
Kapton ® A05-J01+
Keratin A03-C01 B04-B04A6 B04-N02 C04-B04A6 C04-N02
Kerosene H06-B02
Ketal (non-heterocyclic) B10-A23 C10-A23 E10-A23 E10-A23A E10-A23B
Ketalised polymers A10-E02
Ketals, polyvinyl A10-E02
Ketenes E10-F02
Ketomethylene, photographic couplers G06-H08C
Ketone B10-F02 C10-F02 E10-F02
  condensants A01-E10
  monomers (mono-unsaturated, aliphatic) A01-D05
  polymers A04-F03
  thio B10-F01 C10-F01 E10-F01
Ketone condensation polymers
  with amides/amines A05-B
  with other condensants A05-J08
  with phenols A05-C
Kevlar ® A05-F05
Kickers for blowing agents A08-B
Kidney extracts B04-B04H C04-B04H
Kidney machines (polymer use) A12-V02 A12-V03B
Kidney treatment B12-G03 B14-N10 C12-G03 C14-N10
Killing ferrous melt M24-C03
Killing insects (in a room) D09-B06
Kilns
  rotary for calcining raw ceramic materials L02-A02
  rotary for clinkering cements L02-C02
  tunnel for sintering ceramics L02-A04
Kinases B04-L04C C04-L04C
Kitchenware A12-D03
Kneading of polymers A11-A03+
Knees, artificial A12-V02 D09-C01D
Knit-deknit crimping of fibres F01-H04C F02-B03
Knitted fabrics A12-S05H F02-B02
Knitting
  machine accessories F02-B04
  machines F02-B03
  methods A11-C05A F02-B03
  warp F02-B03A
  weft F02-B03B
Knives (tableware) A12-D03
Knop yarn F01-E
Knotted carpets F02-E03
Knotting F02-E03
Knotting of fibres to join ends F01-H03B
Kodachrome ® type colour materials G06-C02
Krypton (element) B05-B02C C05-B02C E31-J
Krypton compounds
  inorganic B05-B02C C05-B02C E31-J
  organic B05-B02C C05-B02C E05-K
Kurchatovium compounds B05-A04 C05-A04
  inorganic E35-R
  organic E05-Q
Kuru disease treatment B14-N16C C14-N16C

L

L.O.I of polymers A09-A01
Lab-on-chip J04-B02 L04-E01H
Labelling of textiles F04-F04
Labelling system for foodstuff D03-K11
Labelling with isotope K09-E
Labels A12-P A12-W03
Laboratory
  (meth)acrylamide (co)polymer A04-D04A1
  apparatus and methods J04-B
  applications of glass L01-L03
  control, sampling and testing J04-C
  equipment A12-L04+
  use in PVA, use in A10-E09B2
Labour inducing B12-E09 B12-G04 B14-P01B C12-E09 C12-G04 C14-P01B
Lace casting process of polymers A11-B04C
Lace production F02-E01
Laces, shoe A12-C04
Lacquer, based on A12-B01E A12-B01E
  acrylics G02-A02C+
  acrylics containing acrylic acids G02-A02C4
  acrylics containing acrylic amides G02-A02C4
  acrylics containing acrylic nitriles G02-A02C4
  acrylics containing aminoalkyl acryl G02-A02C3
  acrylics containing diacrylates G02-A02C4
  acrylics containing epoxy G02-A02C1
  acrylics containing hydroxyalkyl acrylates G02-A02C2
  acrylics containing polyacrylates G02-A02C4
  alkyd resins A12-B01H G02-A02E
  aminoplasts A12-B01J G02-A02F
  epoxy resins A12-B01L G02-A02G
  general addition polymers A12-B01W
  general condensation polymers A12-B01X
  inorganic film formers A12-B01C G02-A01+
  natural polymers A12-B01D G02-A02A
  organic film formers G02-A02+
  other addition polymers A12-B01C G02-A02D+
  other addition polymers, unsaturated aromatic (styrenic) polymers G02-A02D4

other addition polymers, vinyl ester or unsaturated acid polymer excluding acrylic G02-A02D3
other addition polymers, vinyl halide polymer G02-A02D2
other additional polymers, diene or polyene polymers G02-A02D1
phenoplasts A12-B01J
G02-A02F
polyesters A12-B01H
G02-A02E
polymers (general) A12-B01+
polyurethane A12-B01K
G02-A02H
silicone A12-B01C
G02-A01A
synthetic polymers (general) G02-A02B

Lacquers A12-B+
G02-A+
additives for G02-A03+
chemical removers for G02-A03C
general addition polymer A12-B01W
general condensation polymer A12-B01X
organic pigment used in G02-A03A
polymeric A12-B01+
polymeric, solvent based A12-B01B
polymeric, water based A12-B01A

Lactam
condensants A01-E04
derived polyamides A05-F03
dye precursor E26-B

Lactides condensants A01-E11
A01-E12
A01-E14

Lactones
condensants/monomers, (cyclo)aliphatic A01-E12
A01-E14
condensants/monomers, aromatic A01-E11
A01-E14
dye precursor E26-B
saturated polyesters derived from A05-E02

Lactose D06-G
E07-A02
in compositions B04-D01
C04-D01
production B07-A02
C07-A02

Ladles, casting M22-G03G

Lagging for pipe, tube, hose A12-H02D1

Lamb D02-A03B

Laminated
film A12-S06C+
for packaging A12-P01A
glass L01-H02
sheet A12-S07A

Laminates E12-A11
decorative A12-A04A
fabric/fibre reinforced A12-S08A
F03-D
film A12-S06C+
phenol-formaldehyde resin in A05-C03A
phenolic resin in A05-C01B1
reinforced plastics A12-S08A
sheet A12-S07A
unsaturated polyester in A05-D02E1
unspecified A12-A04D

Laminating A11-B05+
A11-B09+
F03-D+
adhesive, of fabrics F03-D01
board (chip-, fibre-, card-) production A11-B09B
decorative laminates production A11-B09B
fibre reinforced plastics production using moulds/extrusions A11-B09C
filament winding A11-B09C
flame of fabrics F03-D02
non-fibrous bodies (film, sheet etc.) A11-B09D
process for fabrics F03-D+
to form specific goods A11-B09A+

Lamps A12-E11
discharge, luminescent envelope for L03-C04B
discharge, structural parts for L03-C03
incandescent L03-C05
shades for A12-L03

Landfills
waste storage J10-A

Lanolin B04-B01B
C04-B01B

Lanthanide (-um) compounds B05-A03B
C05-A03B
containing glass L01-A02A
inorganic (general) E34-E02
inorganic (other than cerium) E34-E02B
organic E05-P

Lanthanide (-um), production M25-G21

Lanthanide catalysts
general N03-A02
lanthanoids (other than cerium) N03-A02B

Lanthanum catalysts N03-A01

Lasers
annealing in semiconductor production L04-C16B
beams for electric welding and cutting M23-D05
compositions L03-F02A
Oxide compositions L02-G10B
dye lasers L03-F02A3
construction and design L03-F02B
fluorescent and luminescent materials for semiconductor manufacture L03-G09G
polymerisation initiated by A10-B06
A10-C03C
A10-D+
recording devices A12-L03C
G06-D07
semiconductor type L04-E03B

Latensification G06-G04

Latent image transfer process, electrophotographic G06-G08D

Latex (latexes, latices) A07-B+
paints A12-B01A
G02-A+
rubber A07-B01

Laundering F03-J+
compositions D11
F03-J03
Laundry detergent compositions D11-D01H

Laurolactam condensant A01-E04

Lauroyl peroxide
catalyst for polymerisation A02-A01
crosslinker for addition (co)polymers A08-C05
crosslinker for other polymers A08-D
redox catalyst for polymerisation A02-A03

Lauryl acrylate
(co)polymers A04-F06+
monomer A01-D10B

Lauryl methacrylate
(co)polymers A04-F06+
monomer A01-D10B

Lavatory
cleaners D11-D01D
ware A12-R02

Lavsan ® A05-E04+

Lawrencium compounds B05-A04
C05-A04
inorganic E35-R
organic E05-Q

Laxatives B12-J07
B14-E09
C12-J07
C14-E09

Lay-flat film A12-S06+

Lay-up of fibre reinforced plastics A11-B09+
to form specific goods A11-B09A+

Laying of textile webs F03-K01

LCD, polymer use A12-L03B
sealant materials(resins) L03-G05B5A

LDPE A04-G02+

Leaching (non-ferrous metal extraction) M25-B

Lead alloys M26-B04

Lead catalysts N03-G04

Lead compounds B05-A02
C05-A02
inorganic E35-J
organic E05-F02
E05-F02C
pigment/filler G01-A04

Lead for pencils A12-D05B
G02-A04

Lead frame attachment to semiconductor and other devices L04-C24

Lead frame manufacture for semiconductor devices and integrated circuits L04-C23
Lead oxide, glass composition L01-A03C1
Lead production M25-G14
Lead recovery from battery electrodes L03-E01B1
Lead removal from waste water D04-B05
D04-B05A
Leads and terminals preparation L03-A01B5
Leasing F02-A01
Leather
artificial, general A12-B02A
F04-B01+
chemical treatment D07-B
coatings on A12-B02A
coatings on natural A12-B06
mechanical treatment D07-A
waste B04-B04E
C04-B04E
with polyurethanes F04-B01A
with polyvinyl chloride F04-B01B
Leathercloth A12-B02A
F04-B01
Leaves (of plants) B04-A07D5
B04-A09A
C04-A07D5
C04-A09A
extracts B04-A10B
C04-A10B
Lecithin B04-B01B
B05-B01P
C04-B01B
C05-B01P
LED, polymer use A12-E11A
Fluorescent and luminescent materials for semiconductor manufacture
L03-G09G
Light emitting diodes L04-E03A
Legs, artificial A12-V02
D09-C01D
Length metering, in winding of fibres F01-H03B
Lenses A12-L02A
coating L01-G04D
contact A12-V02A
D09-C01A
spectacle A12-L02A
A12-V02A
Leprosy treatment B12-A03
B14-A01B1
C12-A03
C14-A01B1
Letterpress printing plates G05-A02
Leuco base (general) E26
Leuco dyes (dye precursor) E26
for dyeing/printing fibres F03-F23
for heat sensitive systems G06-F08A
Leukaemia treatment B12-G05
B14-H01A
C12-G05
C14-H01A
Leukocytes B04-B04D1
B04-F04
C04-B04D1
C04-F04
Leukosis treatment B12-G05
B14-H01A
C12-G05
C14-H01A
Leukotrienes B04-H03F
C04-H03F
agonist/mimetic B14-L04
C14-L04
antagonist/inhibitor B14-L08
C14-L08
Levelling agents for electroplating M11-B01
Levomycetin (chloramphenicol) B02-C01
C02-C01
Lewis acid polymerisation catalyst A02-A04
Lewis acid, metal halide catalyst N04-D01
Lexan ® A05-E06+
Lichen controlling B12-P07
C12-P07
Lids for containers A12-P03
Ligase B04-B02C7
B04-L08
C04-B02C7
C04-L08
agonists B14-L01A6
C14-L01A6
inhibitor B12-G01B6
B14-D10
C12-G01B6
C14-D10
Ligase enzyme process D05-A01B6
D05-A02F
Light concrete L02-D03
Light emitting:
diodes L04-E03A
diode lamps L03-C06
fluorescent and luminescent materials L03-G09G
luminescent and fluorescent compositions L02-G10A
semiconductor devices L04-E03
Light irradiated/irradiation of polymer for
chemical modifaction A10-E10
crosslinking A11-C02B
Light receiving and detecting devices (semiconductor)
general L04-E05
Light stabilisers
fabrics F03-C07
polymers A08-A03
Light, photographic exposure to G06-G18
Light, polymerisation initiated by A10-B06
A10-C03C
A10-D+
Light-induced adhesive photographic systems developed with toner G06-C
Light-sensitive
dyes for radiation sensitive systems G06-F05
microencapsulated compositions G06-C16
photographic materials A12-L+
polymer compositions for radiation sensitive systems G06-F03+
Lighters, chemical K04-B02
Lighting, electrical A12-E11
L03-H04A
Lightning arresters L03-B04E
Lignin A03-C02
B04-C03D
C04-C03D
Lignite A03-C03
Lignosulphonate A10-E12A
B04-C03D
C04-C03D
Limbs, artificial A12-V02
D09-C01D
Lime (calcium oxide, hydroxide) E34-D01
by-product L02-B04
production L02-B01
Limestone (calcium carbonate) E34-D03
production L02-B01
Limiting oxygen index of polymers A09-A01
Lincomycin B02-L
C02-L
Linear low density polyethylene (LLDPE) A04-G06+
Linear polyethylene (HDPE) A04-G02+
Linen, fabric use
bed F04-D01
table F04-D02
Liners (well equipment) H01-C07
Lining of pipes, processes A11-B09A+
Linings for
casting ladles M22-G03G2
casting moulds M22-A04
drums (packaging) A12-P05
furnaces M22-G03G2
garments F04-C
hoses A12-H02D+
ingot moulds M22-G02B
iron and steel apparatus M24-A05A
oil wells A12-W10C
pipes A12-H02D+
tanks A12-P05
tubes A12-H02D+
Linoleum F04-B02
Lip gloss D08-B01
D08-B01B
Lip liner D08-B01
D08-B01B

Lipid B04-B01B C04-B01B
Liposome B12-M11F C12-M11F
Liposome site-specific release B12-M10E1 C12-M10E1
Lipoxygenase B04-L03E C04-L03E
Lipstick A12-V04C D08-B01 D08-B01B
Liquefaction of natural gas H01-F02
Liquefied gas vessels J06-B01
Liquefied natural gas H06-A02
Liquefied petroleum gases H06-A01
Liquefying gases J07-D01
  for separation J07-D02
Liquid chromatography-mass spectrometry J04-B01C6
Liquid crystals A12-L03B E12-B07 G04-B L03-G05B1
  additives L03-G05B4
  display devices A12-L03B L03-G05A
  display devices, components for L03-G05B
  display devices, (electro)photographic production of G06-D06B
  mixtures L03-G05B2
  properties A09-A02A
Liquid detergent compositions D11-D07
  dishwashing detergents D11-D07D
  laundry detergents with bleach (stain removers) D11-D07C3
  laundry detergents with special use D11-D07C
  Light duty liquid laundry detergents D11-D07B
  liquid soap type (hand washing compositions) D11-D07F
Liquid etching of metal, compositions M14-A03
Liquid fabric softeners D11-B15B F03-C05
Liquid food, testing and monitoring D03-K03
Liquid freezing J07-B
Liquid metal coolants (for nuclear reactor) K05-B03A
Liquid metal cooled reactor processes K05-A02C
Liquid particle separation J01-F
Liquid personal face and body wash D08-B09A2A
Liquid petroleum fuel H06-B
Liquid phase chromatography J01-D01A
  deposition apparatus for semiconductor processing L04-D03
  epitaxial growth of semiconductor layers L04-C01C
  etching of semiconductors L04-C07C
Liquid skin care formulations D08-B09A1A
Liquid soap D11-C01C
Liquid toning, electrophotographic G06-G06
Liquid-gas mass transfer J01-A02
Liquids, application to surfaces J02-C
Liquids, treatment with adsorbents J01-D01
Liquids, Biological treatment J01-D07
Liquids, materials for filtering J01-H02A
Liquids, vessels for storing J06-B
Lithium catalysts N01-A
Lithium compounds B05-A01B C05-A01B
  inorganic E35-G
  organic E05-A E05-A01
Lithium halide polymerisation catalyst A02-A07+
Lithographic films or papers G06-D02
Lithographic printing plates G05-A01
  produced photographically A12-W07B G05-A01 G06-D05+
Liver extract B04-B04H C04-B04H
Liver fluke treatment B12-B06 B14-B03 C12-B06 C14-B03
Liver treatment B12-G02 B14-N12 C12-G02 C14-N12
Liverworts B04-A08A C04-A08A
LLDPE (linear low density polyethylene) A04-G06+
Lobed fibres A12-S05A F01-E02
Looking glasses A12-L03
Looms
  conventional F02-A04A
  jet, rapier F02-A04B
  shedding mechanisms F02-A02
  shuttleless F02-A04B
  weaving methods F02-A04+
Lorries A12-T+
Lost patterns M22-C01
Lost wax process M22-G03N
Lotions
  cosmetic A12-V04+ D08-B
  pharmaceutical A12-V01 B12-M02B C12-M02B
Loudspeakers A12-E12 L03-H02
Low alkali glass L01-A01C
Low calorie
  beer D05-B02
  food D03-H01T3
  Low carbohydrate food D03-H01T3B
Low density polyethylene A04-G02+
Low fat food D03-H01T3A
Low pressure polyethylene A04-G02+
Low silica glass L01-A04
Low temperative detergents D11-D01F
Lozenges A12-V01 B12-M11 C12-M11
Lubricants
  additives H07-G
  ceramic oxide L02-G08
  coatings (oil free) for metal M13-H
  containing oxygen H07-A02
  extremely high viscosity oils H07-B01
  for electrical components H08-E04
  for fibres A12-S05S F01-H06+
  for metal working M21-B03 H08-D07
  for polymers A08-M03+
  for refrigerators J07-A09 H08-D11
  for rolling M21-A06 H08-D07
  gaseous H07-E
  layers in magnetic recording L03-B05K3
  mineral oil based H07-B
  of vegetable origin H07-A01
  photographic G06-H17
  polymeric A12-W02
  production H07-L
  refrigeration H08-D11
  semi-solid and solid H07-D
  synthetic H07-A
  treatment of fabrics A12-S05S F03-C05
Lubrication systems H07-F
Luggage A12-T
Luminescent
  ceramic oxides L02-G10A
  compositions for discharge lamp or tube surfaces L03-C02C
  compounds containing metals E24-A06A
  cosmetic pastes D08-B01
  dyes containing metals E24-A06A
  dyes (gen.) E24-A06
  heterocyclic dyes E24-A06B
  envelopes and screens L03-C04
  materials G04-A
  materials for semiconductor manufacture L03-G09G
  others dyes E24-A06C
Lung disease treatment B12-K06 B14-K01 C12-K06 C14-K01

Lures B12-N03 B14-B14 C12-N03 C14-B14

Luteinising hormone- releasing hormone B04-J07 C04-J07

Lutenising hormones B04-B02D4 B04-J05H C04-B02D4 C04-J05H

Lutetium compounds B05-A03B C05-A03B
- catalysts N03-A02B
- inorganic E34-E02B
- organic E05-P

Lyase B04-B02C5 B04-L06 C04-B02C5 C04-L06
- agonists B14-L01A4 C14-L01A4
- inhibitor B12-G01B4 B14-D08 C12-G01B4 C14-D08
- processes D05-A01B4 D05-A02D
- production by fermentation D05-C03E

Lycra ® fibres A05-G+ A12-S05+
- chemical features of dyeing/printing F01-D07 F03-F10

Lymphatic disease treatment B14-F02E C14-F02E

Lymphocytes B04-B04D1 B04-F04 C04-B04D1 C04-F04

Lymphotoxin (LT) B04-H13 C04-H13

Lyophilised form B12-M11P C12-M11P

Lyotropic property of optically anisotropic polymer solutions A09-A02A

Lysergic acid (or derivative) B04-A03 C04-A03

M

Macaroni D01-B02E

Machines for
- food D03-J D03-K
- processing polymers A11-A+ A11-B+ A11-C+
- producing pharmaceutical, veterinary or agricultural compositions B11-C05 C11-C05
- use on (or in) an animal body B11-C04 C11-C04

Machining
- electrolytic M23-D06
- polymers A11-A05+
- spark or electro-erosion M23-D06

Macrame F02-E03

Macrocyclic dyes, pigments E23

Mad cow disease treatment B14-N16A C14-N16A

Magnesia E34-B
- by products L02-B04
- production L02-B02

Magnesium
- alloys M26-B10
- catalysts N01-B
- cement L02-C04

Magnesium carbonate board L02-D07

Magnesium compounds B05-A01B C05-A01B
- inorganic E34-B
- organic E05-B01
- pigments/fillers G01-A01

Magnesium production M25-G16

Magnetic
- alloy L03-B02A
- barium ferrite base compositions L03-B02B1
- bubbles, dots, cores L03-B06
- ceramic oxides L02-G07A
- colloids L03-B02B5A
- devices, polymer use A12-E08+
- ferrofluids L03-B02B5A
- garnets L03-B02B3
- heads L03-B05M
- heads, non-metallic gap fillers, insulation L03-B05N
- inorganic composite L03-B02B6A
- liquid compositions L03-B02B5
- metal L03-B02A
- material, coating compositions for G02-A05B
- non-metals L03-B02B
- organic compounds L03-B02B4
- other ferrites L03-B02B2
- other non-metallic compositions L03-B02B6
- pigments L03-B05D1
- pigments, treatment of L03-B05D2
- plastic L03-B02B4
- plates, discs L03-B05B
- polymer L03-B02B4
- polymer composite particles L03-B02B4A
- polymer additive A08-M09A
- properties of polymers A09-A04
- separation of solids J01-K02
- tapes A12-E08A1 L03-B05A

Magnetic alloys L03-B02A
- containing rare earth metals L03-B02A5
- not based on iron, cobalt, nickel or rare earth metals L03-B02A6

Magnetic layers L03-B05J
- binders L03-B05D4
- metal plating L03-B05E
- non-metallic additives L03-B05D3

Magnetic liquids L03-B02B5
- ferrofluids L03-B02B5A
- magnetic colloids L03-B02B5A
- magnetorheological L03-B02B5B
- magnetoviscous L03-B02B5B

Magnetic materials L03-B02
- application - other L03-B02X
- for automotive application L03-B02J
- for coils L03-B02F
- for engineering application L03-B02J
- for inductances L03-B02C
- for inks L03-B02H
- for lacquers L03-B02H
- for medical application L03-B02G
- for motors L03-B02E
- for paints L03-B02H
- for pharmaceutical application L03-B02G
- for transformers L03-B02D

Magnetic polymers and plastics L03-B02B4
- composite particles L03-B02B4A

Magnetic recording
- coatings on supports forming the support on otherwise unsuitable material L03-B05L3
- discs A12-E08A2
- dispersions used in L03-B05D
- layers G02-A05B1 L03-B05D
- layers, backing L03-B05K2
- layers, lubricant L03-B05K3
- layers, magneto-optical, thermomagnetic L03-B05F
- layers, protective L03-B05K1
- media L03-B05C
- memory L03-B02M
- polymer use A12-E08A+
- security documents use L03-B05H
- supports for L03-B05L
- supports for, metal L03-B05L2
- supports for, polymeric L03-B05L1
- tapes A12-E08A1 G02-A05B1 L03-B05A
- vertical L03-B05G

Magneto-optical layers in magnetic recording L03-B05F

Magneto-optical recording
- devices G06-D07
- layers G02-A05B1

Magnetography G05-F
Magnetophoretic display L03-G05H
Magnetorheological fluid H08-D12
Magnetos A12-E08B
Magnetostrictive materials L03-G09I
Magnets A12-E08
L03-B
Make up (cosmetics) A12-V04+
D08-B01
D08-B01C
Eye make up D08-B01A
Make up removing D08-B01E
Male sexual dysfunction B14-P04A
C14-P04A
Maleate, diallyl
(co)polymers A04-A03
monomer A01-B03
Maleic acid esters (monoolefinic)
(co)polymers A04-F07
monomer A01-D10
A01-E12
Maleic acid/anhydride
(co)polymers A04-F05
monomer A01-D08
A01-E12
Maleic anhydride E07-A01
Maleic esterified polymer A10-E07A
Maleimides
(co)polymers A04-D09
monomer A01-D01
Maleinised rosin A10-E23
Malnutrition treatment B14-E11C
C14-E11C
Malt B04-A07F
B04-A09F
C04-A07F
C04-A09F
Malting grain D05-B01A
Maltose D06-G
E07-A02
in compositions B04-D01
C04-D01
production B07-A02
C07-A02
Mammary gland B14-N18
B14-N18
Mammalian extracts (general) B04-B04L
C04-B04L
Mammotrophin B04-B02D4
B04-J05
C04-B02D4
C04-J05
Manganese alloys M26-B
Manganese catalysts
for polymerisation N03-E
A02-A06+
Manganese compounds B05-A03A1
C05-A03A1
inorganic E35-S
organic E05-L03
E05-L03A
Manganese production M25-G17
Manifolds for forming fibres F01-C01
Manufacture, tyre equipment A12-T01A
Manufacturing processes,
for polymer articles A11-B+
A11-C+
Marble, artificical A12-R01
Margarine D03-C
margarine D03-C02
Mariculture A12-W04+
Marine drilling equipment H01-B01
drill ships H01-B01C
Fixed multi-well platforms H01-B01A
mobile jack-up platforms H01-B01B
semi-submersible platforms H01-B01D
Marine production equipment,
for oil and gas H01-D05
Marine production platforms
Decomissioning H01-B01E
Marine storage and transport,
for oil and gas H03-D
Marker buoys A12-T
Marker gene B04-E12
C04-E12
Marketing textiles F03-K
Marking defective
semiconductor devices L04-C19
Marking inks A12-D05B
G02-A04+
Markings, road A12-R
G02-A05F
Marmalade D03-H01V
Masers L03-F01
Mask design and manufacture
in semiconductor processing L04-C06A
Masking materials in
semiconductor processing L04-C05
Masking methods
(photographic) G06-E02
Masking techniques (for
semiconductors) L04-C06
Masonry, coating
compositions for G02-A05F
Mass colouring of polymer A11-A01+
Mass spectroscopy testing B11-C08A
C11-C08A
J04-B01A1
GC-MS J04-B01C5A
Mass transfer (liquid-gas) J01-A02
Masterbatching with polymers
of additives A11-A03+
of pigments A11-A01+
Masticating of polymers A11-A03+
Mastics A12-R08
G04-B02
Mastitis treatment B14-N18
C14-N18
Matches A12-T03A
K04-D
Material handling (polymers) A11-C06
Mats, sport A12-F01A
Matting agents (photographic) G06-H16
Matting agents for polymers
inorganic A08-E02
organic A08-E03C
Mattresses A12-D01
Mayonnaise D03-H01H
MDI condensants A01-E02
Measuring purity of water D04-A01H
Measuring, electrical A12-E13
Measuring, non-electrical A12-L04B
Meat paste D02-A03B
Meat preservation D03-A01
Meat processing D02-A
Meat products D02-A03
Meat substitutes D02-A03E
Mechanical
etching of metal M14-A01
finishing of fibres and yarns F01-H
properties of polymers A09-A05+
purification of paper pulps F05-A03
relaxation or stabilisation of fabrics F03-A02
testing of properties J04-C02D
tools A12-H
Mechanical engineering A12-H+
Mechanical engineering, use of
polyamides A05-F01E2
polyethylene A04-G02E4
polyurethanes A05-G01E2
PTFE A04-E08B
PVC A04-E02E1
reinforced polymers A12-S08D1
silicon polymers A06-A00E2
Mechanical treatment of
fabrics A12-S05U
F03-A+
fibres F01-H
fibrous raw material in papermaking F05-A01
natural fibrous material F01-A+
natural fibrous material, animal fibres F01-A01
natural fibrous material, mineral fibres F01-A03
natural fibrous material, vegetable fibres F01-A02
Mechanisms, loom shedding F02-A02
Medical equipment A12-V03+
Medical products (textiles) F04-E04
Medical use of (meth)acrylate
(co)polymers A04-F06E5
B04-C03B
C04-C03B
cellulose ethers A03-A04A1
B04-C02A2
C04-C02A2
polyamides A05-F01E3
B04-C03D
C04-C03D
polyethylene A04-G02E3
B04-C03B
C04-C03B
polypropylene A04-G03E1
B04-C03B
C04-C03B

PVA A10-E09B2 B04-C03B C04-C03B
silicone polymers A06-A00E3 B04-C03 C04-C03
Medical, surgical, polymer use A12-V+
Medicine
nuclear applications to K09-B
Medicines, polymer use in A12-V01
Medullary reflex active B12-E01 C12-E01
Megakaryocyte potentiator B04-H12 C04-H12
MEK condensants A01-E10
MEK peroxide
catalyst for polymerisation A02-A01
crosslinking agent for addition (co)polymers A08-C05
crosslinking agent for other polymers A08-D
redox polymerisation catalyst A02-A03
Melamine E07-D13
condensant A01-E01
formaldehyde resin A05-B02
Melanin B04-B04E C04-B04E
Melanin concentrating hormone B04-J19 C04-J19
Agonists B14-D01E2 C14-D01E2
Antagonists B14-D02E2 C14-D02E2
Melanin concentrating hormone receptor B04-K01Y1 C04-K01Y1
Melanocortin agonists B14-D01E1 C14-D01E1
Melanocortin antagonists B14-D02E1 C14-D02E1
Melanocyte stimulating hormone B04-B02D4 B04-J05G C04-B02D4 C04-J05G
Melanophoric hormone B04-B02D4 B04-J05G C04-B02D4 C04-J05G
Melt
adhesives A12-A+
blowing A11-C05A1 F01-C07A
coating onto substrates A11-B05E
iron and steel treatment M24-C
proofing of fabrics F03-C03+
spinning A11-B15B F01-C08B
spinning, high speed A11-B15B1 F01-C08B1
Melting refractory or ceramic L02-A05
Melts of polymers A12-S
Membranes A12-W11A
battery use A12-E06B
electrolysis cell separators A12-E09 J03-B03
ion transport J01-E02C1
reverse osmosis use A12-W11A D04-A01D
semipermeable A12-W11A J01-C03
semipermeable, for gas separation J01-E03E
semipermeable, for waste gas treatment J01-E02C
separation use in petroleum processing H02-D04
Memory elements L03-G04
optical L03-G04B
semiconductor L03-G04A
Memory enhancer B14-J01A4 C14-J01A4
MEMS L03-G10M
Mendeleevium compounds B05-A04 C05-A04
inorganic E35-R
organic E05-Q
Meningitis treatment B14-N16 C14-N16
Mercaptan - see also Thioalcohol or Thiophenol
Mercaptan chain transfer agents A02-B
Mercaptan condensants A01-E
Mercaptobenzothiazole accelerator for crosslinking agents
for addition (co)polymers A08-C03
for other polymers A08-D04
Mercerising of fabrics A11-C05C F03-B
Mercuric sulphide L04-A03A
Mercury alloys (e.g. amalgam) M26-B02
Mercury catalysts N03-F02
Mercury compounds B05-A03A5 C05-A03A5
inorganic E35-E
organic E05-N E05-N03C
pigments/fillers G01-A09
Mercury production M25-G15
Mercury selenide L03-A03B
Merocyanine dyes E25-B E25-E
Merocyanine/ neutrocyanine spectral sensitisers G06-H07B
Mesa isolation in semiconductor manufacture L04-C12C
Mesogenic/ mesomorphic (liquid crystal property of polymer) A09-A02A
Metabolic disease treatment B14-S13 C14-S13
Metaformaldehyde condensant A01-E09
Metal atom incorporation in polymer A10-E20 A10-E21+ A10-E22+
Metal casting M22-G
casting ingots for rolling, forging M22-G02
casting pigs for remelting M22-G01
centrifugal casting M22-G03B
chill casting M22-G03C
continuous casting M22-G03A
die casting M22-G03D
Directional solidification M22-G03L
For aero engines M22-G03K1A
For IC engines M22-G03K2
For turbines M22-G03K1
Investment casting M22-G03N
Rapid Solidification Processes M22-G03M
vacuum casting M22-G03E
Metal coated with ceramic L02-J01E
Metal coated with polymer A12-B04+
Metal coatings on glass sheet L01-G04C
Metal complex dyes for dyeing/printing fibres F03-F25
Metal containing compound crosslinker for addition (co)polymers A08-C09
for other (co)polymers A08-D05
Metal containing heat stabiliser for polymers A08-A04A
Metal containing monomer/ condensant A01-A+
Metal drawing of sheet, wire, rod, tube or profile M21-B01
equipment M21-B01B
processes M21-B01A
Metal extrusion of sheet, wire, rod, tube or profile M21-B02
auxiliary processes M21-B02B
control devices M21-B02D
equipment M21-B02C
processes M21-B02A
Metal fillers or reinforcing agents for polymer A08-R05
Metal incorporated polymer A10-E20 A10-E21 A10-E22
Metal inhibitors for polymer A08-A07
Metal insulator semiconductor field effect transistor (MIST, MISFET) L04-E01C
Metal-organic framework gas sorption J01-E02B1 J01-E03C1 J06-B06C
Metal oxide semiconductor transistors L04-E01B
field effect L04-E01B1
Metal plating of magnetic layers L03-B05E
Metal reinforced with ceramic fibre L02-J01D
Metal reinforced with specifically designed fabric F03-D04

Metal removal from water D04-B05
heavy metals D04-B05A
other metals D04-B05B
Metal salt adhesion promoter for polymers A08-M01C
Metal salt containing polymer A10-E21+ A10-E22+
Metal spraying M13-C
Metal supports for magnetic recording L03-B05L2
Metal wires F04-A
Metal working
ancillary equipment M21-N
control and testing M21-M
manipulators M21-N02
safety devices M21-N03
take-offs, furnaces and cooling beds M21-N04
Metal(loid) containing polymers A06+
Metal, polymer coating on A12-B04+
Metal-ceramic composites L02-J01
Metal-ceramic seals L02-J01C
Metallic electrical conductors L03-A01
insulated L03-A01B
non-insulated L03-A01A
Metallic fibres features
chemical F01-D09
fibres, dyeing/ printing F03-F12
Metallic magnets L03-B02A
Metallic pigments/fillers G01-A12+
Metallised ceramic L02-J01A
Metallised dyes for dyeing/ printing fibres F03-F25
Metallised polymers A11-C04B1
Metallising from metal vapour to form coatings M13-F
Metallising plastics A11-C04B1
Metallising printed circuits L03-H04E3
Metallising textiles F03-H
Metallocenes general E05-V+ B05-V C05-V
bridged carbocyclic E05-V02
carbocyclic with only 1 pi-arene ligand E05-V03
heteroatom-containing rings E05-V04
metallocenes catalysts A02-A06E
Other 3-D structures E05-V05
Unbridged metallocene with 2-4 pi-arene ligands E05-V01
Metalloproteases B04-L05C1 C04-L05C1
Metallurgical coke production H09-A02A
Metallurgy
nuclear applications to K09-J
Metallurgy polymer use A12-W12F
Metals (non-silver), radiation sensitive systems including G06-F04
Metalworking fluid H08-D07
Metathesis of olefins E11-H02
Methacrolein B10-D01 C10-D01
(co)polymers A04-F02
monomer A01-D05
production E10-D01A
use E10-D01D
Methacrylamide
(co)polymers A04-D04+
monomer A01-D06
Methacrylates
diolefinic (co)polymers A04-B09
diolefinic monomers A01-C01
monoolefinic (co)polymers A04-F06+
monoolefinic monomers A01-D10
polyolefinic (co)polymers A04-A03
polyolefinic monomers A01-B03
Methacrylic acid E10-C04G+
(co)polymers A04-F04+
monomer A01-D08
Methacrylic acid aldehyde
(co)polymers A04-F02
monomer A01-D05
Methacrylic acid esters
(co)polymers A04-F06+
monomer A01-D10B
production E10-G02D3
use E10-G02H2C
vinyl methacrylate E10-G02D1 E10-G02H2A
Methacrylic acid halide polymers A04-E
Methacrylic acid production E10-C04G1B
Methacrylic acid use E10-C04G2B
Methacrylic anhydride
(co)polymers A04-F04+
monomer A01-D08
Methacrylic fibres
chemical features in production F01-D02
dyeing/printing F03-F05
Methacrylonitrile B10-A15 C10-A15 E10-A15
(co)polymers A04-D03+
homopolymer A04-D02+
monomer A01-D04
Methacryloyl halide polymers A04-E
Methallyl acrylate
(co)polymers A04-B09
monomer A01-C01
Methallyl methacrylate
(co)polymers A04-B09
monomer A01-C01
Methallyl sulphonic acid
(co)polymers A04-A06
monomer A01
Methane B10-J02 C10-J02 E10-J02D
production by fermentation D05-C14
4,7-Methanoindene B09-D02 C09-D02 E09-D02
Methine dyes E25-B
Methoxylated melamine formaldehyde resin A10-E08C
Methoxylated methylolated melamine A10-E08C
Methoxymethylated melamine formaldehyde resin A10-E08C
Methyacrylated polymers A10-E07B
Methyl acrylate E10-G02
(co)polymers A04-F06+
monomer A01-D10B
Methyl cellulose A03-A04+ B04-C02A2 C04-C02A2
Methyl ethyl ketone condensant A01-E10
Methyl ethyl ketone peroxide
catalyst for addition polymerisation A02-A01
crosslinking agent for addition (co)polymers A08-C05
crosslinking agent for other polymers A08-D
redox polymerisation catalyst A02-A03
Methyl hydroxypropyl cellulose A03-A04 B04-C02A2 C04-C02A2
Methyl isopropenyl ketone
(co)polymers A04-F03
monomer A01-D05
Methyl methacrylate E10-G02
(co)polymers A04-F06
monomer A01-D10B
Methyl methacrylate-glycidyl acrylate copolymer A04-F06+ A05-A04
4-Methyl pentene-1
(co)polymers A04-G10
monomer A01-D13
Methyl phenol condensant A01-E13
Methyl styrene, alpha substituted E10-J02B
(co)polymers A04-C05
monomer A01-D03
Methyl styrene, o-, m-, or p- E10-J02B
(co)polymers A04-C05
monomer A01-D03
Methyl vinyl ether
(co)polymers A04-F11
monomer A01-D11
Methyl vinyl ketone
(co)polymers A04-F03
monomer A01-D05
2-Methyl-1,3-butadiene E10-J02C
(co)polymers A04-B07
butyl rubber A04-G05A
homopolymer A04-B06
monomer A01-C05
Methylenedioxy-benzene B06-A02 C06-A02 E06-A02
Methylenedioxy-pyridine B06-E03 C06-E03 E06-E03

Methylenedioxy-quinoline B06-E05 C06-E05 E06-E05
Methylolated melamine A05-B02
Methylolated urea A05-B03
MF resins A05-B02
Mica fillers A08-R06B G01-A06
Microarray B11-C08E6 C11-C08E6
Microanalysis J04-B04
Microbial mutants D05-H03
  recombinant D05-H14A
Microbial polysaccharide B04-C02F C04-C02F
Microbicidal B14-A01 C14-A01
Microbiological culture,
  apparatus D05-H02
  media D05-H01
Microbiology A12-W11L D05-H
Microcapsules A12-W05 B12-M11E C12-M11E
  detergent use D11-D02B
  photographic G06-C16
Microcomputers for sewing machines F02-F01B1
Microdenier yarns F01-E06
Microfilm G06-D
Microfluidic devices B11-C08C1 C11-C08C1
Microgels of polymers A12-S
Microorganisms A12-W11L B04-B02B B04-F01 C04-B02B C04-F01
  animal feeds from D03-G02
  bacteria D05-H04
  fungi D05-H05
  linked to a carrier D05-A03A
  linked to a carrier, polymeric A12-W11L
  microbial mutants D05-H03
  protein from B04-B04A5 B04-N03 C04-B04A5 C04-N03 D03-F03
  viruses D05-H06A
Microparticle B12-M11N C12-M11N
Microprocesses J04-F01
Microphones, polymer use A12-E12
Microprocessors in polymer processing A09-D+
Microreactor J04-X04
Microscopy B11-C08J C11-C08J
Microspheres E12-A13
Microsuspension polymerisation A10-B03 A10-B05
Microwave heat sealing/welding of polymers A11-C01+
Microwave treatment of pigments fillers G01-B01
Microwelding printed circuits L03-H04E7
Mikamycin B02-M C02-M
Military
  fabrics and products F04-E02
  polymer use A12-T03D+
  polymer use, reinforced A12-S08D3
Milk B04-B04K C04-B04K D03-B15
  additives D03-B08
  carriers for D03-B10
  concentrates D03-B07
  synthetic D03-B11
  testing D03-B09
  transporting D03-B10
Milling of plastics A11-A05+
Millipedes B04-P01C C04-P01C
Mimetic general and other B14-L01 C14-L01
Minced meat D02-A03B
Mineral (naturally occurring) B04-D02 C04-D02
Mineral acids in detergents D11-B13
Mineral bound to enzyme D05-A01A5
Mineral fibres
  mechanical treatment F01-A03
  preparation L02-B08
  product L02-D11
Mineral oils B04-B01C3 C04-B01C3
  lubricants H07-B
Mineral removal from water D04-B07G
Mineral waxes B04-B01C3 C04-B01C3
Mineralocorticoid antagonist B14-D02A C14-D02A
Mines (explosive) K03-A01
Minicells/organelles B04-F12 C04-F12
Mining
  (meth)acrylamide (co)polymer use in A04-D04A2
  using low or zero gravity M25-F04
  polymer use in A12-W10+
MIP (Macrophage inflammatory protein) B04-H11 C04-H11
Mirrors A12-L03
MIS B04-H10 C04-H10
Miscarriage prevention B14-P03 C14-P03
Missiles, military A12-T03D+ K03-A
Miticide B12-B04 B14-B04A C12-B04 C14-B04A
Mitomycin B02-M C02-M
Mixed chromophore dyes E24-C
Mixed filament yarns F01-E07
Mixers
  flow J02-A02A
  for polymers A11-A03A
  rotary J02-A02B
Mixing A11-A03 J02-A
  devices for fermentation vessels D05-A03B
  equipment A11-A03A J02-A02
  equipment, for batter and dough D01-A05
  glass batch L01-B
  food D03-K07
  processes J02-A01
Mixtures of polymers A07-A
Modacrylic fibres A04-D02B A04-D03B
  chemical features of dyeing/printing F01-D02 F03-F05
Modelling compositions, clays A12-F
Moderating neutrons K08-B
Moderators for nuclear reactors K05-B05
Modification, chemical of
  drying oils G02-B03
  natural resins G02-B01
Modification, chemical of polymers by
  acetalisation A10-E02
  alcoholysis A10-E09+
  alkylation A10-E03
  amidation A10-E17
  amination of epoxy or polyether resins A10-E18
  amination other polymers A10-E19
  arylation A10-E03
  cyclisation A10-E14
  dehalogenation A10-E04
  dehydrohalogenation A10-E04
  depolymerisation, degradation A10-E05+
  electric discharge A10-E10
  epoxidation A10-E06
  esterification A10-E07+
  etherification A10-E08+
  glycolysis A10-E09+
  halogenation A10-E04A
  hydrohalogenation A10-E04
  hydrolysis A10-E09+
  incorporating OH or COOH groups other than by hydrolysis A10-E23
  incorporation of alkali(ne earth) metal including ammonium A10-E21+
  incorporation of other metals including B and Si A10-E22+
  incorporation of phosphorus A10-E20
  irradiating with ionsing

radiation A10-E10
irradiating with visible or UV light A10-E10
nitration, sulphation, thio group formation, sulphonisation A10-E24
oxidation, ozonisation A10-E11
reduction A10-E13
sulphation A10-E24
sulphohalogenation A10-E12B
sulphonation A10-E12A
sulphurisation A10-E24
thio group formation A10-E24
ultrasonic vibrations A10-E10
urethanisation A10-E24
xanthation A10-E24

Modified polymers A10-E+

Modifiers
polymerisation A02-B
viscosity, for polymers A08-M06

Moisture conservation B12-P10 C12-P10 C14-T02

Moisture crosslinking agent A08-D06

Moisture sensitive resistors L03-B01A3

Molasses B04-D01 C04-D01

Molasses, extraction of sugar from D06-F

Molecular chaperones/ chaperonins B04-N09 C04-N09

Molecular properties of polymers, testing of A09-C

Molecular sieve
catalysts N06-A
(silico)phosphate N06-B03 L02-G01A
sorption (petroleum processing) H02-B01
gas sorption J01-E02B1 J01-E03C1 J06-B06C

Molluscicides B12-N04 B14-B12 C12-N04 C14-B12

Molten polymers A12-S

Molybdenum
alloys M26-B13
production M25-G18

Molybdenum catalysts N03-D N03-D02
for polymerisation A02-A06+

Molybdenum compounds B05-A03B C05-A03B
inorganic E35-Q
inorganic compound
pigment G01-A14
organic E05-M E05-M03C

Monitoring radiation K07-A

Monoalkyl orthophosphate (or its salt) B05-B01P C05-B01P E05-G09C

Monoazo dyes
for polymers A08-E03A+
pigment E21

Monobath processing, photographic G06-G15

Monochloroalkane E10-H02K E10-H03C5 E10-H04C5

Monochloroalkene E10-H02J E10-H03C3 E10-H04C3

Monochloroalkyne E10-H02J E10-H03C3 E10-H04C3

Monoclonal Antibodies D05-H11A
prepared by hybridoma techniques D05-H11A1
prepared by recombinant DNA techniques D05-H11A2

Monocotyledons B04-A08C2 C04-A08C2

Monocytes B04-F04 C04-F04

Monoepoxy condensants A01-E07

Monofilaments (monofils) A12-S05E F01-E05

Monoglycidyl ether/ester condensants A01-E07

Monohydric phenols condensants A01-E13

Monolithic capacitors L03-B03B

Monomer
Sulphur dioxide A01-A

Monomer intermediates A01-F

Monomer recovery/removal from polymer A10-G01A

Monomer removal from waste water D04-B06

Monomer, polymerisation coating process A11-B05C

Mononuclear monohydric phenols condensants A01-E13

Mononuclear polyhydric phenols condensants A01-E13

Monoolefin, aliphatic, substituted monomer A01

Monoolefin, aliphatic, substituted polymer
containing halogen (but not nitrogen) A04-E+
containing nitrogen not containing halogen or nitrogen A04-D+ A04-F+

Monoolefin, aliphatic, unsubstituted polymer
(general) A04-G+
application A04-G01E
compounding A04-G01B
fabrication A04-G01C
production A04-G01A
treatment A04-G01D

Monoolefin, aromatic
monomer, substituted A01-D02
monomer, unsubstituted A01-D03
polymer A04-C+

Monoolefinic monomers A01

Monoquaternary ammonium compounds B10-A22 C10-A22 E10-A22

Monosaccharides (general) B04-D01 C04-D01
with no heterocyclic ring B10-A07 C10-A07 E10-A07

Monothiocarbamic acid, or ester (organic) B10-A12B C10-A12B E10-A12B E10-A12B1 E10-A12B2

Mops A12-D03

Mordant, photographic A12-L02F G06-H10

Morphinan B04-A04 B06-D18 C04-A04 C06-D18 E06-D18

Morphine B04-A04 C04-A04

Morpholine B07-E03 C07-E03 E07-E03

Mortars, cements A12-R01A L02-D01

Moss B04-A07D B04-A08A C04-A07D C04-A08A
controlling B12-P07 C12-P07

Moth proofing
of fabrics, non-resinous A12-S05R F03-C02B
of fabrics, resinous A12-G F03-C02B

Motilin B04-J12 C04-J12

Motion sickness treatment B12-D05 B14-E05 C12-D05 C14-E05

Motor molecules B04-H20 C04-H20

Motors, electric A12-E08B L03-B02E

Mould inhibitors B12-A02 B14-A04 C12-A02 C14-A04

Mould material
control and testing M22-A
drying or cooling M22-B03
hardening including catalysts M22-A
machines for handling or dressing M22-B
mixing, grinding and kneading M22-B01

reclaiming, sieving and separating M22-B02
Mould release agents for concrete moulding L02-D02
polymers A08-M03B
Mould repellent (biological) A08-M02
Mouldable refractories L02-E05
Moulded articles E12-A09
Moulding
blow L01-E03
food D03-K06
foundry M22-A
glass L01-E05
machine M22-E
pressure (ceramics) L02-A03
pressure (glass) L01-E04
Mouldings of polymers
blow A11-B10
compression A11-B11
equipment control/safety in A09-D1
foams A11-B06C
injection A11-B12+
rotational A11-B04A
slush A11-B04B
stereographic A11-B16
stereolithographic A11-B16
transfer A11-B11
with crosslinking A11-C02D
Mouldings, polymeric, ejection of A11-C06
Moulds
apparatus for production (for foundry casting) M22-E
chill casting M22-G03C1
compositions M22-A01
compositions, inorganic binders M22-A02
compositions, organic binders M22-A03
compositions, surface coating, release composition M22-A04
continuous casting M22-G03A1
design production (for foundry casting) M22-D
for glass L01-E06
for ingots M22-G02B
injection A11-B12B
of plastics, of polymers A12-A02
A12-H05
of rubber A12-H05
Moulds, compositions surface coating, mould
Mouth preparations B12-L04
B14-N05
C12-L04
C14-N05
D08-B08+
Mouth disease B14-N05A
C14-N05A
Mouth wash D08-B08B
whitening D08-B14B
MSH (melanocyte stimulating hormone) B04-J05G
C04-J05G
Mucolytic B12-K05
B14-K01E
C12-K05
C14-K01E
Mud, drilling A12-W10A
Mulch films A12-S06+
A12-W04A
B12-P10
C12-P10
C14-T02
Mulches A12-W04A
B12-P10
C12-P10
C14-T02
Mule spinning F01-G02
Mullerian inhibitory substance B04-H10
C04-H10
Multi-CSF B04-H02C
C04-H02C
Multicolour diffusion transfer materials G06-C09+
Multicomponent inorganic pigment G01-C
Multicore optical glass fibres L01-F03J
Multilayer (electro)-photographic systems G06-C14+
Multilayer systems i.e. with multiple conductive layers L04-C13
Multiple sclerosis treatment B12-C10
B12-E02
B14-S01
C12-C10
C12-E02
C14-S01
Multiply paper material F05-A06A
multiply tissue/wipes F05-A06A2
Multistep processing in semiconductor manufacture involving conductive and insulating layer formation L04-C14
L04-C15
Multivitamin compositions B15-Z
C15-Z
Muscarinic B14-J02A2
C14-J02A2
Muscle contractant B14-J05C
C14-J05C
Muscle proteins B04-H20C+
C04-H20C+
Muscle relaxants B12-E02
B14-J05A
C12-E02
C14-J05A
Muscular active general B14-J05
C14-J05
Mushrooms
cultivation D05-A04C
extracts B04-A07F1
B04-A10A
C04-A07F1
C04-A10A
protein B04-B04A4
B04-N01
C04-B04A4
C04-N01
whole B04-A07D5
B04-A08D
C04-A07D5
C04-A08D
Musical instruments A12-W08
Mutagen B14-H02
C14-H02
Mutant formation - general D05-H03
Mutant sequences D05-H12B
engineered D05-H12B2
naturally occuring D05-H12B1
Mutase B04-L07
C04-L07
Mycobacteria B04-F10B2
C04-F10B2
Mycobactericides (-stats) B12-A03
B12-A04
B14-A01B1
C12-A03
C12-A04
C14-A01B1
Mycocides B12-A02
B14-A04
C12-A02
C14-A04
Mycoplasma B04-B02B5
B04-F10A4
C04-B02B5
C04-F10A4
Mycostats B12-A02
B14-A04
C12-A02
C14-A04
Mydriatics B12-E03
B14-J05B
C12-E03
C14-J05B
Myeloma B14-H01P
C14-H01P
Mylar ® A05-E04+
Myocardial infarct treatment B12-F01B
B14-F01B
C12-F01B
C14-F01B
Myopics B12-E03
B14-J05B
C12-E03
C14-J05B
Myosin B04-H20C2
C04-H20C2
Myotrophics B12-E02
B14-J05
C12-E02
C14-J05
Myotropics B12-E02
B14-J05
C12-E02
C14-J05
Myriapods B04-P01C
C04-P01C

N

N-Acylation reactions E11-F07D
N-methylol (meth)acrylamide
(co)polymers A04-D04+
monomer A01-D06
N-Propyl acrylates
(co)polymers A04-F06+
monomer A01-D10B
N-vinyl carbazoles
(co)polymers A04-D06
monomer A01-D01
N-vinyl phthalimides
(co)polymers A04-D08
monomer A01-D01
N-vinyl pyridines
(co)polymers A04-D07
monomer A01-D01
N-vinyl pyrrolidones
(co)polymers A04-D05A
monomer A01-D01
Nadic condensants A01-E12
Nafion ® A04-E09
A04-E10+
Nail care preparation A12-V04C
D08-B02
artificial nails D08-B02C
polish D08-B02A
polish remover D08-B02B
Nail disease treatment B14-N19
C14-N19
Nails (or extracts) B04-B04E
C04-B04E
Nairit ® A04-B08
Nanobuds (carbon only) E05-U05D
Nanocatalyst N06-C09
Nanocrystals M26-C02
Nanofilms E31-U03
B05-U05B
C05-U05B
Nanofilms (carbon only) E05-U05C
Nanofilters J01-C04
Nanoform (morphology)
chromophores (general) E27-B03A
dyes E27-B02A
pigments E27-B01A
Nanohorns (carbon only) E05-U05D
Nanomaterials
conductive L03-A01A6
L03-A02G
insulative L03-A03N
semiconductive L03-A01C4
L04-A05
Nanoparticles E31-U01
Nanoparticles (carbon only) E05-U05A
Nanophase alloys M26-C02
Nanopowder (carbon only) E05-U05A
Nanorods E31-U02
Nanorods (carbon only) E05-U05B
Nanostructures, inorganic B05-U06
C05-U06
E31-U
Nanostructures (bound to dye or pigment)
E24-U
Nanostructures (containing heteroatoms)
E05-U06
Nanostructures (organic) E05-U07
Nanotechnology B11-C12
C11-C12
J04-F02
A12-W14
Nanotechnology devices B12-M10A7
C12-M10A7
Nanotubes, carbon only B05-U03
C05-U03
E05-U03
E31-U02
L02-H04B
double-walled E05-U03B
multiple-walled E05-U03C
single-walled E05-U03A
Nanotubes, carbon plus heteroatom B05-U04
C05-U04
E05-U04
Nanowhiskers E31-U02
Nanowhiskers (carbon only) E05-U05B
Naphtha extenders A08-P08
Naphthacene B08-C01
C08-C01
E08-C01
Naphthalene B10-J02
C10-J02
E10-J02B
condensant A01-E
Naphthalene 1,5- diisocyanate condensant A01-E02
Naphthalene dicarboxylic acid E10-C02C
E10-C02C1B
E10-C02C2B
condensant A01-E11
Naphthalene dicarboxylic based saturated polyester A05-E05A
Naphthalene sulphonic acid condensant A01-A
A01-E
Naphthalene sulphonic acid-formaldehyde resin A05-J08
Naphthalenes, vinyl
(co)polymers A04-C05
monomer A01-D03
Naphthol condensant A01-E13
Naphtholic couplers, photographic G06-H08A
Napkins, baby A12-V03A
F04-C01A
shape of D09-C03
Napping of fabrics F03-A
Narrow fabrics F02-E02
Nasal preparations B12-L04
B14-N04
C12-L04
C14-N04
Natriuretics B12-G03
B14-N08
C12-G03
C14-N08
Natta catalysts for polymerisation A02-A06+
Natural flavouring agents D03-H01C
food colorant D03-H01E1
gums A03-A
A03-C02
resins A03-C02
G02-B01
rubber A03-B
Natural fibrous material treatment
chemical F01-B+
mechanical F01-A+
Natural gas H01-F
field treatment H01-F01
liquefaction H01-F02
products H06-A02
recondensation systems for H03-E01
Natural leather, coatings on A12-B06
Natural polymers A03-A+
A03-B+
A03-C+
B04-C03D
C04-C03D
adhesives/binders A12-A05A
G03-B02A
coatings on metal A12-B04C
coatings/paints A12-B01D
G02-A02A
in polymeric blend A07-A01+
modified by alkali(ne earth) metal incorporation A10-E21A
production A10-A
Natural polypeptides A03-C01
Natural products (general) E04
Natural resins A03-C02
B04-C03D
C04-C03D
G02-B01
for coating metal A12-B04C
paints G02-A02A
Natural rubber A03-B
B04-C03D
C04-C03D
adhesives/binders A12-A05A
G03-B02B
in polymeric blends A07-A+
latex A07-B01
Nausea treatment B14-E05
C14-E05
NBR (acrylonitrile-butadiene rubber) A04-B04
Near infra-red dyes E24-D
Nebulizer B12-M01B3
C12-M01B3
Needles B11-C02B
C11-C02B

Needle-free injector B11-C04E
C11-C04E
Needle selection in knitting machines F02-B01
Needling to give non-woven fabrics F02-C02D
Neisseria B04-F10A5
C04-F10A5
Nematocides B12-B02
B14-B03A
C12-B02
C14-B03A
Neodymium compounds B05-A03B
C05-A03B
catalysts N03-A02B
inorganic E34-E02B
organic E05-P
Neomycin B02-N
C02-N
Neon (element) B05-B02C
C05-B02C
E31-J
Neon compounds B05-B02C
C05-B02C
inorganic E31-J
organic E05-K
Neopentyl glycol condensant A01-E14
Neoprene
(co)polymers A04-B08
monomer A01-C04
Nephritis treatment B12-G03
B14-N10
C12-G03
C14-N10
Neptunium compounds B05-A04
C05-A04
inorganic E35-R
organic E05-Q
Nerve gas antidotes B12-E04
B12-J05
B14-M01
C12-E04
C12-J05
C14-M01
Net fabrics A12-S05J
F02-E03
Net lace F02-E01
Net making F02-E03
Nets A12-P07
F02-E03
Neurohypophyseal B04-B02D4
B04-J05
C04-B02D4
C04-J05
Neuroleptics B12-E02
B14-J01B3
C12-E02
C14-J01B3
Neuroprotective B14-J01
C14-J01
Neurospora B04-F09B
C04-F09B
Neurotensin B04-J15
C04-J15
Neurotropics B12-E02
B14-J01A4
C14-J01A4
Neutral refractories L02-E09
Neutrocyanine/merocyanine spectral sensitisers G06-H07B
Neutron
counters K08-A01
flux control (nuclear reactor) K05-B06A
moderating and producing K08-B
Neutrophil activating protein B04-H02J
C04-H02J
Nibs for pens A12-D05B
Nickel
alloys M26-B08
alloys, magnetic L03-B02A4
electrodeposition M11-A02
electrodes for batteries L03-E01B4
production M25-G19
Nickel catalysts N02-C
element N02-C01
Raney N06-C
Nickel compounds B05-A03B
C05-A03B
inorganic E35-W
inorganic compound pigment G01-A13
organic E05-L02
E05-L02C
Nickel, Raney, see also N06-C
Niobium
alloys M26-B13
Niobium catalysts N03-C
N03-C03
for polymerisation A02-A06+
Niobium compounds B05-A03B
C05-A03B
inorganic E35-N
organic E05-M
E05-M03A
Nitrates, cellulose A03-A03
B04-C02A3
C04-C02A3
Nitrates, inorganic
general B05-C02
C05-C02
E31-H
removal from water D04-B07C
Nitrates, organic B10-A05
C10-A05
E10-A05
Nitration (catalytic) N07-D08C
Nitration of polymers A10-E24
Nitric acid B05-C02
C05-C02
E31-H
Nitric oxide
agonists B14-L01D
C14-L01D
antagonists/inhibitors B14-L06D
C14-L06D
Nitrides
abrasive L02-F03
ceramic L02-H02B2
hard alloy M26-B12
layers on semiconductors L04-C12B
Nitriding metal
using gas M13-D03A
using liquid M13-D02A
using solid M13-D01A
Nitriding metal using
Nitrification inhibitors B12-N08
C12-N08
C14-T01D
Nitrile acrylic
(co)polymers A04-D03+
monomer A01-D04
polymer A04-D02+
Nitrile rubber A04-B04
Nitrites, organic B10-A05
C10-A05
E10-A05
Nitro compounds, organic B10-G03
C10-G03
E10-G03
Nitro dyes E25-A
Nitrocellulose A03-A03
B04-C02A3
C04-C02A3
Nitrogen (element) B05-C03
C05-C03
E31-H03
Nitrogen catalysts N04-A
Nitrogen compounds, inorganic (excluding ammonia, ammonium) E31-H
halogen and/or sulphur containing E31-H03
other, production E31-H04
other, use E31-H05
Nitrogen containing compound crosslinker A08-C09
A08-D03
A08-D04
Nitrogen containing inorganic compounds
removal from water D04-B07C
Nitrogen containing inorganic detergent additives D11-B20
Nitrogen containing mono-unsaturated monomers
amide A01-D06
cyclic A01-D01
nitrile (aliphatic) A01-D04
others (not specified above) A01-D07
Nitrogen containing monoolefinic (co)polymers A04-D+
Nitrogen halides, organic B10-A02
C10-A02
E10-A02
Nitrogen oxides, inorganic B05-C03
C05-C03
E31-H
E31-H
production E31-H04
removal, catalytic E31-H01
H06-C03B
removal, other E31-H02
use E31-H05

Nitrogen oxides, organic B10-A03 C10-A03 E10-A03B
Nitrolic acid B10-A03 C10-A03 E10-A03A
Nitrone B10-A03 C10-A03 E10-A03A
Nitroso compounds, organic B10-A03 C10-A03 E10-A03C
Nitroso dyes E25-A
Nitroso group containing
(co)polymers A04-A04
monomer A01-A05
NMR analysis of polymers A09-B
NMR diagnosis B12-K04C2 C12-K04C2
NMR testing B11-C08A B11-C08G2 C11-C08A C11-C08G2
Nobelium compounds B05-A04 C05-A04
inorganic E35-R
organic E05-Q
Noble gas catalysts N04-A
Noble gases B05-B02C C05-B02C E31-J
compounds B05-B02C C05-B02C
compounds, organic E05-K
inorganic E31-J
Noble metals
alloys M26-B01
electrodeposition M11-A05
production (excluding silver) M25-G20
Noble metals catalysts N02
Noise insulation A12-R06
in transport A12-T04B
Nomex ® A05-F05
Non-chocolate candy+
chewy D03-E10B2
hard D03-E10A2
Non-circular fibres A12-S05A F01-E02
Non-coding sequences D05-H12D
antisense sequences D05-H12D2
other D05-H12D6
primers D05-H12D1
probes D05-H12D1
regulation sequences D05-H12D5
ribozyme D05-H12D4
triple-helix forming D05-H12D3
Non-combustible polymers A09-A01
Non-destructive testing of
ferrous metals M24-E
non-ferrous metals M25-H
welds M23-G
Non-drying oil derived
polyesters A05-E08
Non-electrolytic deposition/
coatings
cathode sputtering M13-G
cementation by diffusion processes M13-D
cladding of or with metal M13-H01
electroless plating M13-B
electrostatic coating, general M13-H06
electrostatic coatings M13-H06
enamelling/vitreous coating of metal M13-J02
gas plating by decomposition or reduction M13-E
hot dip metal coating M13-A
metal spraying M13-C
metallising from metal vapour M13-F
oil free lubricant and friction coatings M13-K
plastics coatings M13-H05
refractory coatings, general M13-H04
sintering on or of metal M13-H02
using adhesives M13-H03
vacuum evaporation or
Non-ferrous alloys (based on particular metals) M26-B
Non-ferrous alloys (changing physical structure)
changing physical properties M29-E
cold working M29-B
heat treatment M29-C
heat treatment, apparatus M29-C02
heat treatment, of specific articles M29-C01
hot working M29-A
special physical treatment M29-D
Non-ferrous alloys (production) M26-A
by melting M26-A01
by pressing or sintering M26-A02
by removing material from another alloy M26-A03
Non-ferrous metal compounds
extraction from ore by wet method M25-B
Non-ferrous metals (changing physical structure)
changing physical properties M29-E
cold working M29-B
heat treatment M29-C
heat treatment, apparatus M29-C02
heat treatment, of specific articles M29-C03
hot working M29-A
special physical treatment M29-D
treating and testing (other) M29-E
Non-ferrous metals (production)
apparatus M25-J
control/testing M25-H
dry reduction of ore M25-C
dry reduction of ore, apparatus M25-C01
dry reduction of ore, methods M25-C02
extraction from scrap, flue dust, slag M25-E
refining by carbonyl reduction M25-D
refining in a vacuum M25-F01
specific metal by general method M25-G
Non-ferrous ore treatment M25-A
concentration M25-A01
sintering, crushing, roasting, briquetting M25-A02
Non-flammability of polymers A09-A01
Non-ionic detergents A12-W12+ D11-A03
Non-iron textile finish
non-resinous A12-S05R F03-C04
resinous A12-G02 F03-C04
Non-magnetic layers for magnetic recording L03-B05K
Non-mammalian extract (general) B04-B04M C04-B04M
Non-metal additive in glass composition L01-A07
Non-metal compounds E31
Non-metal conductors L03-A02A
Non-metal/ceramic composites L02-J02
Non-metallic coating of
metal by surface reaction M14-D
chromate layer M14-D03
oxide layer M14-D01
phosphate layer M14-D02
Non-metallic coating of metal electrolytically M11-F
Non-metallic electric conductors L03-A02
non-insulated L03-A02A
Non-metallic magnets L03-B02B
Non-metals E31
Non-oxide ceramics L02-H
Non-oxide network former, in glass composition L01-A07B
Non-polymer coating
on fabrics and fibres (sizes) A12-G04
on polymers A11-C04+
Non-radiation sensitive agent
binders G06-A06
filter dyes G06-A02
nucleating G06-A04
nuclei G06-A04
screening dyes G06-A02
Non-radiation sensitive copying materials G05-E
Non-radiation sensitive layer
antihalation G06-A02
antistatic G06-A03
barrier G06-A08
conversion screens G06-A09
dielectric G06-A13
electrically conductive (for electrophotography) G06-A07
filter G06-A02
intensifying screens G06-A09
intermediate G06-A10

magnetic G06-A12
nucleating G06-A04
protective G06-A08
receiving G06-A04
reflective G06-A11
release G06-A05
scratch resistant G06-A08
storage phosphors for X-ray material G06-A09
stripping G06-A05
subbing G06-A01

Non-resinous sizing of fabrics and fibres A12-G04

Non-silver metal, radiation sensitive system including G06-F04

Non-steroidal nuclear hormone receptors B04-K01X C04-K01X

Non-stick coatings G02-A05D

Non-woven fabrics A12-S05G F02-C01
adhesive or binder bonded F02-C01C
polymer-bonded A12-B02B
production F02-C02
production by air laying F02-C02F
production by hydroentangling F02-C02F
production by spunlacing F02-C02F
production by wet laying F02-C02F

Non-woven pile fabrics F02-C01A

Non-woven self-bonded fabrics F02-C01B1

Nonyl phenoxy polyethylene glycol A10-E08B

Noodles D01-B02E

Nootropics B14-J01A4 C14-J01A4

Norbornene
monomer A01-D13
monoolefinic (co)polymer A04-G

Normalising, ferrous metals M24-D02B

Norovirus B14-A02B0 C14-A02B0

Nose preparations B12-L04 B14-N04 C12-L04 C14-N04

Notched izod impact strength A09-A05A

Novobiocin B02-N C02-N

Novolacs A05-C+

Nozzles J02-C01
for glass fibre formation L01-F03B
for metal casting M22-G03G1

NR - see Natural rubber A03-B

Nub yarn A12-S05E F01-E

Nuclear warfare engineering protection against K02-A03

Nuclear ceramic oxides L02-G09

Nuclear engineering (polymer use) A12-W11C

Nuclear explosives K08-D

Nuclear fusion reactors K05-A03
constructional features K05-A03C
fusion targets K05-A03B
plasma containment K05-A03A

Nuclear hormone receptor B04-K01X C04-K01X

Nuclear magnetic resonance
analysis of polymers A09-B
testing B11-C08A B11-C08G2 C11-C08A C11-C08G2 J04-B01A

Nuclear power
heat exchangers for K06-B
plant aspects K06-X
steam raising plant for K06-A

Nuclear reactors K05-A
accessories K05-B07
materials for K05-B10

Nucleating agents for polymer foam A08-M10 A08-S07

Nucleating layer, photographic G06-A04

Nucleic acid - see also DNA and RNA B04-B04A1
detection and analysis of J04-B03

Nucleosides B04-B03A C04-B03A
biosynthesis of D05-C06
Modified nucleosides B04-B03D C04-B03D

Nucleotides B04-B03B C04-B03B
biosynthesis of D05-C05
Modified nucleotides B04-B03E C04-B03E

Nutritional additives, or compositions

Nutritional agents B14-E11 C14-E11

Nuts (seed) B04-A09F C04-A09F
extracts B04-A10G C04-A10G
products D03-Q

Nuts and bolts A12-H12

Nuts, treatment of D03-J02

Nylon 11 A05-F03 F01-D03A
dyeing fibres A12-S05N F03-F06+

Nylon 6 A05-F03 F01-D03A
dyeing fibres A05-F02 A12-S05N F03-F06+

Nylon 66 F01-D03A
dyeing fibres A12-S05N F03-F06+

Nylon 6:10 A05-F02 F01-D03A
dyeing fibres A12-S05N F03-F06+

Nylon 6:6
Nylon 66 A05-F02

Nylon fibre filler for polymers A05-F+ A08-R08A

Nylon fibres dyeing/printing A12-S05N F03-F06+

Nylons A05-F+

Nylons modified by alkylation or by alkoxyalkylation A10-E19

Nystatin B02-N C02-N

O

O/W dispersion of polymers A07-B+
Obesity treatment B14-E12
C14-E12
Octene-1
(co)polymers A01-D13
monomer A04-G
Odorant for polymers A08-M04
Odorant treatment of textiless F03-C09
Oedema treatments B12-G03
C12-G03
general B14-C03
C14-C03
Oesophagus disease treatment B14-E10A
C14-E10A
Oestr - see also Estr-
Oestrogen inhibitors B12-G01A
B14-D02A
C12-G01A
C14-D02A
Oestrogen receptors B04-K01L2
C04-K01L2
Oestrogenic B12-G04C
B14-D01B
C12-G04C
C14-D01B
Oestrus cycle determination B12-K04A6
B12-K04G2E
C12-K04A6
C12-K04G2E
Office equipment A12-D05+
Office use, polyethylene in A04-G02E3
A12-D05+
Office, polypropylene use in A04-G03E1
A12-D05+
Oil baths, heat treatment of
iron and steel M24-D02C
Oil cloths
general F04-B01
with polyurethanes F04-B01A
with polyvinyl chloride F04-B01B
Oil lifting equipment H01-D01
Oil repellant textile treatment
non-resinous A12-S05R
F03-C02
resinous A12-G03
F03-C02
Oil shale production and
treatment H01-D10
Oil testing methods H01-E03
Oil well
consolidation H01-C09
control equipment H01-B03B
Oil wells (polymer use) A12-W10+
Oil-in-water dispersion of
polymers A07-B+
Oiling agents for fibres A08-M03A
Oiling of fibres F01-H06+
Oils D10-A
additives, methacrylate
antioxidants for D10-A03
additives, methacrylate
antioxidants for,
(co)polymer in A04-F06E3
A12-W02A
chemical modification of D10-B02
compositions containing D10-A06
cooking(liquid) D03-C01
dielectrics for cables L03-A01B
dielectrics for capacitors L03-B03
dielectrics for transformers L03-B02D
drying G02-B03
edible D03-C
edible(liquid) D03-C01
essential D10-A05
extenders A08-P08
fatty acids from D10-B01
halogenated B04-B01A
C04-B01A
filtration J01-F04X3
insulating for cables L03-A01B4
insulating for capacitors L03-B03D
plasticisers A08-P08
pollution of water by,
treatment D04-B02
D04-B03
H03-G
H05-L02
preservation, by additives D10-A03
production from raw
materials D10-A01
proofing textile - see Oil
repellant textile treatment
recovery A12-W10B
refining D10-A02
removal from water A12-W11+
D04-B02
D04-B03
J01-D03
repellants as - see Oil
repellant textile treatment
repellants as additives
for polymers A08-S08
repellants as textile
finishes/treatment A12-G03
separation of mixtures of D10-A04
slick control A12-W11+
D04-B02
D04-B03
textile finishes - see Oil
repellant textile treatment
unhalogenated B04-B01C
C04-B01C
Ointments B12-M02
C12-M02
Oleandomycin B02-O
C02-O
Olefinics
di-unsaturated polymers A04-B+
hydrocarbon polymer
adhesives A12-A05+
mono-unsaturated
monomers A01
mono-unsaturated,
aromatic polymer A04-C
monomer as crosslinking/
curing agent A08-C07+
Olefins B10-J02
C10-J02
E10-J02C
(co)polymer in polymeric
blends A07-A+
diolefinic (co)polymers A04-B+
diolefinic monomers A01-C+
metathesis E11-H02
monoolefinic (co)polymers A04-G+
monoolefinic monomers A01-D13
production by
disproportionation E10-J02C2
production by
oligomerisation E10-J02C1
production by other methods
E10-J02C3
uses E10-J02C4
Olefins, mono-unsaturated -
see Monoolefins
Oligomerisation A10-B08
equipment A10-B01
Oligonucleotides B04-B03C
C04-B03C
D05-H12
antisense sequences D05-H12D2
modified B04-B03F+
C04-B03F+
primers D05-H12D1
probes D05-H12D1
triple-helix forming D05-H12D3
Oligosaccharides B04-C02X
C04-C02X
Omega-aminocaproic acid
condensant A01-E04
Omega-aminoenanthic acid
condensant A01-E04
Omega-aminoundecanoic
acid condensant A01-E04
On-site foaming A11-B06+
of polyurethanes A12-S02A
Oncogene B04-E02G
B04-E03G
C04-E02G
C04-E03G
Onium compounds as
disinfectants other than
of food or air D09-A01B
Open cell foams A12-S+
Open hearth process M24-B02B
Open-end spinning F01-G05
Opening of fibres F01-F03
Ophthalmic lenses A12-L02A
A12-V02A
D09-C01A
Ophthalmic preparations B12-L04
B14-N03
C12-L04
C14-N03
Opium alkaloids B04-A04
C04-A04
Optical (electro-) uses A12-E11+
Optical application of glass L01-L05

Optical bleaches A08-E03C
E24-A
F03-B01
addition to paper F05-A06D
Optical bleaching of
fabrics F03-B01
polymer A11-A01+
Optical brighteners E24-A
for detergents D11-B01
for fabrics F03-B01
for paper F05-A06D
inorganic pigments A08-E02
organic A08-E03C
removal from water D04-B06B
Optical cables
coatings G02-A05H
Optical cables (polymer use) A12-L03A
F04-G01
Optical ceramic oxides L02-G10
Optical cards L03-G04B5
Optical discs L03-G04
coatings L03-G04B4
photographic use G06-D07
polymer use A12-L03C
Optical fibres F04-G01
L01-L05
coatings G02-A05H
manufacture-glass film
deposition L01-F03F3
polymer use A12-L03A
Optical filters A12-L03D
(electro)photogaphic
production of G06-D06B
Optical glass component
coating L01-G04D
Optical glass fibres L01-F03M
cable manufacture L01-F03L
coating L01-F03A1
core and sheath
manufacture L01-F03F1
cutting and joining L01-F03H
drawing and spinning L01-F03G
manufacture, multicore
and elliptical single core L01-F03J
manufacturing apparatus L01-F03K
preform manufacture L01-F03F
with preformed sheath
and core L01-F03F4
Optical memory elements L03-G04B
Optical parts of vehicles
(polymer use) A12-T04A
Optical processes B11-C08J
C11-C08J
Optical properties of polymers A09-A02+
Optical sensitisers G06-H07+
Optical storage media,
photographic use G06-D07
Optical uses of (meth)acrylamide
(co)polymer A04-D04A1
A12-L+
(meth)acrylate (co)polymer A04-F06E4
A12-L+
polymers A12-L+
PVA A10-E09B2
A12-L+
silicones A06-A00E4
A12-L+
Optically anisotropic melt
of polymers A09-A02A
Optically anisotropic/ anisotropy
of polymers A09-A02A
Optically readable records A12-L03C
Opto-electronics A12-E11+
L03-G
devices L03-G10
electrophotographic
production of G06-D06B
materials L03-G
Ordered copolymerisation
by addition A10-C+
Ore (non-ferrous) treatment M25-A
concentration M25-A01
sintering, crushing,
roasting, briquetting M25-A02
Ore treatment for iron and
steel manufacture M24-A01
Organs, artificial B11-C04F
C11-C04F
Organ preservation D09-A03A
Organelles/minicells B04-F12
C04-F12
Organic coatings on glass
sheet L01-G04B
of polymers A12-B05
Organic compounds catalyst N05
Organic photoconductors
for radiation sensitive
system G06-F06
Organic pigments A08-E04
Organic semiconductors
materials L04-A04
polymer use in A12-E07C
Organic substrates
Metal coatings, processes M13-F03C
Organic treatment of
pigment/filler G01-B03
Organic waste fermentation D05-A04A
Organo silane adhesion
improvers A08-M01D
Organoaluminium + transition
metal (compound)
polymerisation catalyst A02-A06C
Organoaluminium compound
(not with transition metal/
compound) as polymerisation
catalyst A02-A07C
Organoantimony compounds B05-A02
C05-A02
E05-J
Organoarsenic compounds B05-B01C
C05-B01C
E05-H
Organoboron compounds B05-B01A
C05-B01A
E05-C
E05-C01
E05-C02
Organolithium catalysts for
polymerisation A02-A07+
Organometallic compounds B05
C05
E05
activator for Ziegler type
catalysts A02-A07A
catalysts (excluding
transition metals) A02-A07+
complexes (general) E05-W
condensants (for polymers) A01-A04
monomer A01-A04
Organophosphorus compounds
B05-B01
E05-G
Organoselenium or -tellurium
compounds B05-B01D
C05-B01D
C05-B01D
E05-K
Organosilicon compounds B05-B01B
C05-B01B
E05-E
Organosols of polymers A12-S
Orientation
fibres A11-B02B
F01-C06
films A11-B02A
polymers A11-B02+
Orlon ® A04-D02+
A04-D03+
F01-D02
Orphan G protein coupled
receptor B04-K01
C04-K01
Orthopaedic casts A12-V03A
Orthophosphoric acid
(and salts) B05-B02A
C05-B02A
E31-K
Orthophosphoric acid,
alkyl ester B05-B01P
C05-B01P
E05-G09C
Osmium
alloys M26-B01
electrodeposition M11-A05
production M25-G20
Osmium catalysts N02-E
Osmium compounds B05-A03B
C05-A03B
inorganic E35-X
organic E05-N
E05-N02A
Osmosis J01-C03
in water treatment reverse A12-W11A
Osmotic pump B12-M01A1
C12-M01A1
Osteoarthritis treatment B14-C09A
C14-C09A
Other condensation polymer
coatings A12-B01V
Osteogenesis treatment B14-N01B
C14-N01B

Osteoporosis treatment B12-J08 B14-N01A C12-J08 C14-N01A
Other processes, appts. B11-C09 C11-C09
Apparatus B11-C09B C11-C09B
Processes B11-C09A C11-C09A
Oto-rhino laryngology C12-L04
Outerwear A12-C03 F04-C03
Outset moulding A11-B12+
Ova B04-F03 C04-F03
Oven cleaners D11-D01B1
Ovicide C12-B04
Ovulation inhibitors B12-G01 B14-P01B C12-G01 C14-P01B
Oxacyclobutanes B07-A03 C07-A03 E07-A03C
condensants A01-E08
Oxadiazole B07-E04 C07-E04 E07-E04
Oxalic acid B10-C02 C10-C02 E10-C02D E10-C02D1
Oxanol spectral sensitiser G06-H07C
Oxathiazine B07-G C07-G E07-G
Oxathiazole B07-G C07-G E07-G
Oxathiole B07-C C07-C E07-C
Oxazine (excluding morpholine) B07-E02 C07-E02 E07-E02
condensants A01-E06
Oxazole B07-E01 C07-E01 E07-E01
photographic brighteners G06-H09A
Oxazoli(di)nes condensants A01-E06
Oxazolines chain couplers for polymers A02-B
Oxepine B07-A03 C07-A03 E07-A03C
Oxetane B07-A03 C07-A03 E07-A03C
condensants A01-E08
Oxidase agonists B14-L01A1 C14-L01A1
Oxidase inhibitors B14-D05A C14-D05A
Oxidation
LOCOS L04-C12C3
polymers A10-E11
sewage and waste water D04-B08
water D04-A01K
water using ozone D04-A01K1
water using other D04-A01K2 D04-B08
Oxidation base, for dye (general) E26
Oxidation process B11-C01 C11-C01 E11-E
for polymers A10-E11
other than with air or oxygen (O2) (catalytic) N07-C03
with air E11-E01
with air (catalytic) N07-C01
with oxygen (O2) E11-E01
with oxygen (O2) (catalytic) N07-C01
Oxidative polymerisation A10-D06
Oxide catalyst carrier L02-G12
for polymerisation A02-D
Oxide coating of metals by surface reaction M14-D01
Oxide layers for semiconductors L04-C12A
Oxide network formers in glass composition L01-A07A
Oxides of non-transition metals as polymerisation catalysts A02-A07+
Oxides of transition metals as polymerisation catalysts A02-A06A
Oxides, abrasive, harsh L02-F04
Oxides, inorganic (general) B05-C08 C05-C08 E31-D L02-G+
preparation L02-G12
Oxidised polymers A10-E11
Oxidising agents
as crosslinkers A08-C05 A08-D
as polymerisation catalysts A02-A+
Oxidising agents as disinfectant other than of food or air D09-A01A
Oxidising, using gas M13-D03B
Oxidoreductase B04-B02C2 B04-L03 C04-B02C2 C04-L03
Oxidoreductase agonists B14-L01A1 C14-L01A1
Oxidoreductase enzyme process D05-A01B1 D05-A02A
Oxidoreductase inhibitors B12-G01B1 C12-G01B1
general and other B14-D05 C14-D05
Oxidoreductase production by fermentation D05-C03B
Oxime B10-A18 C10-A18 E10-A18 E10-A18A E10-A18B
Oxirane B07-A03 C07-A03 E07-A03
condensant A01-E07
Oxonium compounds B10-A01 C10-A01
organic E10-A01
Oxy-diethanol condensant A01-E14
Oxygen (element) B05-C08 C05-C08 E31-D
in oxidation reaction E11-E01
Oxygen catalyst for polymerisation A02-A01
Oxygen catalysts N04-A
Oxygen halide (organic) B10-A02 C10-A02 E10-A02
Oxygen stabiliser A08-A06
Oxygenase
agonists B14-L01A1 C14-L01A1
inhibitors B14-D05C C14-D05C
Oxygenating devices (polymer use) A12-V03B
Oxyhalides of transition metals as polymerisation catalyst A02-A06B
Oxytetracycline B02-T C02-T
Oxytocin B04-J05A C04-J05A
Oxyuris treatment B12-B02 B14-B03A C12-B02 C14-B03A
Ozone B05-C08 C05-C08 E31-D
generation J03-A01
Ozone catalysts N04-A
Ozone stabiliser A08-A05
Ozonisation of polymers A10-E11
Ozonised polymer A10-E11

P

Package formation of yarns F01-H03D
Packaging involving heat sealing/welding A11-C01A1
Packaging materials using
films (laminates) A12-P01A
glass L01-L06
polyamide A05-F01E3 A12-P+
polyethylene A04-G02E2 A12-P+
polymer A12-P+
polypropylene A04-G03E1 A12-P+
saturated polyester A05-E01D3 A12-P+
Packaging of
coffee D03-D01A
electr(on)ic devices L03-J02
fabrics F04-F04
food D03-K03
glass L01-J04
pharmaceutical and agricultural compositions B12-M04 C12-M04
photographic materials G06-E
plastics A11-C06
semiconductor devices L04-C21
tea D03-D02A
yarns F01-H03+
Packaging types A12-P+
aerosol containers A12-P06A
bags A12-P02
blister packs A12-P06C
boil-in-bag packs A12-D03 A12-P02
bottles A12-P06A
boxes, cartons, crates A12-P06B
closures A12-P03
collapsible tubes A12-P06C
drums A12-P05
film and laminates A12-P01A
foam use in A12-S04C
rigid packs A12-P06B
sachets A12-P06C
sacks A12-P02
shrink A12-P04
tanks A12-P05
wrapping film A12-P01A
Packing of polymer materials A11-C06
Packing, sealing compositions A12-R08 G04-B02
Pails A12-D04
Paint based on
acrylics A12-B01E G02-A02C
acrylics, containing aminoalkyl acrylates A12-B01E G02-A02C3
acrylics, containing epoxy A12-B01E G02-A02C1
acrylics, containing hydroxyalkyl acrylates A12-B01E G02-A02C2
addition polymer, other, vinyl halide polymer A12-B01F G02-A02D2
addition polymers, other G02-A02D
addition polymers, other, diene or polyene polymers A12-B01C G02-A02D1
addition polymers, other, unsaturated aromatic (styrenic) polymers A12-B01G G02-A02D4
addition polymers, other, vinyl ester or unsaturated acid polymer excluding acrylic A12-B01F A12-B01H G02-A02D3
alkyd resin G02-A02E
aminoplasts A12-B01J G02-A02F
emulsions A12-B01A
epoxy resins A12-B01L G02-A02G
inorganic film formers A12-B01C G02-A01+
inorganic polymer, silcone, or diene/polyene polymers A12-B01C
natural polymers A12-B01D G02-A02A
organic film formers G02-A02+
phenoplasts A12-B01J G02-A02F
polyesters A12-B01H G02-A02E
polymer (general) A12-B01+
polyurethanes A12-B01K G02-A02H
silicones A12-B01C G02-A01A
solvents A12-B01B
vinyl ester, or halogen containing addition polymers A12-B01F
water A12-B01A
Paint brushes A12-D03
Paint spray booths
cleaning/maintenance G02-A06A
Paint, based on
general addition polymers A12-B01W
general condensation polymers A12-B01X
Painting, general A11-B05+ G02-A06+
Paints A12-B+ G02-A+
additives G02-A03+
applied to cloth/felts A12-B02+
applied to glass/glass fibre A12-B05
applied to inorganic material A12-B08
applied to leather A12-B06
applied to metal A12-B04+
applied to others A12-B
applied to paper A12-B03
applied to polymer A12-B07+
applied to wood/cellulosics A12-B09
chemical removers A11-C07
general addition polymer A12-B01W
general condensation polymer A12-B01X
magnetic L03-B02H
pigments (organic) A08-E04 G02-A03A
powder forms A12-B01+ A12-S09
road, traffic signs A12-R G02-A05F
skin B12-M02 C12-M02
solvent based A12-B01B
water based A12-B01A
Palladium
alloys M26-B01
containing glass L01-A02B
electrodeposition M11-A05
production M25-G20
Palladium catalysts N02-F
element, not on C N02-F02
element, on C N02-F01
for polymerisation A02-A06+
Palladium compounds B05-A03B C05-A03B
carboxylate catalysts N02-F04
inorganic E35-X
inorganic salt catalysts N02-F03
organic E05-M E05-M02C
Palladium in glass composition L01-A02
Pallets A12-T
Pancakes D01-B02F
Pancreas treatment B14-N13 C14-N13
Pancreas, artificial D09-C01C
Pancreatic hormone B04-B02D2 C04-B02D2
Pancreatic hormone general B04-J03 C04-J03
Pancreatitis B14-N13
Pancreozymin B04-J13 C04-J13
Panels
decorative laminate A12-A04A
furniture A12-D01
of reinforced polymer A12-S08A
solar A12-R02B
wall, ceiling A12-R07
Panes, window A12-R04
Pans A12-D03
Pantographs L03-A01A4
Pants, baby A12-V03A D09-C03
Panty hose F04-C01 F04-C02
Papain B04-B02C3 B04-L05C C04-B02C3 C04-L05C
Papaverine B04-A04 C04-A04

Paper A12-W06+ B04-C02A C04-C02A F05-A+
addition of non-polymer F05-A06D
addition of polymer or resin A12-W06+ F05-A06C
coatings on A12-B03 F05-A06B G02-A05C
composition F05-A06+
composition, containing polymer A12-W06+ F05-A06C
cutting F05-A05
felts, use of fabric F04-E05A
felts, use of polymer A12-H04
manufacture A12-W06+ F05-A+
manufacture, fibreboard F05-A07
multiply F05-A06A
testing F05-A05

Paper making machine A12-H+ F05-A04+
accessories F05-A05
complete F05-A04D
dewatering F05-A04B
embossing equipment F05-A05B
forming equipment F05-A05B
head boxes F05-A04A
methods of producing paper F05-A04+
press and drier sections F05-A04C
stamping equipment F05-A05B
testing equipment F05-A05A
wet end, general F05-A04A

Paper making process
addition polymer in pulp (cellulosic) A12-W06B F05-A06C
cleaning/sterilisation of equipment F05-A04E
condensation polymer in pulp (cellulosic) A12-W06C F05-A06C
from non-cellulosic polymer A12-W06A F05-A06E
mechanical treatment of fibrous raw material F05-A01
methods F05-A04
natural polymer in cellulosic pulp A12-W06D
polymer use in, general A12-W06+ F05-A06C
pretreatment of digested material F05-A03
pulp after-treatment F05-A02B
pulp purification F05-A03
pulping F05-A02A
regeneration of pulp liquor F05-A02C
testing F05-A05A

PAPI condensant A01-E02

Papier-mache, manufacture of articles F05-A07

Parachutes F04-E02

Paraffin wax B04-B01C C04-B01C
lubricant A08-M03+

Paraffins (aliphatic hydrocarbon) B10-J02 C10-J02 E10-J02D

Parasite
microbial B04-F01 C04-F01

Parasympathetic blocker B12-E04 B14-J02B C12-E04 C14-J02B

Parasympathetic stimulant B12-E05 B14-J02A C12-E05 C14-J02A

Parasympatholytic B12-E04 B14-J02B C12-E04 C14-J02B

Parasympathomimetic B12-E05 B14-J02A C12-E05 C14-J02A

Parathyroid hormone B04-B02D3 B04-J04B C04-B02D3 C04-J04B

Paresis B12-E02 C12-E02

Parisons
(pre)heating of A11-A02B
blow moulding of A11-B10
glass, formation L01-E02

Parkinson's disease

Parkinson's disease treatment B12-C04 B14-J01A3 C12-C04 C14-J01A3

Partially hydrolysed ethylene-vinyl acetate copolymer A10-E09+
polyvinyl acetate A10-E09+

Particle accelerator, use of electro(in)organics L03-H04D

Particle board F05-A07
polymer use in A12-A04B

Particle engineering B11-C13 C11-C13

Particle counters
for neutrons K08-A01
for charged particles K08-A02
for gamma and cosmic rays K08-A03
for X-rays K08-A04

Particles E12-A08

Particles of polymers A12-S09+

Particulate forms E12-A08

Parylene ® A05-J13

Passivating and insulating layers for semiconductor devices L04-C12

Passivating layers, glass for semiconductor devices L04-C12D

Passivating layers, plastics for semiconductor devices A12-E07C L04-C12E

Passivation coating of metal M14-D
chromate layer M14-D03
oxide layer M14-D01
phosphate layer M14-D02
Passive deodorisation/disinfection D09-B01C

Pasta D01-B02E

Paste A12-S10 B12-M02 C12-M02
polymeric coating process A11-B05D

Pasteurising food D03-H02

Pastilles B12-M01 C12-M01

Pastry products D01-B02D

Patient compliance methods B11-C11A C11-C11A

Pathology (polymer use in) A12-V03C2

Pattern cards for (including design)
knitting machines F02-B01
looms F02-A02

Pattern control in
knitting F02-B01
weaving F02-A02

Pattern plates M22-C02

Patterning processes for printed circuits L03-H04E2

Patterns, foundry M22-C

Patterns, lost M22-C01

Paving compositions A12-R09

PBT A05-E04+
fibres F01-D04

PCTFE A04-E10D

PE A04-G02+

Peat B04-A07D1 B04-A09J C04-A07D1 C04-A09J H09-B

Pectin B04-C02D C04-C02D

Peek ® A05-J10

Pellet B12-M11D C12-M11D E12-A06

Pelleting J04-A05
of polymers A11-A04

Pellets as carriers for microorganisms D05-A03A

Pellicle design/manufacture L04-C06A1

Pelmets A12-R02

Pelt shearing machine D07-A

Pencil (lead) G02-A04
containing polymer A12-D05B
Pendant device B12-M10A5 C12-M10A5

Penicillins
6-acetamido other B02-P03 C02-P03
6-acetamido, alpha-substituted by N-atom B02-P02 C02-P02
general B02-P C02-P
Pens A12-D05B
Pentacene B08-B C08-B E08-B
1,3 Pentadiene E10-J02C
(co)polymers A04-B
monomer A01-C05
Pentaerythritol E10-E04H3
condensant A01-E14
tetraacrylate (co)polymers A04-A03
tetraacrylate monomer A01-B03
Pentane volatile blowing agent A08-B04B
Penton ® A05-H
Pepsin antagonist B12-G01B3 B14-D07C C12-G01B3 C14-D07C
Peptide hydrolases B04-L05C C04-L05C
Peptide nucleic acid B04-E10 C04-E10 D05-H12D9
Peptising agents for polymers A08-M08
Peracid, inorganic (general) B05-C08 C05-C08 E31-E
Perchlorinated polymers A10-E04A
Perchlorination A10-E04A
Perchlorovinyl polymer A10-E04A
Percutaneous B12-M02F C12-M02F
Perfluoroalkyl acrylate polymers A04-E10D
Perfluoroalkyl methacrylate polymers A04-E10D
Perforating polymers A11-A05A
Perfumes B12-L07 B14-R04 C12-L07 C14-R04 D10-A05
in air (masking) D09-B04
in cosmetics D08-B12
in detergents D11-B23
Perhalate (organic) B10-A02 C10-A02 E10-A02
Periodontal treatment B14-N06B C14-N06B
Peripheral vascular disorder treatment B14-F02F+ C14-F02F+
Perlon ® A05-F03
Permeability
property of polymer A09-A09
Permeability reducers A12-W10C
Permeable membranes A12-W11A J01-C03
for water treatment D04-A01D
Permucosal administration B12-M11F C12-M11F
Peroxidases B04-L03B C04-L03B
agonists B14-L01A1 C14-L01A1
inhibitors B14-D05B C14-D05B
Peroxide
catalysts N04-A
catalysts, polymerisation A02-A01
crosslinkers A08-C05 A08-D
redox catalyst for polymerisation A02-A03
Peroxide disinfectants (not of food or air) D09-A01A
Peroxide, inorganic (general) B05-C08 C05-C08 E31-E
Hydrogen peroxide E31-E01
Inorganc peroxide (general) E31-E05
Perborate E31-E04
Percarbonate E31-E02
Persulfate E31-E03
Peroxide, organic B10-A04 C10-A04 E10-A04B+
Peroxide, vulcanising agent (addition polymers) A08-C05
Peroxisome proliferator activated receptor B04-K01X1 C04-K01X1
Persalts - see also Peroxide
crosslinker A08-C05 A08-D
polymerisation catalyst A02-A01
redox catalyst for polymerisation A02-A03
Personal face/body wash D08-B09A2
Liquid D08-B09A2A
Solid D08-B09A2B
Personal care compositions D11-D01J
Personnel dosimeter K07-A01
Perspex ® A04-F06+
Persulphates - see also Peroxide
crosslinker A08-C05 A08-D
polymerisation catalyst A02-A01
redox catalyst for polymerisation A02-A03
Pesticide (general) B12-N01 B14-B01 C12-N01 C14-B01
antidote B12-J05D B14-M01E C12-J05D C14-M01E
use of polymers A12-W04C
PET A05-E04+
dyeing of F03-F07+
fibres, chemical features of F01-D04A
pH Monitoring J04-C02A
Petroleum
chemicals general A01-B04
coke H08-E02
fuel additives A12-T03B H06-D
liquid paraffin B04-B01C3 C04-B01C3
nuclear applications to K09-H
product, miscellaneous H08-E
resins A03-C04
resins, in polymeric blend A07-A01A
resins, production A10-A
Phage lambda B04-F11 C04-F11
Phage display libraries B11-C10D C11-C10D
Phagemids B04-E08 B04-F11 C04-E08 C04-F11
Phagocytosis treatment B12-D02 C12-D02
Pharmaceutical antidote general B14-M02 C14-M02
Pharmaceutical composition general B12-M05 C12-M05
machine for producing B11-C05 C11-C05
Pharmaceuticals A12-V01
Pharmacogenomics B12-Q01A C12-Q01A
Pharynx cancer B14-H01F C14-H01F
Phenanthrene B08-D02 C08-D02 E08-D02
Phenanthridine B06-D13 C06-D13 E06-D13
Phenanthroline B06-D15 C06-D15 E06-D15
Phenazine B06-D14 C06-D14 E06-D14
Phenol B10-E02 C10-E02 E10-E02B E10-E02B1 E10-E02E E10-E02E1
Phenol based
aldehyde resin (excluding formaldehyde) A05-C04
formaldehyde resin A05-C03+
ketone resin A05-C
terpene resin A05-J
Phenol blocking agent A02-C

Phenol, condensant A01-E13

Phenol, thio - see also Thiophenol B10-E01 C10-E01 E10-E01+

Phenolic
- compound removal from water D04-B06A
- condensants A01-E13
- crosslinkers for other polymers A08-D
- crosslinkers for unsaturated polymers A08-C09
- disinfectants (not food or air) D09-A01B
- fibres A05-C+ A12-S05+

Phenols, glycidyl ethers of A05-A02

Phenoplast A05-C+
- adhesives A12-A05D G03-B02E1
- coatings, paints, varnishes A12-B01J G02-A02F
- electrophotographic use A05-C01B2
- fibres A05-C+ A12-S05+
- fibres, chemical features of F01-D10
- foams A12-S03
- from monohydric phenol and aldehyde (excluding formaldehyde) A05-C04
- from monohydric phenol and formaldehyde A05-C03+
- from polyhydric phenol A05-C02
- in polymeric blends A07-A+
- photographic use A05-C01B2
- resins A05-C01+
- resins, compositions/ production A05-C01A
- resins, uses A05-C01B+
- specific others A05-C

Phenothiazine B06-F04 C06-F04 E06-F04

Phenoxazine B06-E04 C06-E04 E06-E04

Phenoxy resins A05-H06

Phenyl acrylate homopolymer A04-F06+

Phenyl amine condensant A01-E05

Phenyl methyl ketone
- crosslinker for other polymer A08-D
- crosslinker for unsaturated polymer A08-C
- photocatalyst for polymerisation A02-A09

Phenyl napthylamine antioxidant A08-A06

Phenylene diamines condensants A01-E05

Phenylene dichloride condensants A01-E

Phillips-type catalysts A02-A06+

Phlogistic B14-C05 C14-C05

Phosgene condensant A01-E12

Phosphate coating of metal by surface reaction M14-D02

Phosphate glass compositions L01-A07A

Phosphates plasticisers/ extenders A08-P05

Phosphates see also Phosphorus compounds

Phosphatides B04-B01B B05-B01P C04-B01B C05-B01P D03-F07

Phosphide ceramic L02-H03

Phosphodieseterases B04-L05A1 C04-L05A1

Phospholipids B04-B01B B05-B01P C04-B01B C05-B01P D03-F07

Phosphonitrile linear polymers A06-B

Phosphonitrilic halides condensants/monomer A01-A02

Phosphonium compounds
- aliphatic or alicyclic B05-B01G C05-B01G E05-G03A
- aromatic B05-B01F C05-B01F E05-G02
- heterocyclic B05-B01E C05-B01E E05-G01

Phosphorus (element) B05-B02A3 C05-B02A3
- production E31-K04
- use E31-K07

Phosphorus catalyst for polymerisation N04-B A02-A+

Phosphorus compounds
- inorganic B05-B02A C05-B02A E31-K
- inorganic, removal from water D04-B07B
- organic B05-B01 E05-G

Phosphorus containing
- condensant A01-A02
- cross-linker (including polymer) A08-C+ A08-D05
- detergent additive, inorganic D11-B21
- detergent additive, organic D11-B18
- flame retardant for polymers A08-F03
- flame retardant for textiles F03-C03A
- monomer A01-A02
- plasticiser (esters) A08-P05
- polymer A06-B

Phosphorus containing aliphatic (or alicyclic) compounds
- with P-C bond B05-B01G C05-B01G E05-G03
- with P-halogen bond B05-B01H C05-B01H E05-G03A
- with P-N bond B05-B01L C05-B01L E05-G06
- with P-O (or S) bond B05-B01P C05-B01P E05-G09

Phosphorus containing aromatic compounds
- with P-C bond B05-B01F C05-B01F E05-G02
- with P-halogen bond B05-B01H C05-B01H
- with P-N bond B05-B01K C05-B01K E05-G05
- with P-O (or S) bond B05-B01N C05-B01N E05-G08

Phosphorus containing heterocyclic compounds
- with P-C bond B05-B01E C05-B01E E05-G01
- with P-halogen bond B05-B01H C05-B01H
- with P-N bond B05-B01J C05-B01J E05-G04
- with P-O (or S) bond B05-B01M C05-B01M E05-G07

Phosphorus incorporated/ incorporation by polymer modification A10-E20

Phosphorus oxide B05-B02A3 C05-B02A3
- production E31-K04
- use (excluding catalysts) E31-K07
- use in catalysts E31-K01

Phosphorylation A10-E20

Photocatalysts J04-E04B
- for polymerisation A02-A09

Photocatalytic apparatus J04-E09C

Photochemical process B11-C01 C11-C01 E11-P

Photochromic dye E26
- precursor E26-B

Photochromic materials G04-A01 L03-G09R

Photoconductive polymer for electrophotography A12-L05B G06-F03A

Photoconductors L04-E05B
- polymeric A12-L05B G06-F03A

Photoconductors for radiation sensitive system G06-F+
inorganic G06-F07+
inorganic, containing zinc oxide or selenium G06-F07A
organic G06-F06
polymer G06-F03A
Photocopying, electrostatic A12-L05+
Photocrosslinking A11-C02B
Photodevelopable material for photosensitive system G06-C07
Photodiodes A12-E11A
Photoelectric cells A12-E11B
Photoelectric elements (production) G06-D06
Photoelectric materials L03-G09J
Photographic
agent (miscellaneous) G06-H+
apparatus A12-L02A
binder A12-L01
A12-L05D
equipment A12-L02A
film support A12-L01
material A12-L02+
material, composition for electrical device A12-L02B2
material, composition for printing plate A12-L02B1
material, compositions containing other photosensitive polymer A12-L02E
material, compositions containing unsaturated monomer A12-L02C
material, compositions containing unsaturated polymers A12-L02D
process, general A12-L02+
process, general, apparatus (including lenses) A12-L02A
support A12-L01
G06-B+
Photographic use of (meth)acrylamide (co)polymers A04-D04A1
A12-L+
(meth)acrylate (co)polymers A04-F06E4
A12-L+
phenoplasts, general A05-C01B2
A12-L+
polyamides A05-F01E3
A12-L+
polyethylene A04-G02E3
A12-L+
polypropylene A04-G03E1
A12-L+
PVA A10-E09B2
A12-L+
silicones A06-A00E4
A12-L+
Photographically active materials released on processing, excluding dyes G06-C15
Photography A12-L+
nuclear applications to K09-G
Photography, special techniques G06-E+
Photohardening A11-C02B
Photoinitiators
catalysts for polymerisation A02-A09
crosslinkers for other polymers A08-D+
crosslinkers for unsaturated polymers A08-C+
Photomasking
opto-electronics G06-D06B
printed circuits G06-D06A
G06-E02
L03-H04E2
semiconductor G06-D06A
G06-E02
L03-H04E2
Photopolymerisation of addition (co)polymers A10-B06
Photoresists G06-D04
printing G05-B
Photoresists (polymer use) A12-L02+
Photoresists materials L03-G09P
for printed circuit boards L03-H04E2
for semiconductor L04-C05
Photosensitive materials A12-L02+
microencapsulated G06-C16
Photosensitive polymer for radiation sensitive system A12-L02+
G06-F03+
additives for (e.g. photosensitisers) G06-F03D
light sensitive composition containing monomer G06-F03B
light sensitive polymer containing compositions G06-F03C
polymeric photoconductors G06-F03A
resin system development G06-G17
system (type) G06-C+
Phototransistors L04-E01G
Photovoltaic devices, photoelectric cells but see L03-E05 for solar cells L04-E05D
Phthalate plasticisers A08-P02
Phthalate, cellulose A03-A03
B04-C02A3
C04-C02A3
Phthalates, diallyl (co)polymers A04-B09
monomer A01-C01
Phthalazine B06-D06
C06-D06
E06-D06
Phthalethrin B04-A07C
C04-A07C
Phthalic (iso-, ortho- and tere-) condensant A01-E11
Phthalic acid B10-C02
C10-C02
E10-C02C
E10-C02C1B
E10-C02C2B
condensant A01-E11
Phthalic anhydride E06-A02
condensant A01-E11
Phthalic condensants A01-E11
Phthalimides, vinyl (co)polymers A04-D08
monomer A01-D01
Phthalocyanine dye E23
water insoluble E23-B
water soluble E23-A
water soluble, non-reactive E23-A02
water soluble, reactive E23-A01
Phylloquinone B03-J
C03-J
Physical process (general) E11-R
Physical properties, testing A09-C
Physical treatment of pigment/filler G01-B01
Physical treatment of pigment/filler G01-B01
Physical vapour deposition
of ceramics L02-A02B
of metal M13-F
Physiological amelioration of potable water by specific additives D04-A04
Physiological response in animals or plants test B11-C08E2
C11-C08E2
Phytohormone B12-P04
C12-P04
C14-U01C
Pi bonded complex catalyst N05-B
Picene B08-B
C08-B
E08-B
Pickling foods D03-H02D
Pickling metal with solutions or molten salts M12-A
apparatus M12-A04
disposal/regeneration M12-A03
processes M12-A05
solutions/salt mixtures M12-A01
solutions/salt mixtures, inhibitors for M12-A02
Picture frame A12-D
Piezochromic dye (general) E26
Piezoelectric
ceramic oxides L02-G07B
compositons A12-E15
devices A12-E15
L03-G10
material L03-G09A
polymer use A12-E15
transducers L03-G10A
Pig casting M22-G01
Pig iron production by processing iron M24-B01A
Pig production, blast furnace M24-A02
by applying additives M24-A02A
making slags of special composition M24-A02B
Pigmenting A11-A01+

Pigments A08-E+
ceramic L02-G04
compositions containing polymer A12-W11H
for dyeing/printing fibres F03-F17
formulations E27-A01
inorganic A08-E02 G01-A+
magnetic L03-B05D1
morphology of E27-B01
organic A08-E04 E21 E22 E23 E24 E25
organic, for ink, crayons G02-A04B
organic, for paint G02-A03A
polymeric, for ink A12-W07E
treatment of G01-B+

Pile
cutting (fabrics) F03-A
fabrics A12-S05J

Pile fabrics A12-S05J F02-G03

Piles treatment B12-J04 B14-E04 C12-J04 C14-E04

Pill resistant fabric treatment
non-resinous A12-S05R F03-C04
resinous A12-G02 F03-C04

Pilling prevention in fabrics F03-C04

Pillows A12-D01 F04-D01

Pills A12-V01 B12-M11 C12-M11

Pilo erecting B12-L05 B14-R02 C12-L05 C14-R02

Pipeline
accessories H03-B03
control J06-C02
fluid loss additive H03-B01
installing H03-B02
repair H03-B04
system J06-C01
testing H03-B03
transporting oil or gas H03-B

Piperazine B07-D11 C07-D11 E07-D11
condensant A01-E05

Piperidine B07-D05 C07-D05 E07-D05
condensant A01-E05

Piperylene E10-J02C
(co)polymers A04-B
monomer A01-C05

Pipes - see also Hoses A12-H02+
fittings A12-H02C
forming A11-B08C
lining process A11-B09A
lining product A12-H02D
mill (metal rolling) M21-A03

Piscicide B12-N05 B14-B11 C12-N05 C14-B11

Piston rings A12-H08

Pitch A03-C03
in polymeric blend A07-A01A

Pitches, sports A12-F01A

Pituitary gland hormones B04-B02D4 B04-J05 C04-B02D4 C04-J05

Pizza bases D01-B02D

Placenta extract B04-B04H C04-B04H

Plaiting of fibres F02-E01

Planes A12-T+

Planographic printing plate A12-W07+ G05-A01

Plant extract general E04-A

Plant or vessel scale, prevention of A10-G02

Plant pots A12-W04A

Plant repellents (additive for polymer) A08-M02

Plants
angiosperms B04-A08C2 C04-A08C2
antibodies to B04-G10 C04-G10
bryophytes B04-A08A C04-A08A
cells B04-B04A2 B04-F08 C04-B04A2 C04-F08
extract general B04-A07F C04-A07F
extracts general and other B04-A10 C04-A10
growth regulant (general) B12-P01 C12-P01
growth regulants C14-U01
gymnosperms B04-A08C1 C04-A08C1
polysaccharides B04-C02D C04-C02D
preservation D09-A03B
produced by tissue culture B04-A07D5 B04-A08 C04-A07D5 C04-A08
protection from poisons B12-J05E B14-M01F C12-J05E C14-M01F
protein B04-B04A4 B04-N01 C04-B04A4 C04-N01
pteridophytes B04-A08B C04-A08B
sap B04-A07D4 B04-A09H C04-A07D4 C04-A09H
stems B04-A07D4 B04-A09H C04-A07D4 C04-A09H
whole B04-A07D5 C04-A07D5
whole plants general and other B04-A08 C04-A08
whole tobacco B04-A08C2 C04-A08C2

Plasma
arc welding or cutting M23-D01
containment (fusion reactors) K05-A03A
deposition (or ion) for semiconductor processing apparatus L04-D04
deposition in semiconductor layer growth L04-C01B
semiconductor layer growth apparatus L04-D04B
etching of semiconductors L04-C07D
polymerisation A10-B
reactors J04-X01
spraying (flame) refractory or ceramic L02-A06
spraying metal M13-C
techniques K08-F
techniques, application of electro(in)organic materials L03-H04D
treatment of polymer surfaces A11-C04E

Plasma (blood)
substitute B12-H06 B14-F11 C12-H06 C14-F11

Plasmids B04-E08 C04-E08

Plasmin B04-B02C3 B04-L05C C04-B02C3 C04-L05C

Plasminogen B04-B02C B04-L05C C04-B02C C04-L05C

Plasminogen activator B04-H15 C04-H15

Plaster (building) L02-D01
board A12-R01A L02-D07

Plaster (medical) A12-V03A B12-M02 C12-M02 D09-C04A
casts A12-V03A
dental D08-A06
sticking B12-M02D C12-M02D

Plastic coatings on glass sheet A12-B05 L01-G04B

Plastic mixing A11-A03+
Plasticisation A11-A03+
Plasticisers A08-P+
  coal tar fractions A08-P08
  concrete additive L02-D14E
  epoxy compound A08-P07
  ester, aliphatic, (excluding hydroxy acid) A08-P04
  ester, aromatic, (excluding phthalate) A08-P03
  ester, hydroxy acid A08-P06
  ester, inorganic A08-P05
  ester, Phosphorus containing A08-P05
  oils A08-P08
  photographic G06-H15
  phthalate A08-P02
  waxes A08-P08
Plastics
  ceramic composite L02-J02B
  coating on glass A12-B05 L01-G04
  coating on metal A12-B04+ M13-H05
  nuclear applications A12-W11C K09-A
  passivating layers for semiconductor devices A12-E07C L04-C12E
  storage A11-C06
  substrates for printed circuits A12-E07A L03-H04E1
Plastification A11-A03+
Plastisol A12-S10
Platelets B04-F13 C04-F13
Platens, flat, pressing between A11-B13
Plates
  magnetic recording L03-B05B
  printing A12-W07+
  tableware A12-D03
Plating - see also Chemical plating, Electrodeposition and Non-Electrolytic deposition/coatings
Plating bath additives A12-W12E
Plating of polymers with metal A11-C04B1
Platinum
  alloys M26-B01
  containing glass L01-A02B
  electrodeposition M11-A05
  in glass composition L01-A02
  production M25-G20
Platinum catalysts N02-F
  carboxylate N02-F04
  element, not on C N02-F02
  element, on C N02-F01
  inorganic salts N02-F05
Platinum compounds B05-A03B3 C05-A03B3
  inorganic E35-X
  organic E05-N E05-N02C
Pleating of fabrics F03-A01
Plexifilaments F01-E02
Plexiglas ® A04-F06
Plugging, well (polymer use) A12-W10C
Plumbic, plumbous compounds - see Lead
Plutonium compounds B05-A04 C05-A04
  inorganic E35-R
  organic E05-Q
Plying of yarns, fibres F01-H01
Plywood A12-A04C F05-B
PMMA A04-F06+
Pneumatic laying of non- woven fabrics F02-C02+
Pneumatic tyres A12-T01+
Poisoning by heavy metal treatment B12-J05C B14-M01D C12-J05C C14-M01D
Polarisers for liquid crystal displays L03-G05B7B
Polarity, optical A09-A02A
Polarography testing B11-C08B C11-C08B
Polaroid ® - type development G06-E03
Polishing
  glass L01-G06
  metal, electrolytic M11-H02
  metal, non-electrolytic M14-B
  polymer A11-C04
Polishing composition (excluding French) A12-B01+ G02-C
  abrasive A12-A03 G04-B04 L02-F
  French G02-B05
Pollen B04-A09C C04-A09C
  extracts B04-A10D C04-A10D
Pollution control
  marine oil H03-G01
  oil D04-B
  processes A11-C07
  refineries H05-L
  relative to use of fuels H06-C
  Soil contamination H03-G02
  storage and transport H03-G
  use of polymer A12-W11+
  using coagulants A12-W11E
  using coagulants, for water D04-A01B
  using flocculants A12-W11E
  using flocculants, for water D04-A01B
  using poly-electrolytes A12-W11E
  water treatment A12-W11J
Polonium catalysts N03-H
Polonium compounds B05-A04 C05-A04
  inorganic E35-R
  organic E05-Q
Poly (4-vinyl-N-butylpyridinium bromide) (modified polymer) A10-E19
Poly (chloromethyl substituted styrene) quaternised using tertiary amine A10-E19
Poly(1,3- imidazolidine dione-2, 4,5-trione) A05-J02
Poly(2,6-dimethyl-1,4-phenylene oxide) A05-H07A
Poly(4-methylpentene- 1) (co)polymers A04-G10
Poly(alkyl vinyl ketones) A04-F03
Poly(meth)acrylates in polymeric blends A07-A+
Poly(N-methylol-methacrylamide) A04-D04+
Poly-p-xylylene resin A05-J13
Polyacetal resin A05-H02+
  production, composition A05-H02A
Polyacrolein A04-F02
Polyacrylamide - see also Acrylamide, polymer A04-D04+
Polyacrylate polymer paint A12-B01E G02-A02C+
Polyacrylic acid or anhydride - see also Acrylic acid or anhydride polymer A04-F04+
Polyacrylic ester - see also Acrylate, alkyl polymer A04-F06+
Polyacrylonitrile - see also Acrylonitrile, polymer A04-D02+
Polyacryloyl chloride A04-E
Polyalkenamers A04-G
Polyalkylene oxide detergents A05-H+ A12-W12+ D11-A03A
Polyalkyleneimines A05-J07
Polyallomer A04-G06+
Polyallyl (2 double bonds) sucrose A04-A03
Polyallyl alcohol A04-F
Polyamic acid A05-J01+
Polyamide imides A05-F A05-J01+
Polyamideester A05-E07
Polyamides (nylons) A05-F+ B04-C03D C04-C03D
  aromatic A05-F05
  as cross-linkers A08-C08 A08-D04
  fabrication A05-F01C
  fibre filler A05-F+ A08-R08A
  fibres, chemical features in production A05-F+ F01-D03
  fibres, dyeing/printing A12-S05N F03-F06+
  in polymeric blends A07-A+

preparation from dimerised fatty acid and diethylenetriamine A05-F04
tyre cord A05-F01E
A12-T01C
F04-E01

Polyamine, with aromatic amino B10-B01A
C10-B01A
E10-B01A

Polyamine, without aromatic amino B10-B01B
C10-B01B
E10-B01B
E10-B01E
with carboxy deriv E10-B01C+
with Hydroxy, ether E10-B01D
with Mercapto(ether) E10-B01D

Polyamine- polymaleimide polymers A05-J11

Polyaminoamide (Versamid) A05-F04

Polyaminoamides from polymerised vegetable oil acids and polyamines A05-F04

Polyaminobismaleimide A05-J11

Polyammonium methacrylate A04-D09

Polyanhydride A05-J03

Polyarylate A05-E10

Polyarylene ethers A05-H07A

Polyarylene sulphides A05-J05A

Polybasic (acid) condensant
(cyclo)aliphatic A01-E12
aromatic A01-E11

Polybenzimidazo- pyrrolones A05-J02

Polybenzimidazoles A05-J02

Polybenzobisthiazole A05-J02

Polybenzothiazole A05-J02

Polybenzothiazolene A05-J02

Polybenzoxazoles A05-J02

Polybenzyl acrylate A04-F06+

Polybisbenzimidazo-benzophenanthroline A05-J02

Polyblends A07-A+

Polybrene A05-J09

Polybromobutyl acrylate A04-E

Polybutadiene A04-B02+

Polybutadiene diol and isocyanate based polyurethane A05-G

Polybutadiene in polymeric blends A07-A+

Polybutadiene, production A04-B02A

Polybutene-1 A04-G04

Polybutene-2 A04-G

Polybutenyl succinimide A10-E03

Polybutylene terephthalate (PBT) A05-E04+
dyeing of F03-F07+
fibres, chemical features of F01-D04

Polycaprolactam A05-F03

Polycaprolactone polyol polyurethane A05-G02

Polycapryllactam A05-F03

Polycarbamates A05-G+

Polycarbodiimides A05-J09

Polycarbonates A05-E06+
compositions A05-E06A
fibres, chemical features of F01-D04
fibres, chemical features of, dyeing of A12-S05N
F03-F07+
in polymer blends A07-A+
printing of A12-S05Q
F03-F07+
production A05-E06A
uses A05-E06B

Polycarboranes A06-C

Polycarboxy methylene A04-A03
A04-F04+

Polycarboxylic acid B10-C02
C10-C02
E10-C02

Polycarboxylic condensants
(cyclo)aliphatic A01-E12
aromatic A01-E11

Polychloroalkane E10-H02H
E10-H03C4
E10-H04C4

Polychloroalkene E10-H02G
E10-H03C3
E10-H04C3

Polychloroalkyne E10-H02G
E10-H03C3
E10-H04C3

Polychloroprene A04-B08

Polychlorotrifluoro-ethylene A04-E10D

Polyclonal Antibodies D05-H11B

Polycondensation A10-D+
apparatus and equipment A10-D04
electrolytic/exidative A10-D06
esterification A10-D05
interfacial A10-D01
ordered A10-D02
ring-closure, ring-opening A10-D03

Polycrystalline layers in semiconductor processing see also L4-C10B L03-C04

Polycyanide (organic) B10-A15
C10-A15
E10-A15A

Polycyanurates from dicyanates A05-J02

Polycyclic quinone dye E22-E

Polycyclohexyl methacrylate A04-F06+

Polydiallyldimethyl ammonium chloride A04-B12

Polydiene polyol polyurethanes A05-G

Polydiolefins in polymeric blends A07-A+

Polydodecamethylene dodecane-dioic amide A05-F02

Polydodecanolactam A05-F03

Polyelectrolytes A12-M+
acrylic A12-M01
others A12-M02

Polyenantholactam A05-F03

Polyene
dye E25-B
polymer coatings A12-B01C
G02-A02D1
polythiol polymers A05-J05

Polyepichlorohydrin A05-H04

Polyepihalohydrins A05-H04

Polyepisulphides A05-J05

Polyepoxides A05-A+
cycloaliphatic A05-A05

Polyesteramides A05-E07
fibres, chemical features of F01-D03
F01-D04

Polyesterether A05-E09
from poly (tetramethylene ether) glycol, dimethyl isophthalate and ethylene glycol A05-E03
A05-E09
A05-H05

Polyesterification A10-D05

Polyesterification modification A10-E07+

Polyesterimides A05-E07
A05-J01+

Polyesterpolyol and isocyanate based polyurethanes A05-G02

Polyesters - see also Polyester saturated, and Polyesters, unsaturated
adhesives/binders A12-A05E
G03-B02E3
coatings/paints A12-B01H
G02-A02E+
fibres, chemical features in production F01-D04
fibres, dyeing A12-S05N
F03-F07+
fibres, printing A12-S05Q
F03-F07+
non-linear (alkyd resin) polyol based polyurethane A05-E08
A05-G02

Polyesters, saturated A05-E+
based on aliphatic acid A05-E02
based on aromatic acid (excluding iso and terephthalic acids) A05-E05
based on Hydroxyacids A05-E02B
based on isophthalic acid A05-E03
based on lactones or glycolides A05-E02C
based on saturated (cyclo)aliphatic, dicarboxylic acids and dihydric alcohols or phenols A05-E02A
based on terephthalic acid A05-E04+
based on terephthalic acid, application A05-E04E
based on terephthalic acid, compounding A05-E04B
based on terephthalic acid, fabrication A05-E04C
based on terephthalic

acid, production A05-E04A
based on terephthalic acid, treatment A05-E04D
composition A05-E01A2
production A05-E01A1
textiles, textile treatment A05-E01B+
textiles, textile treatment, chemical treatment A05-E01B2
textiles, textile treatment, mechanical treatment A05-E01B1
textiles, textile treatment, uses A05-E01B3

Polyesters, unsaturated A05-D02+
application A05-D02E+
application, building components, laminates A05-D02E1
compounding A05-D02B
fabrication A05-D02C
production A05-D02A
treatment A05-D02D

Polyesterurethanes A05-G02
foams A12-S02+

Polyetheresters A05-E09
fibres, chemical features of F01-D04
F01-D10

Polyetherketones A05-J10

Polyetherpolyol and isocyanate based polyurethane A05-G03

Polyethers A05-H+
B04-C03C
C04-C03C
based on dihydric phenol A05-H06
based on ethylene oxide A05-H03+
based on ethylene oxide, composition A05-H03A
based on ethylene oxide, production A05-H03A
based on furan A05-H05
foam A12-S02D
in polymeric blends A07-A+
polyether polyol based polyurethane A05-G03
propylene oxide based (including epihalohydrins) A05-H04

Polyethersulphones A05-J06

Polyetherurethanes A05-G03
foams A12-S02D

Polyethylene - see also Ethylene, polymer B04-C03B
C04-C03B
fibres, chemical features of F01-D05
fibres, dyeing/printing F03-F08
homopolymer A04-G02+

Polyethylene glycol A05-H03
Production A05-H03A1
Composition A05-H03A3

Polyethylene imine A05-J07

Polyethylene naphthalate A05-E05A

Polyethylene oxide A05-H03+
Homopolymer Production A05-H03A1
Homopolymer Composition A05-H03A3
Copolymer Production A05-H03A2
Copolymer Compostion A05-H03A4

Polyethylene terephthalate - see also Polyester, saturated, based on terephthalic acid A05-E04+
chemical features of fibres F01-D04A
dyeing of fibres A12-S05N
F03-F07+

Polyethylene terephthalate isophthalate A05-E03
A05-E04+

Polyfluoroacrylates A04-E10D

Polyformaldehyde A05-H02+

Polyfunctional stabilisers A08-A01+

Polygermanates (polymerisation product) A06-D

Polyglutamic acid A05-F03

Polyglycerol A05-H

Polyglycerol polyether A05-H

Polyglycidyl compounds - see also Epoxy resins A05-A+

Polyglycidyl isocyanurate A05-A04

Polyhexafluoro- propylene A04-E10D

Polyhexamethylene adipamide A05-F02
caprolactam cocondensate (nylon 6:6/6) A05-F02
A05-F03
hexamethylene azelaiamide cocondensate (nylon 6:6/6:9) A05-F02
hexamethylene azelaimide- caprolactam cocondensate (nylon 6:6/6:9/6) A05-F02
A05-F03
hexamethylene isophthalamide cocondensate (nylon 6:6/6iP) A05-F
A05-F02
hexamethylene sebacamide-caprolactam cocondensate (nylon 6:6/6:10/6) A05-F02
A05-F03
hexamethylene terephthalamide cocondensate (nylon 6:6/6T) A05-F
A05-F02

Polyhexamethylene azelaiamide A05-F02

Polyhexamethylene dodecanedioic amide A05-F02

Polyhexamethylene isophthalamide A05-F

Polyhexamethylene sebacamide A05-F02

Polyhexamethylene terephthalamide A05-F

Polyhexene-1 A04-G

Polyhexyl acrylate A04-F06+

Polyhydantoin A05-J02

Polyhydrazides A05-J09

Polyhydric alcohol acrylic esters A04-F06+

Polyhydric alcohol condensants A01-E14

Polyhydric phenol condensants A01-E13

Polyhydric phenols-aldehyde resins A05-C02

Polyimides A05-J01+

Polyimines A05-J11

Polyindene A04-C

Polyisobutene A04-G05

Polyisobutenyl succinimide A10-E03

Polyisobutylene A04-G05+

Polyisocyanates condensants A01-E02
crosslinkers A08-C09A
A08-D04A

Polyisocyanurates A05-J02

Polyisomaltose B04-C02
C04-C02

Polyisoprene (co)polymers, butyl rubber A04-G05A
copolymers A04-B07
homopolymer A04-B06

Polyitaconic acid A04-F05

Polyketones including polyether-ketones A05-J10

Polylauryllactam A05-F03

Polymaleic acid/anhydride (co)polymer A04-F05

Polymaleimide- polyamine polymers A05-J11

Polymer coatings on metal
general A12-B04+
preparation of compositions; resinous metal treatment A12-B04B
using acrylic resins A12-B04D
using natural, inorgnanic or condensation resin A12-B04C
using other addition polymer(s) A12-B04F
using vinyl ester or halogen addition polymer A12-B04E

Polymer coatings on polymer (use)
general A12-B07+
on films (optionally laminated) A12-B07A
A12-S06C+
on foams A12-B07B
on tubes, cables or other profiles A12-B07C

Polymer use
Adsorption A12-W11D

Polymerase
agonists B14-L01A2
C14-L01A2
inhibitors B14-D06A
C14-D06A

Polymeric A08-M03
adhesion promoter for polymers A08-M01B
animal repellent compounds A08-M02
antiseptic compounds A08-M02
conductors, electrical L03-A02D
cross-linking/curing agents A08-C08
A08-D+
dye or precursor E24-B
dyeing aids A08-M01A

fibrous filler for polymers A08-R08A
fillers A08-R08+
fungicidal compounds A08-M02
halogen containing flame retardants A08-F04A
impregnants and coatings for concrete L02-D14M
impregnants and coatings for concrete A12-R01A
paper, synthetic A12-W06+ F05-A06+
particulate filler for polymers A08-R08B
reinforcing agents A08-R08+
supports for magnetic recording A12-E08A+ L03-B05L1

Polymerisation B11-C01 C11-C01
controllers A02+
controllers, catalysts A02-A+
controllers, chain transfer agents A02-B
controllers, inhibitors A02-C
controllers, modifiers A02-B
controllers, regulators A02-B
equipment A10-B01 A10-D04
equipment, cleaning A10-G
equipment, scale prevention/ reduction A10-G02
natural polymer production A10-A
process, addition A10-B+
process, condensation A10-D+
process, gasoline preparation H04-D01
process, ordered A10-C+

Polymerisation catalysts A02-A+
Alfin A02-A05
alkali(ne earth) metal containing organic compound A02-A07B
azo A02-A02
biocatalyst A02-A12
enzyme A02-A12
free radical A02-A03
Friedel-Craft A02-A04
inhibitors A02-C
metallic (non-transition metal) A02-A07+
organoaluminium compound (not with transition metal/compound) A02-A07C
organoaluminium compound + transition metal/compound A02-A06+ A02-A06C A02-A07A
organometallic (non-transition metal) A02-A07+
P containing (excluding with transition metal/ compound) A02-A11
peroxide A02-A01
persalt A02-A01
redox A02-A03
support A02-D
transition metal (compound) A02-A06+
transition metal halide or oxyhalide A02-A06B
transition metal oxide A02-A06A
Ziegler (general) A02-A06+
Ziegler (halide containing) A02-A06B

Polymerised
drying oils A03-C
vegetable oil acids and polyamine based polyamides A05-F04

Polymerising
condensant during coating A11-B05C
monomer during coating A11-B05C

Polymers A11-C07
removal from water D04-B06D

Polymers general (excluding polypeptide and polysaccharide) A01 B04-C03 C04-C03
addition in paper manufacture A12-W06+ F05-A06C
additives for concrete A12-R01A L02-D14F
additives for polymers A08+
analysis of A09-B
blends/mixtures A07-A+
bonded to antigen or antibody B11-C07A6 C11-C07A6
bonded to enzyme A12-W11L D05-A01A2
bonded to non-woven fabrics A12-B02B
carriers for microorganis D05-A03A
carriers for microorganisms A12-W11L
detergent additive D11-B19
detergent additive, for fibres A12-W12A
detergent additive, for others A12-W12B
filled with non-metallic conductors L03-A02E
film laminates A12-S06C
in paper A12-W06+ F05-A06C
natural A03+ B04-C03D C04-C03D
of metal containing compound (including Boron, Phosphorus, Silicon) as crosslinkers A08-C08 A08-D05
pigment/filler treatment with G01-B03
removal from water A11-C07 D04-B06
sheet laminates A12-S07A
testing of A09-C

Polymers, proteinaceous A03-C01

Polymetaxylylene adipamide A05-F02

Polymethacrolein A04-F02

Polymethacrolyoyl chloride A04-E

Polymethacrylamide - see also Acrylamide, polymer A04-D04+

Polymethacrylic acid A04-F04+

Polymethacrylic anhydride A04-F04+

Polymethacrylic ester A04-F06+

Polymethacrylonitrile A04-D02+

Polymethyl isopropenyl ketone (co)polymer A04-F03

Polymethyl methacrylate (PMMA) A04-F06+

Polymethyl vinyl ketone A04-F03

Polymethylene polyphenylene polyisocyanate condensant A01-E02

Polymyxin B02-P01 C02-P01

Polynaphthenate polymers A05-E05A

Polynonanolactam A05-F03

Polynorbornene (rubber) A04-G

Polynosic fibres
chemical features F01-D06
dyeing/printing F03-F09

Polynuclear mono- or poly hydric phenols condensants A01-E13

Polyoctene-1 (co)polymers A04-G

Polyol condensants A01-E14

Polyolefins A04-G+ B04-C03B C04-C03B
adhesive/binder (based on) A12-A05B2 G03-B02D3
fibres dyeing/printing A12-S05P F03-F08
fibres, chemical features in production F01-D05
foaming processes A12-S04A1
foams (compositions) A12-S04A2
in polymeric blends A07-A+
stabilisers for A08-A01A1

Polyoxadiazoles A05-J02

Polyoxazoli(di)nes A05-J02

Polyoxazolidones A05-J02
from diglyidyl ether of bisphenol A and polyisocyanate A05-A02 A05-J02

Polyoxyethylene copolymers A05-H03+
Production A05-H03A2
Composition A05-H03A4

Polyoxyethylene homopolymers A05-H03+
Production A05-H03A1
Composition A05-H03A3

Polyoxymethylene (co)polymers A05-H02+

Polyoxypropylene copolymers A05-H04+
Production A05-H04A2
Composition A05-H04A4

Polyoxypropylene homopolymers A05-H04+
Production A05-H04A1
Composition A05-H04A3

Polyparabanic acid A05-J02

Polyparaxylylene A05-J13

Polyparaxylylene dodecanedioic amide A05-F02
Polypeptides A03-C01 B04-C01 C04-C01
modified/cyclic B04-C01H C04-C01H
animal B04-N02 C04-N02
from microorganisms B04-N03 C04-N03
bacterial B04-N03C B04-N03D C04-N03C C04-N03D
fungal B04-N03G B04-N03H C04-N03G C04-N03H
viral B04-N03E B04-N03F C04-N03E C04-N03F
plant B04-N01 C04-N01
polypeptide general B04-N04 C04-N04
production by fermentation A10-A D05-C11
Polyperfluoroalkyl acrylate A04-E10D
Polyperfluoroalkyl methacrylate A04-E10D
Polyphenol - see Phenol
Polyphenyl acrylate A04-F06+
Polyphenylene oxide-styrene polymer blends ("Alloys") A04-C+ A05-H07A A07-A04E
Polyphenylene oxides/ethers A05-H07A
Polyphenylene sulphide A05-J05A
Polyphosphate, inorganic - see Phosphorus compounds, inorganic
Polyphosphazene A06-B
Polyphthalocyanine A05-J02
Polypropylene A04-G03+ B04-C03B C04-C03B
application A04-G03E
application, for packaging, medical, home, photographic, film A04-G03E1
compounding A04-G03B
fabrication A04-G03C
fibres
fibres, chemical features of F01-D05
fibres, dyeing/printing F03-F08
production A04-G03A
treatment A04-G03D
Polypropylene oxides/glycols A05-H04+
Polypyromellitimides from pyromellitic condensant and diamines A05-J01+
Polypyrroles polypyrroles A05-J12
Polypyrrolidone A05-F03
Polyquaternary ammonium compounds B10-A21 C10-A21 E10-A21
Polyquinazolone A05-J02
Polyquinoxaline A05-J02
Polysaccharides A03-A+ B04-C02 C04-C02
bisynthesis D05-C08
bound to enzyme D05-A01A1
general A03-A01+
other non-cellulosics (not specified elsewhere) A03-A+
textiles A03-A01A
Polysilazanes A06-A+
Polysilicon layers on semiconductor circuits L04-C10B
Polysiloxanes (including polysilazanes) A06-A+
applications A06-A00E+
applications, adhesives, coatings, textile treatment A06-A00E1
applications, in engineering A06-A00E2
applications, medical, dental, cosmetic, veterinary A06-A00E3
applications, photographic, printing, optical A06-A00E4
compounding A06-A00B
fabrication A06-A00C
production A06-A00A
treatment A06-A00D
Polysodium acrylate A04-F04+
Polystyrene A04-C02+
applications A04-C02E
chloromethylated and quaternised using
tertiary amine A10-E03 A10-E19
compounding A04-C02B
expanded, foams A12-S01+
fabrication A04-C02C
foam, composition or process A12-S01A
production A04-C02A
treatment A04-C02D
Polysulphides, organic B10-A04 C10-A04 E10-A04
polymer A05-J05+
Polysulphone A05-J06
Polysulphonamides A05-F
Polyterpenes A03-C
Polytetrafluoro- ethylene A04-E08+
application to engineering A04-E08B
compositions, production A04-E08A
Polytetrahydrofuran A05-H05
Polytetrahydrofuran based polyurethane A05-G03
Polythene see also Polyethylene A04-G02+
Polythiocarbonates A05-E06+
Polythiodiethanol A05-H
Polythioethers A05-J05+
Polythiol-polyene resins A05-J05
Polythiophenes A05-J12
Polythiourea A05-J04
Polythiourethanes A05-G
Polytitanates (polymerisation product) A06-D
Polytriazoles A05-J02
Polytrimethyl dihydroquinoline A04-D08
Polyundecanolactam A05-F03
Polyunsaturated compound, monomer A01-B03 A01-C+
Polyunsaturated compound, polymer A04-A03 A04-B+
Polyurea A05-J04
adhesives A12-A05F G03-B02E4
Polyurethane polyurea A05-G+ A05-J04
Polyurethanes A05-G+
applications A05-G01E+
applications, adhesives A12-A05F G03-B02E4
applications, artificial leather A12-B02A F04-B01A
applications, coatings A05-G01E1 A12-B01K G02-A02H
compounding A05-G01B
elastomers A05-G+
expanded, foamed A12-S02+
fabrication A05-G01C
fibres, chemical features in F01-D07
fibres, dyeing and printing F03-F10
foams A12-S02+
in polymeric blends A07-A+
monomeric polyol based A05-G04
polyester polyol based A05-G02
polyether polyol based A05-G03
production A05-G01A
treatment A05-G01D
Polyvinyl acetal A10-E02
Polyvinyl acetate A04-F08
Polyvinyl alcohol A10-E09+
fibres, chemical features F01-D08
fibres, dyeing/printing F03-F11
production by hydrolysis A10-E09
Polyvinyl bromide A04-E04
Polyvinyl butyral A10-E02
Polyvinyl butyrate A04-F10
Polyvinyl carbazoles A04-D06
Polyvinyl chloride A04-E02+
applications A04-E02E+
applications, adhesives A12-A05B3 G03-B02D2
applications, artificial leather A12-B02A F04-B01B
applications, coatings A12-B01F G02-A02D2
applications, in engineering, building A04-E02E1

compounding A04-E02B
fabrication A04-E02C
fibres, chemical features F01-D08
fibres, dyeing/printing F03-F11
production A04-E02A
treatment A04-E02D
Polyvinyl cinnamate A10-E07B
A10-E09+
Polyvinyl cyclohexane A04-G
Polyvinyl fluoride A04-E10A
Polyvinyl formal A10-E02
Polyvinyl iodide A04-E04
Polyvinyl isobutyl ether A04-F11
Polyvinyl ketal A10-E02
Polyvinyl pyridines A04-D07
Polyvinyl stearate A04-F10
Polyvinylamine A10-E09
Polyvinylene carbonate A04-F
Polyvinylidene bromide A04-E06
Polyvinylidene chloride A04-E06
Polyvinylidene fluoride A04-E10B
Polyvinylidene iodide A04-E06
Polyvinylpyrrolidone A04-D05A
B04-C03A
C04-C03A
iodine complex A10-E04A
Polyxylylene A05-J13
Pools, swimming A12-F01A
Popcorn making D03-J11
Porcelain L02-G03A
Pore formers for polymers A08-B+
Pore forming of polymers A11-B06+
Pork D02-A03B
Porous
forms A12-S+
E12-A10
metal by electrolysis M28-D
Porphin dye (general) E23
Porphyrin B06-D18
C06-D18
E06-D18
Portland
cement L02-C02
cement, polymer use in A12-R01A
clinker in cement L02-C03
Positron emission tomography B12-K04C3
C12-K04C3
Post halogenated polymer A10-E04A
Post-forming glass L01-G
fibres L01-F03E
Post-treatment of castings M22-G03H
Posters, advertising A12-W03
Posthalogenation A10-E04A
Potassium bicarbonate E33-D
Potassium bromide E33-B
Potassium carbonate E33-D
Potassium catalysts N01-A01
Potassium chloride E33-B
Potassium compounds B05-A01A
C05-A01A
inorganic E33-S
organic E05-A
E05-A02
Potassium fluoride E33-B
Potassium halide B05-A01A
C05-A01A
E33-B
Potassium hydroxide E33-A
electrolytic production E33-A01
production E33-A02
use E33-A03
Potassium iodide E33-B
Potassium nitrate E33-E
Potassium oxide E33-A
E33-A04
Potassium persulphate E31-E03
catalyst for polymerisation A02-A01
crosslinker A08-C05
A08-D
redox catalyst for polymerisation A02-A03
Potassium sulphates E33-C
Potassium sulphites B05-A01A
C05-A01A
E33-C
Potassium titanate filler/reinforcing agent A08-R09
Potentiometry testing B11-C08B
C11-C08B
Potted components (electrical, polymer use) A12-E04
Potting compound (electrical) A12-E04
Poultices B12-M02C
C12-M02C
D09-C04A
Poultry (whole), processing D02-A01
Poultry products D02-A03
Pour depressant (lubricant additive) H07-G05
polymeric A12-W02A
Pour point depressants (fuels) H06-D05
Powder metallurgy M22-H
compacting M22-H03A
compacting and sintering M22-H03C
composite materials M22-H03F
fibre reinforced material M22-H03D
impregnation or post treatment M22-H03E
powder metal treatment M22-H02
pressing M22-H03A
sintering M22-H03B
specific products M22-H03G
Powder coatings G02-A07A
Powder paints, of polymer A12-B+
A12-S09+
G02-A07A
Powder treatment, of polymers A11-A04
Powdered filler, reinforcing agents for polymers A08-R+
Powdering detergents D11-D03
Powders E12-A07
coating onto substrates A11-B05E
dusting B12-M02E
C12-M02E
E12-A07
formation of polymer A11-A04
metal production by electrolysis M28-D
metal production by other methods M22-H01
of polymers A12-S09
oral application B12-M11G
C12-M11G
polymeric coating process A11-B05E
Powdery mildew C14-A06N
Pozzuolanic cements L02-C03
PP A04-G03+
PPAR agonist B14-L01C
C14-L01C
PPAR antagonist B14-L06C
C14-L06C
Praseodymium compounds B05-A03B
C05-A03B
catalysts N03-A02B
inorganic E34-E02B
organic E05-P
Pre-spinning yarn process F01-F
Prebiotics (health food) D03-H01T2A
Probiotics (health food) D03-H01T2A
Precious metal conductor tracks for semiconductor devices L04-C10E
Precious metal catalysts N02
Precipitating with shear to give fibres and fibrils F01-C07
Precipitation
of polymers, purification by A10-G
tests B11-C07
C11-C07
water treatment D04-A01B
Prednisolone B01-B02
C01-B02
Prednisone B01-B01
C01-B01
Prefabricated concrete L02-D04
compositions L02-D04A
methods L02-D04B
products L02-D04D
Preformed glass rod and sheath for optical fibre manufacture L01-F03F4
Preforming, pelleting of polymers A11-A04
Preforms for optical glass fibre L01-F03F
1,4-Pregnadiene (excluding prednisone and prednisolone) B01-B03
C01-B03
Pregnadiene (two ring “A” double bonds other than 1,4) B01-B04
C01-B04

Pregnancy testing B12-K04A6
B12-K04G2E
C12-K04A6
C12-K04G2E
Pregnane (saturated ring "A") B01-D01
C01-D01
Prehardening during colour processing G06-G14
Preheating
furnace charge J09-B03
hot blast M24-A05E1
polymers A11-A02+
Premenstrual tension treatment
B12-C05
B14-N14
C12-C05
C14-N14
Preparation of catalysts, general N06-E
Prepolymers of polyurethanes A05-G+
Preservation of
body parts (chemical) D09-A01
D09-A03
edible seeds D03-A05
eggs and egg products D03-A03
fish and fish products D03-A02
foods (general) D03-H02
meat and sausages D03-A01
organs, animal tissue D09-A03A
plant tissue D09-A03B
vegetables and fruit D03-A04
wood F05-B01
Preservatives
agricultural/pharmaceutical B12-M06
C12-M06
biological, for fibres/fabrics F03-C02B
for polymer A08-M02
Preserved food product D03-A
Preserving
apparatus B11-C06
C11-C06
food (general) D03-H02
Press polishing of polymers A11-C04
Press section of papermaking machine F05-A04C
Presses (forging, hammer and extrusion) M21-J02
Pressing of
ceramic powder, cold L02-A03
ceramic powder, hot while sintering L02-A04
glass L01-E04
metal, powder M22-H03A
metal, sheet, wire, rod, tube profile M21-J
metal, sheet, wire, rod, tube profile, control devices M21-J03
metal, sheet, wire, rod, tube profile, equipment M21-J02
metal, sheet, wire, rod, tube profile, processes M21-J01
polymers A11-B13
Pressure
casting M22-G03E
filters J01-F02A
swing adsorption J01-E03D
Pressure sensitive
adhesive polymer A12-A+
copying material A12-D05A
G05-D
office materials A12-D05A
Pressure Swing Adsorption H02-B05
Pressure vessel
discharge of gas from J06-B04
filling with gas J06-B03
for nuclear reactors K05-B01
gas/liquid storage J06-B01
Prestressed concrete L02-D05
Pretreatment before digesting (in paper-making) F05-A02A
Pretreatment of surfaces for application of adhesive G03-B03
Prevention of scales on polymerisation vessels A10-G02
Prills B12-M11D
C12-M11D
Primers (explosive) K04-B01
Primers for coatings G02-A05E
Primers for polymers A08-M01+
Printability improver for polymers A08-M01A
Printability of polymers A09-A06
Printed circuit boards
encapsulation by plastics or glass A12-E04
A12-E07A
L03-H04E8
other treatment L03-H04E9
Printed circuits A12-E07A
L03-H04E
electroplating of L03-H04E3
manufacture, photographically G06-D06
manufacture, reprographically L03-H04E2
metallising L03-H04E3
microwelding L03-H04E7
patterning processes L03-H04E2
soldering, brazing L03-H04E6
substrate
substrate, ceramic L03-H04E5
substrate, plastics L03-H04E1
Printing A12-W07+
after treatment F03-F14
apparatus for F03-F01
auxiliaries F03-F32
auxiliaries for fibres F03-F32
by photographic methods A12-L02B1
G06-D05
deep relief G05-A02
dyes for printing ink A12-W07E
G02-A04B
equipment (excluding plates) made of polymers A12-W07F
fabrics A12-S05Q
gravure G05-A03
ink A12-W07D
G02-A04A
ink for polymer surfaces A08-E+
ink jet G05-F03
ink jet inks A12-W07D1
intaglio G05-A03
lithographic A12-W07B
G05-A01
others, produced photographically A12-W07C
paste for polymers A08-E01
pigment for printing ink G02-A04B
planographic G05-A01
plastics A11-C04A
plates A12-W07+
G05-A+
polymeric, non-photographic A12-W07A
polymeric, photographic composition for making plates A12-L02B1
production of plates by electrophotographic methods A12-L02B1
G06-D05A
silicone resins used in A06-A00E4
stencil for G05-A04
substrates A12-W7F2
thermal (heads) G05-F02
L03-G10B
transfer sheets A12-W07F1
G05-F01
Printing plastics
Painting plastics A11-C04A
Printout materials for photo-sensitive system G06-C06
Prions B04-N10
C04-N10
Prion disease treatment B14-N16
C14-N16
Prion detection, testing and identification D05-H06B
Probes (DNA) used in tests (process) B11-C08E5
C11-C08E5
Probes (electrical-polymer use) A12-E13
Process, general B11
C11
E11
catalytic N06
Processing agent or step (photographic) G06-G+
Processing aid for
fabrics F03-C05
polymers A08-M03+
Processing of polymers
forming processes A11-B+
miscellaneous processes A11-C+
preliminary processes A11-A+
Prodegradant for polymers A08-M08
Prodrugs B14-S28
C14-S28
Proenzyme B04-L01
C04-L01
Progestagen inhibitor B12-G01A
B14-D02A
C12-G01A
C14-D02A
Progestational B12-G04D
B14-D01C
C12-G04D
C14-D01C

Progesterone (excluding 17-hydroxy) B01-C04 C01-C04
Programs for sewing machines F02-F01B1
Prohormone B04-J99 C04-J99
Projectiles K03-A02
lethal K03-A02A
non-lethal K03-A02B
Prolactin B04-J05 C04-J05
Promethium compounds B05-A04 C05-A04
catalysts N03-A02B
inorganic E34-E02B
organic E05-R
Promoters for
addition (co)polymers A08-C02
blowing agents A08-B
crosslinking agents for other (co)polymers A08-D+
hair growth D08-B03A
Proofing, colour G05-C
1,3-Propane dicarboxylic condensant A01-E12
Propane diol condensant A01-E14
Propane-1,2,3-triol condensant A01-E14
Propargyl alcohol
(co)polymers A04-A02
monomer A01-B02
Propellants (for projectiles) A12-T03C K04-C
Propene (see also Propylene) E10-J02C
monomer A01-D13
Properties of polymers A09-A+
absorption/adsorption A09-A08
biodegradeable A09-A07
dyeability A09-A06
electrical A09-A03
electroluminescent A09-A03A
flammability A09-A01
heat stability A09-A01A
impact strength A09-A05A
liquid crystal A09-A02A
magnetic A09-A04
mechanical A09-A05+
nematic A09-A02A
optical A09-A02+
other A09-A
thermal A09-A01A
Propolis B04-A09H C04-A09H
Propylene
(co)polymers with ethylene A04-G06
(co)polymers with other monomers A04-G09
homopolymer A04-G03
monomer A01-D13
Propylene glycol condensant A01-E13
Propylene oxide E07-A03A
(co)polymers A05-H04
condensant A01-E07
Propylene oxide - TDI polyurethanes A05-G03
Propylene oxide-ethylene oxide copolymer based polyurethane A05-G03
Propylene urea condensant A01-E03
Propylene urea-formaldehyde resin A05-B04
Propylene- vinylchloride copolymer A04-E03+ A04-G09
Propylene-ethylene copolymer A04-G06+
Propylene-ethylene- diene copolymer A04-G06+
Prostacyclin B04-H03D C04-H03D
Prostaglandins B04-B02E B04-H03 C04-B02E C04-H03
agonist/mimetic B14-L04 C14-L04
antagonist/inhibitor B14-L08 C14-L08
prostaglandin E1 B04-H03A C04-H03A
prostaglandin E2 B04-H03B C04-H03B
prostaglandin F2 alpha B04-H03C C04-H03C
prostaglandin I2 B04-H03D C04-H03D
Prostate disease treatment B12-G03 B12-G04 B14-N07A C12-G03 C12-G04 C14-N07A
Prostheses A12-V02+ D09-C01 F04-E04 B12-M16 C12-M16
Protactinium compounds B05-A04 C05-A04
inorganic E35-Y
organic E05-Q
PROTAC® B04-Q05 C04-Q05
Proteases B04-L05C C04-L05C
agonists B14-L01A3 C14-L01A3
inhibitors B14-D07C C14-D07C
Protective chemicals (agriculture) A12-W04C
Protective clothing A12-C02 D09-C04D F04-C06
against radiation K07-A
Protective coatings
photographic G06-A08
polymer use A12-B+
Protective colloid (additive to polymer system) A08-S06
Protective layers in
magnetic recording L03-B05K1
photography G06-A08
Protein B04-B04A B04-N04 C04-B04A C04-N04 D03-F
analysis B11-C08F C11-C08F J04-B03
animal B04-N02 C04-N02
biosynthesis D05-C12 D05-C13
composition D03-F06
from animal or fish waste B04-B04A5 C04-B04A5 D03-F04
from microorganisms B04-N03 C04-N03 D03-F03
from petroleum source - see also Biosynthesis H08-E03
from soya beans D03-F02
hydrolysate B10-B02C C10-B02C E10-B02C
libraries B11-C10C C11-C10C
plant B04-N01 C04-N01
recovery B04-B04A6 B04-N04 C04-B04A6 C04-N04 D03-F01
removal from waste water D04-B04
sequencing method B11-C08F7B C11-C08F7B
shaping (thread or film) D03-F05
zinc finger protein B04-N11 C04-N11 D05-H17A7 D05-H17B7
Proteinaceous
artificial fibres, chemical features F01-D10
polymers A03-C01
Proteolysis targeting chimera B04-Q05 C04-Q05
Proteomics B11-C08F+ C11-C08F+
Prothrombin B04-B04D3 B04-H19 C04-B04D3 C04-H19
Proton pump inhibitors B14-L12 C14-L12
Protozoa B04-F06 C04-F06
Protsta
prostaglandin C04-K01H
PS A04-C02
Pseudomonas B04-F10A6 C04-F10A6

Psoriasis treatment B12-A07 B14-N17C C12-A07 C14-N17C
Psychosthenic C12-C05
Psychotropic B12-C05 B14-J01 C12-C05 C14-J01
Pteridine B06-D09 C06-D09 E06-D09
Pteridophytes B04-A08B C04-A08B
PTFE A04-E08+
PU A05-G+
Pullulan A03-A+ B04-C02F C04-C02F D06-H
Pulmonary B12-K06 B14-K01 C12-K06 C14-K01
Pulp after-treatment in papermaking F05-A02B
Pulp liquor regeneration, in papermaking F05-A02C
Pulping fruit D03-J06
Pulping, in papermaking F05-A02A
Pulsed release B12-M10D C12-M10D
Pultrusion process for FRP production (excluding A11-B09A+) A11-B09C
Pulverisation of polymers A11-A04
Pulverising process J02-B
Pumps for production of oil H01-D03
Pumps, polymer use in A12-H
Punch cards for
knitting systems F02-B01
weaving system F02-A02
Punching
fabric (non woven) F02-C02D
polymers A11-A05A
sheet metal M21-E02
Purgative B12-J07 B14-E09 C12-J07 C14-E09
Purging of polymer systems A10-G+ A11-A
Purification (process) B11-B C11-B E11-Q01
by chemical means E11-Q01A
by physical means E11-Q01B
catalytic N07-L01 N07-L02
of drying oil G02-B03
of gas H09-D
of natural resin G02-B01
of polymer A10-G01+
of water by electrodialysis D04-A01E
Purine B06-D09 C06-D09 E06-D09
Purses, polymer use A12-T
Putty A12-R08 G04-B02
PVA A10-E09+
fibres, chemical features F01-D08
fibres, dyeing/printing F03-F11
PVAC A04-F08
PVC A04-E02+
fibres, chemical features F01-D08
fibres, dyeing/printing F03-F11
PVC/ABS blend (“Alloy”) A04-C03 A04-E02B A07-A02A1
PVDC A04-E06
PVDF A04-E10B
PVF A04-E10A
PVP A04-D05A
Pyran (excluding tetrahydropyran) B07-A03 C07-A03 E07-A03C
Pyrazine (excluding piperazine) B07-D10 C07-D10 E07-D10
Pyrazino(1,2-b)-pyridazine B06-D08 C06-D08 E06-D08
Pyrazino(2,3-d)-pyrimidine B06-D09 C06-D09 E06-D09
Pyrazino-pyridazine (four N-atoms) B06-D09 C06-D09 E06-D09
Pyrazino-pyrimidine (three N-atoms) B06-D08 C06-D08 E06-D08
Pyrazole B07-D08 C07-D08 E07-D08
Pyrazolo(1,2-a)-pyridazine B06-D05 C06-D05 E06-D05
Pyrazolo(2,3-a)-pyrazine B06-D08 C06-D08 E06-D08
Pyrazolo(2,3-a)-pyridine B06-D05 C06-D05 E06-D05
Pyrazolo(2,3-b)-pyridazine B06-D08 C06-D08 E06-D08
Pyrazolo(3,4-b)-pyrazine B06-D09 C06-D09 E06-D09
Pyrazolo-pyridazine (four N-atoms) B06-D09 C06-D09 E06-D09
Pyrazolo-pyridine (three N-atoms) B06-D08 C06-D08 E06-D08
Pyrazolo-pyrimidine (four N-atoms) B06-D09 C06-D09 E06-D09
Pyrazolo-pyrimidine (three N-atoms) B06-D08 C06-D08 E06-D08
Pyrazolone photographic coupler G06-H08B
Pyrazolotriazole based photographic couplers G06-H08D
Pyrethrin B04-A07C C04-A07C
Pyridazine B07-D10 C07-D10 E07-D10
Pyridine (excluding piperidine) B07-D04 C07-D04 E07-D04
Pyridines, vinyl
(co)polymers A04-D07
monomer A01-D01
Pyridinium B07-D04A C07-D04A E07-D04A
Pyrido-pyrimidine (three N-atoms) B06-D08 C06-D08 E06-D08
Pyrido-pyrimidine (two N-atoms) B06-D06 C06-D06 E06-D06
Pyridoxine B03-D C03-D
Pyrimidine B07-D12 C07-D12 E07-D12
Pyrimido-pyrimidine (four N-atoms) B06-D09 C06-D09 E06-D09
Pyrimido-pyrimidine (three N-atoms) B06-D08 C06-D08 E06-D08
Pyroelectric materials L03-G09C
Pyroligneous acid B04-A07D1 B04-A09J C04-A07D1 C04-A09J
Pyrolysed polymer A10-E05+
Pyrolysis (of) A10-E05+
polymer waste A10-E05A A11-C07
sludge (water treatment) D04-B10B
Pyromellitic acid condensant A01-E11
Pyrophoric composition K04-B02

Pyroxylin A03-A03
B04-C02A
C04-C02A

Pyrrole (excluding pyrrolidine) B07-D02
C07-D02
E07-D02

Pyrrole polymer A05-J12

Pyrrolidine B07-D03
C07-D03
E07-D03

Pyrrolidones, vinyl
(co)polymers A04-D05A
monomer A01-D01

Pyrrolizine B06-D04
C06-D04
E06-D04

Pyrrolo-pyrimidine (three N-atoms) B06-D08
C06-D08
E06-D08

Pyrrolo-pyrimidine (two N-atoms) B06-D05
C06-D05
E06-D05

Pyrylium spectral sensitiser, photographic G06-H07D

Q

Quartz filler E31-P
G01-A06
for polymers A08-R06A

Quaternary ammonium
catalysts N05-D
compounds

Quaternary ammonium compounds
disinfectants D09-A01B
heterocyclic detergents D11-A02A
monoquaternary B10-A22
C10-A22
E10-A22
non-heterocyclic detergents D11-A02B
polyquaternary B10-A21
C10-A21
E10-A21

Quenching
baths for ferrous metals M24-D04E
following extrusion of polymers A11-B07D
petroleum refining H05-M
spun fibres F01-C

Quilting textiles F03-H

Quinazoline B06-D06
C06-D06
E06-D06

Quinidine B04-A02
C04-A02

Quinine B04-A02
C04-A02

Quinol condensant A01-E13

Quinoline B06-D02
C06-D02
E06-D02

Quinolizine B06-D04
C06-D04
E06-D04

Quinomycin B02-Q
C02-Q

Quinone B10-A06
C10-A06
E10-A06
E10-A06A
derivatives B10-A06
C10-A06
E10-A06
E10-A06B

Quinoxaline B06-D06
C06-D06
E06-D06

Quinuclidine B06-D04
C06-D04
E06-D04

R

Racemase B04-L07
C04-L07

Racemates
separation by J01-X02

Racemisation process B11-C01
C11-C01
E11-J02

Racquets A12-F01B

Radiation
measurement K08-A
photographic exposure to G06-G18
protection against K07-A
sensitive resists A12-L02+

Radiation sensitive system (element in system) G06-F+
diazo element G06-F02
heat sensitive G06-F08
inorganic photoconductor, other than selenium or zinc oxide G06-F07
inorganic photoconductor, selenium (alloy) or zinc oxide G06-F07A
light-sensitive dye G06-F05
non-silver metal or compound G06-F04
organic photoconductor (including electro-photographic) A12-L02+
G06-F06
photosensitive polymer G06-F03+
photosensitive polymer, containing additives e.g. photosensitisers G06-F03D
photosensitive polymer, containing monomer G06-F03B
photosensitive polymer, polymer containing composition G06-F03C
photosensitive polymer, polymeric photoconductors A12-L05B
G06-F03A
silver halide G06-F01+
silver halide core-shell emulsion G06-F01B
silver halide tabular grains emulsion G06-F01A
silver salt (other than halide) G06-F

Radio frequency welding of polymers A11-C01+

Radioactive
decontamination K07-A03
decontamination of water D04-B07
metal elimination from body B12-J05
B14-M01
C12-J05
C14-M01
tracer bound to antigen or antibody B11-C07A3
C11-C07A3

tracer test B11-C07B5
C11-C07B5
well logging H01-A02B
Radioactive compounds - see also specific element B05-A04+
C05-A04+
organic E05-Q
E05-R
Radioactive element (non-metal) B05-A04+
C05-A04+
E05-R
E31
Radioactive fall-out shelters K07-A02B
Radioactive waste treatment K07-B
concentration K07-B01
encapsulation K07-B01
encapsulation, in glass L01-F
gas treatment K07-B02
long-term storage K07-B01A
polymer use in A12-W11C
solidification K07-B01
Radiochemistry K09-E
Radioprotectant B14-M02B
C14-M02B
Radios A12-E12
Radiotherapy B14-S26
C14-S26
Radium catalysts N03-A03
Radium compounds B05-A04
C05-A04
inorganic E34-E03
organic E05-Q
Radomes A12-E
Radon (element) B05-A04
C05-A04
E31-J
Radon compounds B05-A04
C05-A04
inorganic E31-J
organic E05-Q
Rain proofing of fabric
non-resinous A12-S05R
F03-C02A
resinous A12-G03
F03-C02A
Rainwater goods A12-R02
Raising fabrics F03-A
Raney catalyst N06-C01
for poymerisation A02-A06
Rapid release B12-M10C
C12-M10C
Rapier weaving/loom F02-A04B
Rare earth catalysts N03-A
Rare earth metal
alloys - for magnetic purposes L03-B02A5
in glass composition L01-A02
production M25-G21
Rare earth metal compounds B05-A03B
C05-A03B
inorganic E34-E
inorganic compound pigments G01-A15
organic E05-P
Rare earth oxides L02-G01C
production L02-G12D
Rare gas B05-B02C
C05-B02C
E31-J
compounds, inorganic E31-J
compounds, organic E05-K
Rare gas catalysts N04-A
Rauwolfia alkaloid B04-A05
C04-A05
Raw material, mechanical treatment in papermaking F05-A01
Rayon A03-A05+
chemical features F01-D06
dyeing/printing of F03-F09
Razor blades A12-V04
Reaction apparatus
Cyclization reaction E11-A01
Decyclization (ring opening) reaction E11-A02
Ring opening (decyclization) reaction E11-A02
Reaction injection moulding A11-B12+
Reactions (analytical) J04-B01B
Reactions, in chemical modification of polymers A10-E+
Reactive diluents for polymers A08-P+
Reactive dyes see also under type or dye in (E02) E25-G
i.e azo, anthraquinone, phthalocyanine
for dyeing/printing fibre F03-F19
Reactor, nuclear K05-A
accessory K05-B
cables K05-B07E
chemical production of fuel K05-B04A
component K05-B
control K05-B06
coolant K05-B03
coolant flow control K05-B06B
defective fuel location K05-B06C
fast fission K05-A01
fuel K05-B04
fuel element construction K05-B04B
fuel rod handling K05-B07A
fusion K05-A03
inspection apparatus K05-B07J
liquid metal coolants K05-B03A
maintenance K05-B07D
measurements, other K05-B06D
moderator K05-B05
moderator, deuterium, heavy water K05-B05A
neutron flux control K05-B06A
other components K05-B07G
pipes K05-B07E
pressure vessel K05-B01
process K05-A
pumps K05-B07F
servicing K05-B07D
shielding K05-B02
shut down K05-B06A1
thermal K05-A02
thermal, gas-cooled K05-A02A
thermal, liquid metal-cooled K05-A02C
thermal, water-cooled K05-A02B
waste removal K05-B07C
Reagent, analytical J04-B01B
Receivers and housings, telephones A12-E12
Receiving agent (photographic) G06-A04
Receptors
adrenergic (alpha and/or beta) B04-K01B
C04-K01B
androgen B04-K01L1E
C04-K01L1E
angiotensin B04-K01N
C04-K01N
antibody B04-K01W
C04-K01W
bacterial/bacterial antigen B04-K01T
C04-K01T
blood cell/blood cell antigen B04-K01R
C04-K01R
cancer cell/cancer cell antigen B04-K01S
C04-K01S
cholinergic B04-K01A
corticosteroid B04-K01L3
C04-K01L3
dopamine B04-K01C
C04-K01C
estrogen B04-K01L2
C04-K01L2
general and other B04-K01
C04-K01
growth factor B04-K01J
C04-K01J
histamine (H1, H2) B04-K01F
C04-K01F
insulin B04-K01M
C04-K01M
interleukin B04-K01G
C04-K01G
leukotriene B04-K01H
C04-K01H
lipoprotein (HDL, LDL) B04-K01H
C04-K01H
melanin concentrating hormone B04-K01Y1
C04-K01Y1
non-steroidal nuclear hormone B04-K01X
C04-K01X
other cell/microbe/antigen B04-K01V
C04-K01V
other hormone receptor B04-K01P
C04-K01P
other modifier of cell function and growth B04-K01K
C04-K01K
other steroid B04-K01L4
C04-K01L4
parasympathetic B04-K01A
C04-K01A
peroxisome proliferator activated B04-K01X1
C04-K01X1
sympathetic B04-K01B
C04-K01B
thromboxane B04-K01H
C04-K01H

thyroid B04-K01X2 C04-K01X2
viral/viral antigen B04-K01U C04-K01U
Reclaiming
mould material M22-B02
polymers A11-C03+
Recombinant cells D05-H14
Antibody-producing cells D05-H15
bacteria D05-H14A1
fungi D05-H14A2
insect cells D05-H14B1
mammalian cells D05-H14B2
microbial (specified) other than D05-H14A1 and D05-H14A2 D05-H14A3
microbial (unspecified) D05-H14A
plant cells D05-H14B3
Recombinant cell lines D05-H14B
Recombinant cell lines (specified) other than D05-H14B1, -H14B2 and -H14B3 D05-H14B4
Recombinant protein production D05-H17
fusion protein D05-H17C
mutant protein D05-H17B
wild-type protein D05-H17A
Reconstituted tobacco D07-D
Recording
devices, magnetic A12-E08A+
direct electron G06-D03
magnetic tape A12-E08A1
Records, gramophone A12-W01
Recovery of
biologial substances and materials B11-B C11-B D05-H13
catalysts N06-E
nuclear fuel K06-C
polymer scrap A11-C03+
solvent vapour from gases J01-E01
waste textile materials F03-E
Recovery process, general B11-B C11-B E11-Q
Recrystallisation of polymers during purification A10-G01+
Rectification of polymers A10-G01+
Rectifiers
diodes L04-E02
Recycling of ceramics L02-A13
Recycling of fabric products F03-E02
Recycling of electr(on)ic materials L03-J01
Recycling of glass L01-B02
Recycling of polymers A11-C03+
Recycling of semiconductors L04-X06
Recycling of waste J09-C01A
Recycling of waste water (apparatus) D04-A06
Red phosphorus flame retardant A08-F03
Red sensitive (electro)photographic layer G06-C14A
Redox catalysts for polymerisation A02-A03
Reduced polymer A10-E13
Reducers, permeability (polymer use in mining, oilwells) A12-W10C
Reductase agonists B14-L01A1 C14-L01A1
Reductase inhibitors B14-D05D C14-D05D
Reductases B04-L03D C04-L03D
Reduction process B11-C01 C11-C01 E11-D
for polymers A10-E13
Reed switches L03-B04A
Reeling yarns F01-H03+
Refinery products by cracking A01-B04
Refining non-ferrous metals, carbonyl reduction M25-D
Reflectors L03-G02G
Reflowing of electrodeposited metal M11-B03
Reforming catalysts H04-F02C
Reforming process B11-C C11-C E11-H H04-C
Refractive index of polymers A09-A02
Refractories
acidic L02-E03
amphoteric L02-E09
basic L02-E04
carbon or carbon-containing L02-E07
cast L02-E08
castable L02-E05
casting L02-A05
core material L02-E06
decorating L02-A07
diatomaceous L02-E02
drying L02-A03
fireclay L02-E02
firing L02-A04
flame (plasma) spraying L02-A06
for glass furnaces L01-C
glazing L02-A07
gunnable L02-E05
melting L02-A05
mouldable L02-E05
neutral L02-E09
polymer use in A12-W12G
preparation of materials L02-B
production (methods and equipment) L02-A
raw material preparation equipment L02-A02
shaping L02-A03
testing L02-A08
Refractories, ceramics, cements general L02
Refractory
cement or concrete L02-E05
coating of metal M13-H04
composition, polymer use (excluding core moulds) A12-W12G
metal alloy M26-B13
Refrigerants G04-B01+
halogen containing G04-B01A
containing fluorine as the only halogen G04-B01A1
containing both fluorine and chlorine G04-B01A2
fluoroether refrigerants G04-B01A3
hydrocarbon refrigerants G04-B01B
CO_2 as a refrigerant G04-B01C
other specific chemicals as refrigerants G04-B01E
refrigerant compositions or blends refrigerants G04-B01F
Refrigeration J07-A J07-C
lubricants J07-A09 H08-D11
media J07-A08
of foodstuffs D03-H02
Refrigerators A12-D04
Regenerated cellulose A03-A05+ B04-C02A1 C04-C02A1
Regenerated cellulose fibres
chemical feature in production A03-A05A F01-D06
dyeing/printing F03-F09
solvent dyeing F03-F13A
Regeneration of pulp liquors in papermaking F05-A02C
Regulation sequences D05-H12D5
transcription D05-H12D5
translation D05-H12D5
Regulation, heat treatment (ferrous) M24-D07
Regulators for polymerisation A02-B
Reheating furnaces for metal M21-N04
Reinforced
concrete L02-D05
plastics A12-S08+
plastics, glass fibre A12-S08B
plastics, hoses, tubes, pipes A12-H02B
plastics, laminates A12-S08A
plastics, lay up of A11-B09+
plastics, panels, sheets A12-S08A
plastics, phenol-formaldehyde resin in A05-C03A
plastics, phenolic resin in A05-C01B1
plastics, thermoplastics A12-S08E
plastics, uses A12-S08D+
Reinforcing agents for polymers A08-R+
Relaxing of fibres F01-H05
Relays L03-B04
contact breakers L03-B04B
Release coating compositions G02-A05D
Release layer, photographic G06-A05

Releasing photographically active components on processing excluding dyes G06-C15
Removal of
catalyst from polymer A10-G01A
chemicals E11-R
Halohydrocarbons D04-B06E
impurities from water D04-B
monomer from polymer A10-G01A
non-cellulosics in paper-making F05-A02+
of inorganic contaminants J01-X01B
of organic contaminants J01-X01C
scale on polymerisaton vessels A10-G02
workpiece from sewing machine F02-F01B2
Removers, chemical, for ink and paint G02-A03C
Renewable energy devices A12-W16
Renin inhibitor B12-F05A
B12-G01
C12-F05A
C12-G01
general or unspecified B14-D07C
C14-D07C
used as hypotensive B14-F02B1
C14-F02B1
Repair of polymer articles A11-C
Repellence agent for polymer A08-S08
Repellents
additive for polymers against animals, insects, etc. A08-M02
additive for polymers against oils or water A08-S08
against animals B14-B13
C14-B13
against animals other than insects B14-B13
C14-B13
against insects B12-L06
B14-B05
C12-L06
C14-B05
D09-E02
against mammals including rodents B12-N06
C12-N06
for fabrics F03-C02+
Reperfusion treatment B14-F05
C14-F05
Reporter gene B04-E12
C04-E12
Repressuring (oil production) H01-D07
Reprographic method for printed circuit production A12-E07A
A12-L02B2
G06-D06
L03-H04E2
Reserpine B04-A05
C04-A05
Reservoir device B12-M10A2
C12-M10A2
Residues in pulping, uses F05-A02C
Residuum (petroleum) H08-C
Resin concrete A12-R01A
L02-D07B
Resin system development, photographic G06-G17
Resins (general) B04-C03
C04-C03
addition in paper manufacture A12-W06+
F05-A06C
addition type, general A04-H00H
condensation type, general A05-K00K
encapsulation of semiconductors A12-E04
A12-E07C
L04-C20A
natural A03-C02
B04-C03D
C04-C03D
G02-B01
petroleum A03-C04
reinforced with specifically designed fabric F03-D04
Resist coating apparatus for semiconductor manufacture G06-D06
G06-E04
L04-D08
Resist dyeing/printing of fibres or fabrics F03-F28
Resist materials in semiconductor processing G06-D06
L04-C05
Resistance
methods M23-D02A
Resistance welding M23-D02
apparatus M23-D02B2
butt M23-D02A1
circuits M23-D02B1
other M23-D02A4
seam M23-D02A2
specially adapted for particular work M23-D02A5
spot M23-D02A3
Resistive oxide compositions including ceramic oxide L02-G07D
Resistivity of polymers A09-A03
Resistors (electrical) A12-E07C
L03-B
fixed L03-B01B
gas sensitive L03-B01A4
moisture sensitive L03-B01A3
semiconductor L04-C12G
thick film L03-B01C
variable L03-B01A
Resists A12-L02+
photo (excluding printing plates etc.) G06-D04
photosensitive printing G05-B
semiconductor processing G06-D06
L04-C06B
Resols A05-C+
Resolution processes B11-B
C11-B
E11-L
Resorcinol E10-E02A
E10-E02D5
condensant A01-E13
phenoplast derived from A05-C02
Resorcinol-formaldehyde resin A05-C02
Respirators, polymer use A12-V03B
Respiratory active B12-K06
B14-K01
C12-K06
C14-K01
Restenosis treatment B14-F01G
C14-F01G
Restrainers for photographic development G06-H13
Retardant for adsorption properties of fabic
Retardant for adsorption properties of fabric F03-C02+
Retarders for concrete set L02-D14A
Retarders for crosslinking
of addition (co)polymers A08-C06
of other polymers A08-D+
Retarding water penetration in concrete L02-D14Q
Retinol B03-A
C03-A
Retreading of tyres A12-T01D
Retrovirus B04-F11B1
C04-F11B1
Retting to obtain vegetable fibres F01-B02
Reuse of
Marine production platform components H01-B01E
old tyres A12-T01D
polymers A11-C03
Reversal processing G06-G16
Reverse osmosis A12-W11A
J01-C03A
water treatment, apparatus D04-A01E
water treatment, membrane A12-W11A
D04-A01D
water treatment, waste D04-B10
Reverse transcriptase B04-L04B
C04-L04B
agonists B14-L01A2
C14-L01A2
inhibitors B14-D06B
C14-D06B
Rhenium catalysts N02-E02
N03-E
for polymerisation A02-A06+
Rhenium compounds B05-A03B
C05-A03B
inorganic E35-T
organic E05-N
E05-N03A
Rheumatoid arthritis treatment B12-D03
B14-C09B
C12-D03
C14-C09B

Rhizogenes B12-P08 C12-P08 C14-U01D
Rhodium
  alloys M26-B01
  electrodeposition M11-A05
  production M25-G20
Rhodium catalysts N02-E
  for polymerisation A02-A06+
Rhodium compounds B05-A03B C05-A03B
  inorganic E35-X
  organic E05-M E05-M02B
Ribbed tube production M21-C
Ribbons A12-S06+ F02-E02
  (polymer form) A12-P07
  typewriter A12-D05A F02-E02
Riboflavin B03-C C03-C
Ribozyme B04-E07A C04-E07A D05-H12D4
Rice D03-L
  Crackers D01-B02C
  products D03-L
Rice blast treatment B12-A02 C12-A02
Rickettsia B04-B02B1 B04-F10A7 C04-B02B1 C04-F10A7
Rifamycin B02-R C02-R
Rigid-pack A12-P06B
RIM A11-B12+
Ring expansion/contraction process B11-C C11-C E11-B01
Ring formed during modification of polymers A10-E14
Ring opening
  decyclization apparatus E11-A02
  decyclization process E11-A02
  polycondensation A10-D03
Ring spinning F01-G01
Ring-closure polycondensation A10-D03
Ringless spinning F01-G02
Rings, 'O' or piston (polymer use) A12-H08
Risers; drilling H01-B03C6
Riveting of
  metal sheets, wires, rods, tubes or profiles M21-J
  polymer material A11-C01+
Rivets (polymer use) A12-H12
RNA general B04-E01 C04-E01
RNA interference B14-S03C C14-S03C
Micro RNA B04-E07D C04-E07D D05-H12D8B
Short interfering RNA B04-E07C C04-E07C D05-H12D8A
Road
  paints A12-R G02-A05F
  signs A12-R
  surfacing compositions A12-R09 L02-D09
Roasting coffee D03-D01D
Roasting, briquetting and sintering
  ferrous ore M24-A01A
  non-ferrous ore M25-A02
Roasting food D03-K01
Robotics, polymer processing by A09-D
Rocket fuel A12-T03C K04-C01
Rockets (polymer use) A12-T03
Rod formation (glass) L01-F02
Rodent repellent B12-N06 B14-B13 C12-N06 C14-B13
Rodenticide B12-N05 B14-B09 C12-N05 C14-B09
Rods, fishing A12-F01
Rods, welding M23-F
Roll bonding metals M13-H01 M23-E01
Rollers (polymer use) A12-H11
Rollers for rolling mills, manufacture of M21-A02A
Rollers, mixing of polymers on A11-A03+
Rolling
  glass L01-D02
  lubricants H08-D07 M21-A06
  metal stock M21-A
  webs of fabric F03-K01
Rolling mills M21-A
  coilers M21-A05
  components M21-A02
  control mechanisms and processes M21-A07
  cooling beds M21-A05
  feeding devices M21-A04
  sheet mills M21-A03B
  stands M21-A02
  strip, bar and wire mills M21-A03A
  take-off devices M21-A05
  tube and pipe mills M21-A03
Rolls - see Rollers
Roof
  artificial L02-D09
  felt F04-B02
  lighting A12-R04
Roofing (polymer use) A12-R05
Rooting compound C12-P08
Rooting compounds B12-P08 C14-U01D
Roots B04-A09D C04-A09D
  extracts B04-A10F C04-A10F
Ropes A12-P07 F04-A
Rosin A03-C02 B04-C03 C04-C03
  maleinised A10-E03 A10-E23
Rot-proofing of fabrics
  non-resinous A12-S05R F03-C02B
  resinous A12-G F03-C02B
Rotary
  drying J08-G05
  furnace J09-A03 L02-A02
  mixer J02-A02B
Rotary drilling H01-B03
  derricks H01-B03A1
  drill bits H01-B03C1
  drill collars H01-B03C2
  drill pipe H01-B03C3
  hoists H01-B03A3
  kelly H01-B03C4
  mud processing H01-B03A2
  rig floor equipment H01-B03A
  rotating equipment H01-B03A3
  valves/control equipment H01-B03B3
  drilling riser H01-B03C6
Rotational moulding of polymers A11-B04A
Rotenone B04-A07B C04-A07B
Rouges, abrasive L02-F02
Rubber (natural) A03-B B04-C03D C04-C03D
Rubber bands A12-P07
Rubber latexes A07-B01
Rubber vulcanisation A11-C02A
Rubefacient B12-L02 B14-R01 C12-L02 C14-R01
Rubidium catalysts N01-A
Rubidium compounds B05-A01B C05-A01B
  inorganic E33-H
  organic E05-A E05-A02
Rugs A12-D02 F04-D04
Runways
  compositions A12-R09
  signs A12-R
Rupturable container for photographic reagent G06-E03

Rust preventing paints A12-B04+ G02-A05E
Rusts treatment C14-A06R
Ruthenium
  alloys M26-B01
  production M25-G20
Ruthenium catalysts N02-E N02-E01
  for polymerisation A02-A06+
Ruthenium compounds B05-A03B C05-A03B
  inorganic E35-X
  organic E05-M E05-M02A
Rutile A08-E02 E35-K
  pigment filler G01-A08

S

Saccharomyces B04-F09C C04-F09C
Sachets A12-P06C
Sacks A12-P02
Safety
  airbags F04-E03A
  belts, fabric F04-E03B
  belts, transport A12-T04E
  clothing A12-C02 F04-C06
  devices for metal working M21-N03
  devices for polymer processing A09-D+
  devices, transport A12-T04E
  gloves A12-C02A
  helmets A12-C02B
Sail boards A12-F01
Salicylate therapy
  dalicylate therapy C12-D09
Saliva pumps D08-A04
Salmonella B04-F10A8 C04-F10A8
Salt (common)-(NaCl) B05-A01B C05-A01B E33-B
Salt baths, heat treatment of iron and steel M24-D02C
Salt, metal, formation during chemical modification of polymers A10-E21+ A10-E22+
Samarium compounds B05-A03B C05-A03B
  catalysts N03-A01
  inorganic E34-E02B
  organic E05-P
Sampling J04-C01
  devices for testing B11-C08C C11-C08C
SAN A04-C04B A04-D03
Sand casting (see also foundry moulding) M22-A
Sand filler for polymers A08-R06A
Sandpaper A12-A03 G04-B04
Sanitary
  napkins, towels A12-V03A D09-C02 F04-E04
  other products D09-C02B
  ware A12-R02
Sap (plant) produced by pressing B04-A07D4 B04-A09H C04-A07D4 C04-A09H
Saponified ethylene-vinyl acetate A10-E09+
Saponified/ saponification of polymers A10-E09+
Saponin (structure unknown) B04-A07E C04-A07E
Sarkomycin B02-S C02-S
Sauce D03-H01H
Sausages D02-A03C D02-A03D
Sawdust B04-A07D3 B04-A09G C04-A07D3 C04-A09G
  filler/reinforcing agent for polymers A08-R07
Sawing of plastics A11-A05+
SBR A04-B03+
Scale inhibition
  additives for polymers A08-S08
  in polymerisation vessels A10-G02
  in water systems D04-A03A
  use of polymers in A12-W11J
Scale removing see Scale inhibition
Scandium catalysts N03-A01
Scandium compounds B05-A03B C05-A03B
  inorganic E34-E01
  organic E05-L03 E05-L03A
Scar treatment B14-N17F C14-N17F
Scarfing (flame) M23-C
Scent - see Perfumes
Schistosomes B04-B02B B04-P01 C04-B02B C04-P01
Schistosomicide B12-B06 B14-B03B C12-B06 C14-B03B
Schizophrenia treatment B14-J01B3 C14-J01B3
Scintillator L03-G10S
Schottky contacts, manufacture in semiconductor processing L04-C11B
Scopolamine B04-A01 C04-A01
Scouring composition production G04-B08 D11-D04
Scouring of fabrics F03-B
Scrap recovery
  non-ferrous metal extraction M25-E
  polymers A11-C03+
  tyres A12-T01D
Scrap treatment for iron and steel production M24-A07A

Scrapie treatment B14-N16D
C14-N16D
Scratch resistant coating/
layer, photographic G06-A08
Screening
electromagnetic A12-E01A
high content B11-C10B
C11-C10B
Screening, photographic
dyes G06-A02
techniques G06-E01
Screens (coarse filters) for
paper-making pulp F05-A03
solids J01-K04
well equipment H01-C07
Screens for discharge tubes L03-C
fluorescent compositions L03-C02B
production L03-C04A
Screws
for extrusion A11-B07+
for mixing of polymer
forms A11-A03+
made of plastic A12-H12
Scutching fibres F01-A02
Sea farming A12-W04+
Sea food D03-A02
Sea water desalination D04-A
D04-B07F
Sea-island fibres A12-S05B
F01-E01
Sealants A12-R08
G04-B02
for refrigeration and ac J07-A10
for batteries A12-E06C
for joining glass L01-H07
Sealing
circuits into packages or
housings L04-F05
composition G04-B02
polymers A11-C01+
Seals A12-H08
battery A12-E06C
L03-E01D
ceramic-metal L02-J01C
glass-metal L01-H04A
lamp L03-C03A
packaging A12-P03
Seam welding
electric arc M23-D01A1
resistance M23-D02A2
Seamed metal tube production
M21-C
Seasoning of wood or timber F05-B
Seats for automobiles A12-T04B
fabric use F04-E03C
Seaweed B04-A07D5
B04-A08
C04-A07D5
C04-A08
artificial, e.g. for
preventing erosion F04-G
Sebacates plasticisers/
extenders for polymers A08-P04
Sebacic acid E10-C02D
E10-C02D2
condensant A01-E12
Seborrhea treatment B12-L05
B14-R02
C12-L05
C14-R02
Secondary growth inhibitor
(plants) C12-P09
Secondary growth inhibitors
(plants) B12-P09
C14-U01E
Secretin B04-J12
C04-J12
Security documents with
magnetic recording L03-B05H
Sedative B12-C08
B14-J01B2
C12-C08
C14-J01B2
Sedimentation of
particles in liquids J01-F01
solids for differential
separation J01-K03
waste water or sewage D04-A01B
D04-A01L
D04-B09
Sedimentation separation
in test B11-C08D
C11-C08D
Seeding agent for
polymerisation A02-D
Seeds B04-A07D2
B04-A09F
C04-A07D2
C04-A09F
coatings on A12-B09
coatings on, agricultural A12-W04B
edible, preservation of D03-A05
extracts B04-A10G
C04-A10G
germination inhibitor B12-P09
C12-P09
C14-U01E
husks B04-A07D2
B04-A09F
C04-A07D2
C04-A09F
meal B04-A07D2
B04-A09F
C04-A07D2
C04-A09F
protectant B12-N07
C12-N07
C14-U02
viability determination B12-K04
C12-K04
yield increasing B12-P03
C12-P03
C14-U01B
Seismic surveying H01-A01A
Selenide ceramics L02-H05
Selenium (alloy or compound)
photoconductor G06-F07A
Selenium catalysts N04-A
Selenium compounds
inorganic B05-B02C
C05-B02C
E31-G
organic B05-B01D
C05-B01D
E05-K
Selenium element B05-B02C
C05-B02C
E31-G
Self-bonded
Self-bonded non-woven fabrics
F02-C01B1
Self-extinguishing property
of polymers A09-A01
Semen B04-B02D
B04-F03
C04-B02D
C04-F03
Semi-finished materials of
polymers A12-S+
Semi-liquid application to
surfaces J02-C02
Semi-liquid freezing J07-B
Semi-permeable membrane A12-W11A
J01-C03
gas separation use J01-E03E
waste gas treatment use J01-E02C
Semi-solid lubricant H07-D
Semicarbazone B10-A13D
C10-A13D
E10-A13B
E10-A13B1
E10-A13B2
Semiconductive
oxide compositions L02-G07D
silicon L04-A01
Semiconductor devices A12-E07C
L04-E
assemblies L04-F
assembly on a substrate L04-F01
electrical fuses L04-C10A1
lead frames L04-C23
photographically
produced G06-D06
polymer use in A12-E07C
substrates L04-C22
testing, process monitoring
and control L04-C18
Semiconductor layer
doping by diffusion L04-C02D
doping by gaseous,
liquid or solid contact L04-C02C
doping by ion injection L04-C02B
growth by chemical
vapour deposition (CVD)
and plasma deposition L04-C01B
growth by epitaxial L04-C01
growth by liquid epitaxy L04-C01A
vapour deposition L04-C01C
Semiconductor manufacture
cathode sputtering L04-D02
diffusion apparatus L04-D06
heat treatment furnaces L04-D05
ion and plasma deposition
apparatus L04-D04
liquid phase deposition

apparatus L04-D03
ohmic contacts L04-C11A
vapour deposition apparatus L04-D01
Semiconductor processing L04-C
aligning masks and layers L04-C06D
aluminium alloy antireflective coating L04-C05A
conductive tracks L04-C10C
amorphous layers L04-C03
ancillary equipment L04-D10
attaching lead frames L04-C24
buried layer production L04-C10G
by liquid phase etching L04-C07C
by plasma etching L04-C07D
conductive + insulating lay formation L04-C14
conductive layer conversion to semiconductor or insulator L04-C10H
conductive layers and track manufacture L04-C10
conductive polycrystalline silicon layers L04-C10B
conductive tracks, circuits L04-C10A
contacts, terminals, electrodes manufacture L04-C11
conversion of insulating layers to semiconducting or conducting layers L04-C12F
copper alloy conductive tracks L04-C10D
doping of layers and region L04-C02
electrodes L04-C11C
electrophotography G06-D06A
encapsulation L04-C20
encapsulation, polymers in A12-E04 A12-E07C
etching L04-C07
forming layers with simultaneous doping L04-C02A
forming through holes between conductive layers L04-C13A
furnace furniture, crucible boats, wafer supports etc. L04-D09
glass passivation layers L04-C12D
groove formation, dicing, chip cutting L04-C07E
heat sinks L04-C25
heat treatment L04-C16
hole and window manufacture L04-C06C
insulating and passivating layers L04-C12
ion beam etching L04-C07A
isolation of mesas, islands L04-C12C
LOCOS L04-C12C3
marking defective devices L04-C19
mask design and manufacture L04-C06A
mask design and manufacture, photographic G06-D06A G06-E02
masking + patterning + etching L04-C08
masking and resist material L04-C05
masking and resist materials, photographic G06-D06 G06-E02
masking and resist materials, polymeric resists A12-E07C A12-L02B2
microwelding L04-C17C
nitride insulating layers L04-C12B
other conductive tracks L04-C10F
oxide layers L04-C12A
patterning techniques L04-C06
pellicle design/manufacture L04-C06A1
phase change materials L04-C28
photoetching L04-C07G
plastics passivation layers A12-E07C L04-C12E
precious metal (alloy) conductor tracks L04-C10E
resin encapsulation A12-E04 A12-E07C L04-C20A
resist coating apparatus L04-D08
resist coating apparatus, photographic G06-D06A G06-E04
resistor L04-C12G
resists L04-C06B
resists, photographic G06-D06A
sealing devices into housing L04-C21
semiconductor-on-insulator L04-C12C1
soldering apparatus L04-D07
soldering techniques L04-C17A
temporary bonding L04-C17D
terminal posts L04-C11D
thermocompression bonding L04-C17B
through hole connection formation L04-C13B
trench isolation L04-C12C2
vapour phase etching, dry etching L04-C07B
washing, rinsing and drying of wafers etc. L04-C09
Semiconductors L04
ancilliary processes L04-X
apparatus L04-D
bonding processes L04-C17
clean room L04-X04
encapsulation, moulds and handling equipment L04-C20C
encapsulation, moulds and handling equipment, polymers in A12-E04 A12-E07C
image sensors L04-E05A
infrared detectors L04-E05C
integrated circuit encapsulation with lead frame assemblies L04-C20D
integrated circuit encapsulation with lead frame assemblies, polymers in A12-E04 A12-E07C
lasers L04-E03B
light receiving and detecting devices L04-E05
recycling L04-X06
Fluorescent and luminescent materials for semiconductor manufacture L03-G09G
materials L04-A
memory elements L04-E15
Metal coatings, processes M13-F03A
photodiodes L04-E02A
photoresistors L04-E05G
phototransistors L04-E01G
resistor L04-C12G
single crystals manufacture L04-B
switches L04-E08
wafer production slicing, polishing etc. L04-B04
waste processing L04-X02 L04-X03
water production L04-X01
Semipermeable property of polymer A09-A09
Senile dementia treatment B12-C10 B14-J01A4 C12-C10 C14-J01A4
Senility treatment B12-G04A B14-J01A4 C12-G04A C14-J01A4
Sensitisers for explosives K04-G
Sensitisers, photographic
chemical G06-H01
optical G06-H07+
spectral G06-H07
spectral, cyanine G06-H07A
spectral, merocyanine/neutrocyanine G06-H07B
spectral, oxanol G06-H07C
spectral, pyrylium G06-H07D
Sensors (electrical) A12-E13
Sensors, non-electrical A12-L04B
Separation B11-B C11-B E11-Q
by adduct formation (petroleum) H02-D02
methods for testing or diagnosis B11-C08B C11-C08B
of gases by liquefaction or solidification J07-D02
of particles from gases J01-G
Separation of
of isotopes J01-J K08-X01
of particles from liquids J01-F
of solids J01-K
Separators
oil production H01-D04
primary and secondary cells A12-E06B L03-E01A
fuel cell L03-E04G
Sephadex ® A03-A+ B04-C02C C04-C02C
Sequestering agents
adding to water D04-A03
in detergents D11-B06
polymer additives A08-A07
Sermatophytes B04-A08C C04-A08C

Serotonin antagonist B12-G01 B14-J04 C12-G01 C14-J04
Serotoninergic B14-J03 C14-J03
Serum
albumin C04-B04D2
blood C04-B04D4
Servicing oil and gas wells H01-C10
Set accelerators for concrete manufacture L02-D14
Setting
fibres with heat F01-H05
film with heat A11-B02C
Severing of
fabrics (including webs) F03-K03
polymers A11-A05+
Sewage B04-B04B C04-B04B
treatment A12-W11+ D04-A01J D04-B01 E11-Q
Sewing F02-F01+
accessories F02-F01B+
fasteners, button(holes) etc. F02-F01A1
threads F01-E F02-F01
to make specific goods F02-F01A+
Sewing machine
control devices, micro-computers etc. F02-F01B1
feed or removal or trimming F02-F01B2
thread cutter F02-F01B2
workpiece feeder F02-F01B2
Sexual dysfunction treatment B14-P02 C14-P02 B14-P04 C14-P04
Female sexual dysfunction B14-P04B C14-P04B
Male sexual dysfunction B14-P04A C14-P04A
Shades, lighting (polymer use) A12-L03
Shadow mask for CRT L03-C03B
Shampoos A12-V04A B12-L05 B14-R02 C12-L05 C14-R02 D08-B04
Shape and form of coatings G02-A07
Shape memory property A09-A05B
Shaped glass manufacture by sol-gel process L01-E08
Shaping
ceramics and refractories L02-A03
dough D01-A02
polymers A11-B+ A11-C+
Shaving
brush A12-V04
soapless D08-B07
Shear precipitating fibres and fibrils F01-C07
Shearing of
fabrics F03-A
plastics A11-A05
Sheath-core fibres A12-S05B F01-E01
Sheathings for electrical conductors and cables A12-E02+ G02-A05A
Sheaths, contraceptive A12-V03B
Shedding mechanisms for looms F02-A02
Sheet metal working M21-E
bending and corrugating M21-E01
deep drawing M21-E03
flanging M21-E01
pressing and punching M21-E02
sheet mills (metal rolling) M21-A03B
spinning M21-E03
stamping M21-E02
straightening M21-E01
stretch forming M21-E03
structure manufacture M21-E04
Sheet moulding compounds A12-S
Sheets A12-S07+
casting process A11-B04C
corrugated and discontinuous paper and cardboard F05-A04D
extrusion of A11-B07A
forming of A11-B08+
heat sealing/welding involving A11-C01A1
laminated A12-S07A
laminating (excl. A11-B09A+) A11-B09D
reinforced plastics A12-S08A
transfer A12-W07F1
Sheets, bed linen A12-D01 F04-D01
Shell moulding of polymers A11-B04B
Shell moulds (polymer use) A12-A02
Shellac A03-C02 B04-B04M C04-B04M
Shells K03-A01
Shielding
for nuclear reactor K05-B02
from nuclear radiation K07-A02
Ships (polymer use) A12-T+
Shirts A12-C03 F04-C03
Shiitake cultivation D05-A04C
Shock
anaphylactic shock treatment B14-G02B C14-G02B
electro-convulsive therapy B12-D10 B14-J06 C12-D10 C14-J06
plasma substitute treatment B12-H06 B14-F11 C12-H06 C14-F11
septic shock treatment B14-S06 C14-S06
toxic shock treatment B14-S06 C14-S06
traumatic shock treatment B14-S07 C14-S07
treatment general B14-S05 C14-S05
treatment of electric shock B14-S05 C14-S05
treatment using electric shock (ECT) B14-J06 C14-J06
Shock absorbers A12-H09
Shock proofness of polymers A09-A05A
Shoes A12-C04 F04-C05
production of F04-F02
Showers (polymer use) A12-R02
Shrink packages A12-P04
Shrink proofing of fabrics
non-resinous A12-S05R F03-C04
resinous A12-G02 F03-C04
Shrink resistant textile finishes A12-G02
Shrinkability, thermal of polymers A09-A01A
Shrinking A11-B02E
of fibres F01-H05
of films A11-B02E
textiles F03-A02
Shutdown of reactor controlled K05-B06A1
Shutdown of reactors K05-B06A
emergency K05-B06A2
Shutters for windows (polymer use) A12-R02A
Shuttle weaving F02-A04A
Shuttlecocks A12-F01B
Shuttleless weaving F02-A04B
Shuttles F02-A05
Siccatives A08-C+ A08-D+ G02-B04
Sickle cell anaemia treatment B14-F03 C14-F03
Side-by-side fibres A12-S05B F01-E01+
Sidewalls for tyres A12-T01+
Siding for buildings A12-R+
Sieve cloths A12-H04 F04-E05+
Sieving of solids J01-K04
Signalling pathway proteins B04-N13 C04-N13
Signs (polymer use) A12-W03
road A12-R

Silage B04-A07D
B04-A09
C04-A07D
C04-A09

Silane adhesion improver or coupling agent A08-M01D

Silanes
inorganic E31-P06
organic E05-E

Silanes condensants/ monomers A01-A03

Silanols condensants A01-A03

Silastic ® A06-A+

Silica L02-G01B
alumina mixtures E31-P02
bound to enzymes D05-A01A5
catalyst support A02-D
fillers A08-R06A
G01-A06
gel sorption (petroleum processing) H02-B02
glass compositions, high L01-A05
glass compositions, low L01-A04
production or modification E31-P01
L02-G12E
use E31-P03
with alumina catalyst N01-C01
N01-C01A
N01-C01B
without alumina catalyst N01-D
N01-D02

Silicate additive for detergents D11-B11
inorganic D11-B11A

Silicate filler A08-R06B
G01-A06

Silicic acid filler A08-R06A
G01-A06

Silicides
abrasive L02-F03
ceramic L02-H02B3
hard alloy M26-B12

Silicon (element) B05-B02C
C05-B02C
E31-P06
B04-C03F
C04-C03F

Silicon catalysts N01-D
N01-D03

Silicon chip devices A12-E07C
made photographically G06-D06

Silicon containing
adhesion improver for polymers A08-M01D
as part of an organic ring E05-E01A
condensants A01-A03
A08-C+
crosslinkers A08-D05
A08-R06+
fillers G01-A06
Inert compounds D11-B11
D11-B11D2
inorganic compounds B05-B02C
C05-B02C
inorganic compounds excluding silica and silicates E31-P06
monomers A01-A03
organic compounds B05-B01A
C05-B01A
organic compounds with Si-C bond (aliphatic or alicyclic) E05-E02
organic compounds with Si-C bond (aromatic) E05-E01C
organic compounds with Si-C bond (heterocyclic) E05-E01B
organic compounds without Si-C bond E05-E03
pigments G01-A06
polycondensates A06-A+
Reactive silicon compounds D11-B11B1

Silicon incorporated/ incorporation by polymer modification A10-E22A

Silicon polymer coatings A12-B01C
G02-A01A

Silicone oils A06-A+

Silicone resins A06-A+
A06-A00E1
adhesives G03-B01
applications A06-A00E+
compounding A06-A00B
fabrication A06-A00C
paints A06-A00E1
G02-A01A
production A06-A00A
treatment A06-A00D

Silk A03-C01
B04-B04A
B04-N02
C04-B04A
C04-N02
dyeing/printing F03-F02
screen stencil G05-A04
treatment to obtain natural fibres, chemical F01-B01
treatment to obtain natural fibres, mechanical F01-A01

Siloxane polymers A06-A+

Silver
alloys M26-B01
electrodeposition M11-A05

Silver alloy
contacts L03-A01A1

Silver catalysts N02-E
N02-E03

Silver compounds B05-A03B2
C05-A03B2
inorganic E35-B
organic E05-M
E05-M03B
use in radiation sensitive system (excluding halides) G06-F

Silver halide (black and white film)
bleaching, fixing G06-G02
developing G06-G01
fixing G06-G02
other process G06-G04
stabilisation G06-G03

Silver halide containing radiation sensitive system G06-F01+
core-shell emulsion G06-F01B
tabular grain emulsion G06-F01A

Silver oxide electrodes for batteries L03-E01B7

Silver production M25-G22

Silver recovery from photographic processing solutions G06-E

Silver removal from waste water D04-B05
D04-B05A

Silylation reactions E11-F10

Singeing of fabric or textiles F03-A

Single colour diffusion transfer material G06-C10+

Single crystals J04-A04
growing L02-A09
growth by Czochralski, Bridgman methods L04-B01

Single crystalline alloy M26-C04

Single nucleotide polymorphism B04-E09
C04-E09

Sinks A12-R02
cleaner D11-D01E

Sintering
by open furnace apparatus J09-A04
ceramics L02-A04
coating of (or on) metal M13-H02
ferrous ore M24-A01A
glass L01-G02
metal powder M22-H03B
non-ferrous ore M25-A02
of polymers A11-B14
polymer pore formation by A11-B06D

Sinusitis treatment B12-D07
B14-N04
C12-D07
C14-N04

Site specific release B12-M10E
C12-M10E
using liposomes B12-M10E1
C12-M10E1
using Antibodies B12-M10E2
C12-M10E2

Size control during extrusion of polymers A11-B07D

Sizes, polymeric, for fabrics or textiles
sizes, polymeric, for fabrics or textiles A12-G04

Sizing of paper
external F05-A06B
internal F05-A06C
F05-A06D

Sizing yarn F01-H06A

Ski wax G02-C

Skiing (polymer use) A12-F01

Skin (or extract) B04-B04E
C04-B04E

Skin care preparations A12-V04C
D08-B09
liquid D08-B09A1A
solid D08-B09A1B
Skin protection formulations A12-V04C
D09-E
Skin treatment B12-A07
C12-A07
acne B14-N17D
C14-N17D
burns B14-N17A
C14-N17A
cancer B14-H01W
C14-H01W
cosmetics B14-R01
C14-R01
emollient B14-R01
C14-R01
general B14-N17
C14-N17
lightening B14-R01
C14-R01
wart B14-N17
C14-N17
whitening D08-B01D1
wound B14-N17B
C14-N17B
Skins (hides) treatment
chemical D07-B
physical/mechanical D07-A
Skirts, clothing A12-C03
F04-C03
Skis A12-F01
Skylights A12-R04
Slags
cement L02-C03
preparation L02-B03
treatment in iron and steel manufacture M24-A07B
treatment of ferrous melts M24-C07
Sleep inducing B12-C08
B14-J01B2
C12-C08
C14-J01B2
Sleeping bag A12-D01
Sleeve, bobbins F01-H03A
Slicing, polishing
semiconductor wafers L04-B04
Slide fastener for clothing A12-C03
F04-C04
fabrication of F04-F01
sewing of F02-F01A1
Sliding contacts L03-A01A4
Slip agent additive for polymers
A08-M07
Slitting film to form fibres A11-B02
F01-C05
Slitting of polymers A11-A05+
Sliver drawing of fibres F01-F02
Slivers
feeding of F01-F04
Slub yarn F01-E
Sludges
dewatering D04-B10A
fermentation D05-A04A
pyrolysis D04-B10B
treatment of non-ferrous metal derived M25-E01
Slugicide B12-N04
B14-B12
C12-N04
C14-B12
Slurries of polymers A12-S
Slurry coatings G02-A07A1
Slurry explosives K04-E01
Slurry treatment, non-ferrous metals M25-E01
Slush moulding of polymers A11-B04B
SMC A12-S
Smectic (liquid crystal property of polymer) A09-A02A
Smoke B12-M01C
C12-M01C
alarms, detectors A12-R02
generation K04-C
inhibitor for polymers A08-F
Smoked sheet (natural rubber) A03-B
Smooth muscle relaxant B12-E07
B14-J05A
C12-E07
C14-J05A
Smoothing, ironing of textiles F03-J02
SMR A03-B
Smut treatment C14-A06S
Snake venom C04-B04G
Snake-cage polymer A07-A+
Snow chains A12-T04E
Snow production, for special purpose J07-B02
SNP B04-E09
C04-E09
Soaking pits for
ferrous metal M24-D04A
ingots M21-N04
Soap
additive for polymers A08-S05
H08-E07
polymer use in A12-V04+
Soap detergent compositions D11-C
liquid soaps D11-C01C
Liquid soap type (hand washing compositions) D11-D07F
soap bars D11-C01A
soap powders D11-C01B
soap with non-soap detergents D11-C02
Socket (polymer use)
electric A12-E+
pipe A12-H02C
Socks A12-C03
F04-C02
Soda lime glass L01-A01A
Sodium bicarbonate E33-D
Sodium bromide E33-B
Sodium carbonate E33-D
Sodium carboxylmethyl cellulose A10-E21A
Sodium catalysts N01-A01
Sodium chloride E33-B
in soil neutralisation B12-N08
C12-N08
C14-T01
Sodium compounds B05-A01B
C05-A01B
inorganic E33-S
organic E05-A
E05-A02
Sodium fluoride E33-B
Sodium halide E33-B
Sodium hydroxide E33-A
electrolytic production E33-A01
production E33-A02
use E33-A03
Sodium incorporated/ incorporation in polymers A10-E21+
Sodium iodide E33-B
Sodium nitrate E33-E
Sodium oxide E33-A
Sodium Oxide E33-A04
Sodium persulphate E31-E03
catalyst for polymerisation A02-A01
crosslinker for addition (co)polymers A08-C05
crosslinker for other polymers A08-D
redox polymerisation catalyst A02-A03
Sodium sulphate E33-C
Sodium sulphite E33-C
Soft furnishings A12-D01
F04-D
Softeners for fabrics A12-S05S
D11-B15
F03-C05
polymeric A12-G
F03-C05
Soil consolidation L02-D12
in mining A12-W10C
polymer use A12-A02
Soil fumigant B12-N07
C12-N07
C14-U02
Soil improvers A12-W04B
B12-N08
C12-N08
Soil improving C14-T01
general C14-T
Soil nutrients
inorganic B12-N09
C12-N09
C14-T03
others B12-N10
C12-N10
C14-T04
Soil resistant textile finishes
non-resinous A12-S05R
F03-C02
resinous A12-G03
F03-C02
Soil stabilisation, consolidation A12-A02
in mining A12-W10C

Soil suspending agent for detergents D11-B05
Sol gel processes
ceramic manufacture L02-A02A
Sol-gel process for
glass manufacture L01-C06
shaped glass manufacture L01-E08
shaping glass by unspecific processes L01-F05
Solar
cells (electrical) A12-E11B
L03-E05B
heat collectors A12-R02B
J08-D
panels A12-R02B
Solder glass L01-H03
Soldering M23-A
apparatus M23-A03
apparatus for semiconductor L04-D07
contacts or electrical components L03-A01B6
flux A12-W12F
M23-A02
flux removers D11-D01B2
metal compositions M23-A01
methods M23-A04
printed circuits L03-H04E6
semiconductors L04-C17A
testing M23-A06
together, to a substrate or in a circuit L04-F02
Soles A12-C04
Solid food, testing and monitoring D03-K04
Solid lubricant H07-D
Solid oxide electrolyte cells L03-E04A
Solid personal face and body wash D08-B09A2B
Solid skin care formulations D08-B09A1B
Solidified gases, vessels for J06-B
Solidifying gases J07-D01
for separation J07-D02
Solids separation J01-K
by electrostatic or magnetic process J01-K02
by flotation J01-K03
by sieving, screening J01-K04
using liquids, pneumatic tables or jigs J01-K01
Solubilisers B12-M09
C12-M09
for detergent compositions D11-B16
Soluble materials for pore formation of polymers A08-B04
Solution (co)polymerisation A10-B04
Solution formation (excluding by polymerisation) A11-A03+
Solution graft copolymerisation A10-C03C
Solution mining (non- ferrous metal extraction) M25-B
Solution, coating polymer onto substrates A11-B05D
Solutions B12-M07
C12-M07
of polymers A12-S
Solvent auxiliary B12-M09
C12-M09
Solvent based lacquers A12-B01B
Solvent dyeing F03-F13+
of cotton or regenerated cellulose F03-F13A
of other fibre substrates F03-F13B
Solvent extraction B11-B
C11-B
H02-C
J01-C01
of non-ferrous metals M25-B04
solid-liquid extraction J01-C01A
Solvent in detergent compositions D11-B16
Solvent recovery/removal from polymer A10-G01A
Solvent vapour recovery from gases J01-E01
Solvents
for gas storage J06-B06
for polymers A08-S02
petroleum products H08-D03
Solvents for incorporating agents in photographic layers G06-H19
Somatomedins B04-H06H
C04-H06H
Somatostatin B04-J10
C04-J10
Somatotrophin B04-B02D4
B04-J05J
C04-B02D4
C04-J05J
Somatotropin-releasing factor B04-J09
C04-J09
Sonosensitizers B14-H06D
C14-H06D
Soporific B12-C08
B14-J01B2
C12-C08
C14-J01B2
Sorption (petroleum processing) H02-B
Sorption-type refrigeration J07-A02
Sound insulation A12-R06
boards L02-D15B
foam use in A12-S04B
in buildings A12-R06
in vehicles A12-T04B
polystyrene foam use in A12-S01A
polyurethane foam use in A12-S02F
Soup D03-H01H
Soya beans
oil from B04-B01C1
C04-B01C1
D10-A
protein from D03-F02
Space vehicles A12-T+
Spaghetti D01-B02E
Spandex ® fibres A05-G+
A12-S05D
F01-D07
dyeing/printing F03-F10
Spark erosion M23-D06
Sparking plug L03-H05
Spasmogenic B12-E05
B14-J05C
C12-E05
C14-J05C
Spasmolytic B12-E04
B14-J05D
C12-E04
C14-J05D
Spastic treatment B12-E02
B14-J05D
C12-E02
C14-J05D
Special amorphous form B12-M11H1
C12-M11H1
Special dietary requirement foods e.g. diabetic, gluten free D03-H01T5
Special form catalyst N06-C
Special paper and carboard types F05-A06+
Speciality product (petroleum) H08-D
Spectacles
frames A12-L03
lens A12-L02A
A12-V02A
Spectral analysis J04-B01A
optical spectroscopy J04-B01A2
GC-MS J04-B01C5A
mass spectrometry J04-B01A1
Spectral sensitiser G06-H07+
cyanine G06-H07A
merocyanine G06-H07B
neutrocyanine G06-H07B
oxanol G06-H07C
pyrylium G06-H07D
Spectrophotometric tests B11-C07B2
C11-C07B2
Spectroscopy (mass) testing B11-C08A
C11-C08A
Sperm B04-B02D
B04-F03
C04-B02D
C04-F03
Sperm ejaculation inhibitors B12-K03
B14-P01A
C12-K03
C14-P01A
Spermaceti oil B04-B01C2
C04-B01C2
Spermicide B12-K03
B14-P01A
C12-K03
C14-P01A
Spheres E12-A13
Spheroidal graphite cast iron production M24-C05
Spike for fertiliser B11-C
C11-C

Spin dryer for laundering fabrics F03-J01
Spin dyeing F03-F30
Spin finishes for fibres F01-H06+
Spin-bonding non woven fabrics F01-C+ F02-C02
Spinal cord disease treatment B12-E02 B14-N16 C12-E02 C14-N16
Spindles, textile (general) F01-G F01-H01
Spinneret(te) A11-B15A F01-C01
Spinning A11-B15+ F01-C08
  artificial filaments, chemical features, general F01-D
  automated yarn system F01-G04
  die design A11-B15A
  dry A11-B15C F01-C08A
  flash A11-C05C1
  heads A11-B15A
  melt A11-B15B F01-C08B
  melt, high speed A11-B15B1 F01-C08B1
  open-end F01-G05
  optical glass fibres F01-C07E F01-D09B F04-G01 L01-F03G
  ring F01-G01
  ringless F01-G02
  sheet metal M21-E03
  wet A11-B15C F01-C08C
Spirella B04-B02B3 B04-F08 C04-B02B3 C04-F08
Spiropyran, dye precursor E26-B
Spleen treatment B14-N15 C14-N15
Splicing of fibres F01-H03B
Splints A12-V03A D09-C04C
Splitting film to form fibres A11-B02 F01-C05
Sponge iron production M24-A03
Sponge, polymeric A12-S+
Spoons A12-D03
Sports
  areas A12-F01A
  equipment A12-F01+
  goods, foam use in A12-S04D
Spot welding, resistance M23-D02A3
Spray booths
  cleaning/maintenance G02-A06A
  Spray detergent/cleaning D11-D02C
Spray drying J08-G06
  purification of polymers by A10-G01+
Spray steel refining M24-B02E
Spraying J02-C01
  coating with polymer by A11-B05B1
  deodorization D09-B01B
  metal M13-C
Spreading, coating with polymer by A11-B05+
Springs A12-H09
Sprouting inhibitor (plants) B12-P09 C12-P09 C14-U01E
Sprues A11-B12+
Spun bonded fabric A12-S05G F02-C01
Spunlacing of non-woven fabric F02-C02F
Sputter coating of
  metal M13-G
  metal, apparatus including target metals M13-G02
  metal, processes M13-G01
  polymer with metal A11-C04B1
Sputtering
  of ceramics L02-A02B
Squeeze bottles A12-P06A
Stabilisers A08-A+ B12-M06 C12-M06
  antioxidant A08-A06
  antiozonant A08-A05
  heat A08-A04
  heat, metal containing A08-A04A
  ionising radiation A08-A02
  light or U.V. A08-A03
  multifunctional A08-A01+
Stabilisers for
  addition polymers A08-A01A
  condensation polymers A08-A01B
  cosmetics D08-B11
  detergents D11-B12
  earth A12-A02
  explosives K04-G
  fabrics F03-C07
  food (chemical) D03-H01Q
  photographic developers and emulsions G06-H03
  photographic images G06-H11
  polymeric foam, structural A08-S07
  polymers A08-A+
  polyolefins A08-A01A1
Stabilising after silver halide development (black and white photography) G06-G03
Stabilising other colour development (photography) G06-G13
Stain resistor for detergents D11-B05
Staining of wood F05-B
Stairs, staircases A12-R02
Stamping of
  paper F05-A05B
  polymers A11-C04C
  sheet metal M21-E02
Stannic, stannous - see Tin
Staphylococcus B04-B02B1 B04-F10B3 C04-B02B1 C04-F10B3
Staple fibres A12-S05E F01-E09
  production by cutting F01-F
Staple yarn F01-E09
Starch A03-A+ B04-C02B C04-C02B D06-H01
  acrylonitrile graft co-polymer A03-A+ A04-D03+
  as detergent additive D11-B10
  modified B04-C02B3
  modified C04-C02B3
  processing raw material D06-A
  removal from waste water D04-B04
Static electricity, application of electro (in)organic material L03-H04B
Stators for electric motors (polymer use) A12-E08B
Steam condenser J08-A
  auxiliary system J08-A05
  direct contact J08-A02
  indirect contact J08-A01
Steam curing concrete L02-D04
Steam distillation, polymer- purification by A10-G01+
Steam raising plant (nuclear) K06-A
Steaming
  coffee D03-D01D
  tea D03-D02D
Stearates of metal as lubricants/mould release agents A08-M03+
Stearyl acrylate
  (co)polymers A04-F06+
  monomer A01-D10B
Stearyl methacrylate
  (co)polymers A04-F06+
  monomer A01-D10B
Steel alloy M27-A04
  treatment M27-B04
Steel filler/reinforcing agent for polymers, including wires or cords A08-R05
Steel melt treatment M24-C
  alloying of ferrous melts M24-C08
  apparatus M24-C09
  decarburising M24-C06
  deoxididising M24-C02
  dephosphorising, desulphurising M24-C01
  inoculation, spherioidising M24-C05
  killing, balancing M24-C03
  removing other impurities M24-C04
  using slags or fluxes M24-C07
Steel processing M24-B02
  by converter process M24-B02C
  by crucible process M24-B02A
  by electro-process M24-B02D
  by hearth process M24-B02B

Steel production M24-A
analysis M24-A06
apparatus M24-A05
control M24-A06
laboratory method for refining M24-A06
liquid steel production M24-A03
metallothermic process M24-A04
scrap and slag treatment M24-A07
Stem cells B04-F02B C04-F02B
Stem cell therapy B14-S21A C14-S21A
Stencils A12-W07+
printing G05-A04
Stent B11-C04A1 C11-C04A1 D09-C01F
Stentering of
fabric F03-A02+
polymer A11-B02+
Stereochemistry B11-C01D C11-C01D
Stereographic moulding A11-B16
Stereolithographic moulding A11-B16
Stereospecific polymerisation catalyst excluding transition metal (compounds) A02-A08
Sterilisation
and hygiene, polymer use A12-V03C1
chemical method D09-A01
of alcoholic beverages D05-F
of animals B12-K03 B14-P01 C12-K03 C14-P01
of female animals B14-P01B C14-P01B
of insects B14-B07 C12-K03 C14-B07
of male animals B14-P01A C14-P01A
of paper making equipment F05-A04E
of plastics A11-C
of water D04-A02
or air D09-B
physical method D09-A02
by irradiation D09-A02A
Sterilisation of food D03-H02
Sterilising compositions, medical A12-V03C1
Steroid biosynthesis D05-C04
Steroid of known structure B01 C01 E01
with aromatic ring "A" B01-A C01-A
with one double bond in ring "A" B01-C C01-C
production E01-P
with saturated ring "A" B01-D C01-D
with two double bonds in ring "A" B01-B C01-B
use E01-U
5 (10) or 1 (10) - Estrenes B01-C11 C01-C11
5 (10) or 1(10) - Androstene B01-C11 C01-C11
5 (10) (or 1(10)) - Gonenes B01-C11 C01-C11
5 (10) (or 1(10)) - Pregnene B01-C08 C01-C08
1 (or 2)-Androstene B01-C10 C01-C10
1 (or 2)-Estrenes B01-C10 C01-C10
1 (or 2)-Gonenes B01-C10 C01-C10
1 (or 2)-Pregnene B01-C07 C01-C07
3 (or 4)-Androstene B01-C09 C01-C09
3 (or 4)-Estrenes B01-C09 C01-C09
3 (or 4)-Gonenes B01-C09 C01-C09
3 (or 4)-Pregnene (excluding progesterone and testosterone) B01-C06 C01-C06
Steroids of unknown structure B04-B02D1 B01-E B04-J02 C01-E C04-B02D1 C04-J02 E01
production E01-P
use E01-U
Sticking plaster A12-V03A B12-M02D C12-M02D D09-C04B
Stilbene
fluorescent brightener E24-A01
photographic brightener G06-H09B
Stimulated emission of radiation G06-A09 L03-F
Stimulation, well A12-W10B
Stirrer D03-K07
Stirring of food D03-K07
Stirring of polymers A11-A03
Stitch-bonding for non-woven fabrics F02-C02A
Stockings A12-C03 F04-C02
Stomach disease treatment B14-E10B C14-E10B
Stones
artificial A12-R01
polymer coatings on A12-B08
Stoppers, for
containers A12-P03
metal casting M22-G03G1
Storage E11-S
batteries A12-E06+
containers A12-P+
control J06-B08
devices (heat) G04-B01
phosphor for X-ray material G06-A09
of gases and liquids J06-B
Storage of
gas J06-B
glass L01-J04
hydrogen E31-A02B
liquid J06-B
plastics/polymers A11-C06
Storage tank B11-C06 C11-C06
for oil or gas H03-E
of plastics A12-P05
Stoves for heating blast, iron and steel production M24-A05E
preheating, cooling or drying hot blast M24-A05E1
Straight chain olefins
monomer A01-D13
polymers A04-G+
polymers, polyethylene (HDPE) A04-G02+
Straightening sheet metal M21-E01
Stranding of fibres F01-H01
Strapping (packaging use) A12-P07
Straw B04-A07D4 B04-A09H C04-A07D4 C04-A09H
extracts B04-A10J C04-A10J
Strengthening additives for concrete manufacture L02-D14B
Streptococcus B04-F10B4 C04-F10B4
Streptomyces B04-B02B2 B04-F10B5 C04-B02B2 C04-F10B5
Streptomycin B02-S C02-S
Stress relieving, ferrous metal M24-D02B
Stretch fabrics F02-G04+
Stretch films for packaging (polymer use) A12-P+
Stretch forming sheet metal M21-E03
Stretch-blow moulding of polymers A11-B10
Stretchers (polymer use) A12-V03
Stretching following extrusion of polymers A11-B07D
Stretching of
artificial fibre A11-B02B F01-C06
fabrics F03-A02
fibre A11-B02B F01-C06
film A11-B02A
polymers A11-B02+
Strips, dental D08-B08D
whitening D08-B14D

Strip mills (metal rolling) M21-A03A
Strippable coatings G02-A05
  polymeric A12-B+
Stripping agent or layer for photography G06-A05
Stripping, purification of polymer by A10-G01+
Stroke teatment B14-N16
C14-N16
Strontium catalysts N01-B
Strontium compounds B05-A01B
C05-A01B
  inorganic E34-D03
E34-D03C
  organic E05-B01
Stuffer-box crimping F01-H04A
Stuffings (non-woven) F02-C01
Styrenated polyesters A05-D02+
A08-C07A
Styrene E10-J02B
  (co)polymers with acrylonitrile A04-C04B
A04-D03+
  (co)polymers with acrylonitrile + butadiene A04-C03
  (co)polymers with butadiene A04-B03+
  (co)polymers with divinylbenzene A04-B10
A04-C04
  (co)polymers with ethylene-butylene (block terpolymer) A04-C04
A04-G04
A04-G06+
  (co)polymers with isoprene A04-B07
A04-C04
  (co)polymers with others A04-C04
  crosslinking agent for addition (co)polymers A08-C07A
  crosslinking agent for other (co)polymers A08-D
  homopolymer A04-C02+
  monomer A01-D03
Styrene polymer - see also Polystyrene
  adhesive A04-C+
A12-A+
G03-B02D3
  paint, varnish lacquer A04-C+
A12-B+
G02-A02D4
Styrene substituted by
  alpha methyl E10-J02B
  monomer A01-D03
  polymer A04-C05
Styrene sulphonic acid
  (co)polymers A04-C
  monomer A01-D02
Styrenes optionally substituted A04-C+
Styrenes, halo-substituted
  (co)polymer A04-C
Styropor ® A12-S01+
Styryl dye E25-B
Subbed photographic film A12-L01
G06-A01
Subbing agent
  for polymers A08-M01+
  photographic G06-A01
Sublimation J01-A04
  dyeing/printing F03-F27
Submerged arc welding M23-D01A3
Substitution process B11-C01
C11-C01
E11-H
Substrates
  electrophotographic A12-L05D
G06-G05B
  for printed circuits, ceramic L03-H04E5
  for printed circuits, plastic A12-E07A
L03-H04E1
  manufacture for semiconductor devices L04-C22
Succinic acid E10-C02D
E10-C02D2
Succinic condensant A01-E12
Sucker growth inhibitor B12-P09
C12-P09
C14-U01E
Suede leather, artificial A12-B02A
F04-B01+
Sugar (sucrose) D06
E07-A02H
  cutting D06-E
  extraction from molasses D06-F
  invert D06-G
  juice treatment D06-B
  packing D06-E
  production of crystals D06-C
  raw, material processing D06-A
  raw, processing of D06-C
  sorting D06-E
  yield in cane increasing B12-P04
C12-P04
C14-U01C
Sugars
  biosyntheis of D05-C08
  measurement of J04-B01B1
  other than sucrose D06-G
  other sugar derivative B10-A07E
C10-A07E
E10-A07E
  unmodified sugar B10-A07A
C10-A07A
E10-A07A
  Sugar acid B10-A07C
C10-A07C
E10-A07C
  Sugar alcohol B10-A07B
C10-A07B
E10-A07B
  production by fermentation D05-C17
  Sugar amine B10-A07D
C10-A07D
E10-A07D
  with known structure, heterocyclic B07-A02
C07-A02
E07-A02
  with known structure, non-heterocyclic B10-A07
C10-A07
E10-A07
  with unknown structure (mono or disuccharide) B04-D01
C04-D01
Suitcases A12-T
Sulfamic acid (or derivative)
  inorganic B05-C03
C05-C03
E31-H03
  organic B10-A08
C10-A08
E10-A08
  Sulfate, aliphatic E10-A09A2
  Sulfate, aromatic E10-A09A3
Sulfate ester detergents D11-A01F
Sulfate, cellulose A03-A03
B04-C02A3
C04-C02A3
D06-H
Sulfate, inorganic - see also specific cations B05-C05
C05-C05
E31-F
Sulfate, organic B10-A09A
C10-A09A
E10-A09A
Sulfated polymer A10-E24
Sulfation, sulfurisation of polymer A10-E24
Sulfenamide, organic B10-A08
C10-A08
E10-A08
Sulfenic acid (or derivative)
  organic B10-A09C
C10-A09C
E10-A09C
Sulfide ceramics L02-H03
Sulfides of mercury, cadmium and zinc L04-A03A
Sulfides, inorganic (general) B05-C05
C05-C05
  production E31-F02
  use E31-F04
Sulfinamide, organic B10-A08
C10-A08
E10-A08
Sulfinic acid (or derivative)
  organic B10-A09C
C10-A09C
E10-A09C
Sulfite, inorganic - see also specific cations B05-C05
C05-C05
E31-F
Sulfite, organic B10-A09A
C10-A09A
E10-A09A
Sulfohalogenated polymer A10-E12B
Sulfoisophthalic acid based saturated polyester A05-E05
Sulfoisophthalic condensant A01-E11
Sulfonamide, organic B10-A08
C10-A08
E10-A08
Sulfonated polymer A10-E12A

Sulfonated styrene- divinyl benzene copolymer A10-E12A
Sulfonation of styrene-divinyl benzene copolymer A04-B10, A04-C04, A10-E12A
Sulfonation process B11-C01, C11-C01, E11-H
by addition reaction E11-F09
for detergent preparation D11-D05
of polymers A10-E12A
Sulfone B10-A10, C10-A10, E10-A10
Sulfonic acid (or derivative) B10-A09B, C10-A09B, E10-A09B
anhydride E10-A09B1
detergents D11-A01B
ester E10-A09B1
Sulfonium compounds B10-A01, C10-A01
as disinfectant other than for food or air D09-A01B
organic E10-A01
Sulfonyl halide
inorganic B05-C05, C05-C05, E31-F
organic E10-A09B1
Sulfonylurea B10-A08, C10-A08, E10-A08
Sulfoxide B10-A10, C10-A10, E10-A10
Sulfur (elemental) B05-C06, C05-C06
production, from waste material E31-F01
production, other E31-F02
use E31-F04
Sulfur acid amide B10-A08, C10-A08, E10-A08
Sulfur catalysts N04-C
Sulfur compound activator A08-C02, A08-D
Sulfur concrete L02-D07
Sulfur containing acid, vinyl ester of
(co)polymers A04-A06
monomer A01-A
Sulfur containing inorganic compound removal from water D04-B07D
Sulfur containing organic detergent additive D11-B17
Sulfur containing vulcanising agent
for addition polymers A08-C04
for other polymer A08-D
Sulfur dioxide B05-C05, C05-C05, E31-F
(co)polymers A04-A06
monomer A01-A
Sulfur dioxide removal from water D04-B07D
Sulfur dyes E25-E
for dyeing/printing fibres F03-F24
Sulfur oxide B05-C05, C05-C05
production E31-F03
removal H06-C03C
use E31-F04
Sulfur oxyacid (or inorganic salt) B05-C05, C05-C05
production E31-F03
use E31-F05
Sulfur recovery from waste material E31-F01
Sulfur removal from catalysts E31-F01
Sulphur removal from waste material (catalytic) E31-F01D
Sulfur removal from waste material (non-catalytic) E31-F01E
Sulfuric acid (or inorganic salt) B05-C05, C05-C05
catalyst A02-A04
ester B10-A09A, C10-A09A, E10-A09A
production E31-F03
use E31-F05
Sulfurous acid (or inorganic salt) B05-C05, C05-C05, E31-F
Sulfurous acid ester B10-A09A, C10-A09A, E10-A09A
Sultam, dye precursor E26-B
Sultone, dye precursor E26-B
Sun screen agent B12-L08, B14-R05, C12-L08, C14-R05, D09-E01
Sunblinds A12-R02A
Sunflower oil B04-B01C1, C04-B01C1, D10-A
Sunglasses A12-C02
Sunscreen D09-E01
Super absorbents
polymer application in A12-W13
Superconductive devices L04-E09
polymer application in A12-E16
Superconductor L03-A01C
nanomaterials L03-A01C4
Support, catalyst A02-D
polymeric A12-W11K
Supports for
coatings forming the support on otherwise unsuitable material L03-B05L3
magnetic recording L03-B05L
metal L03-B05L2
polymeric A12-E08A+, L03-B05L1
polymerisation catalysts A02-D
Supports, photographic A12-L01, G06-B+
glass; other than specified below G06-B
metal G06-B03
paper G06-B02
polymeric G06-B01
Suppository (for polymer use in, see also A12-V01) B12-M08, C12-M08
Surf boards A12-F01
Surface active agents - see Surfactants
Surface colouring
agents A08-E+
of polymers A11-A01+
Surface hardening, ferrous metal M24-D02A
Surface modification/ modified polymer A10-E+
Surface treated polymers A11-C04+
Surface treatment of
concrete L02-D14
glass (coating) L01-G04
glass (colouring) L01-G05
glass (mechanical) L01-G06
glass fibres L01-F03A
metal by multistage chemical process M14-H
polymers A11-C04+
polymers, chemical A11-C04D
polymers, coating with non-polymeric material A11-C04B2
Polymers, embossing A11-C04C
polymers, material A11-C04B2
polymers, metallising A11-C04B1
polymers, painting A11-C04A
polymers, printing A11-C04A
polymers, treatment or irradiation A11-C04E
Surfaces, treatment of
optical glass fibres L01-F03A1
polymers, by corona discharge, plasma
Surfaces, pretreatment, for application of adhesives (see also A8-M01+ for adhesion improvers) G03-B03
Surfactants A08-S+, B12-M09, C12-M09
as detergents D11
for cosmetics D08-B13
for fabrics A12-S05S, F03-C05
for polymers A08-S+

polymer compositions use as A12-W12+
polymer compositions use as cleaning compositions (excluding W12A) A12-W12B
polymer compositions use as detergents for fibre/fabric A12-W12A
polymer compositions use as, others A12-W12C
removal from water D04-B06C
Surfactants (general) D11-A
Surfactants excluding cleaning/detergent compositions A12-W12C
anti-foaming agent A08-S03
anti-static agent A08-S04
emulsifier A08-S05
for fabrics F03-C05
protective colloid A08-S06
solvent A08-S02
swelling agent A08-S02
wetting agent A08-S05
H08-E07
Surge arresters L03-B04E
Surgical A12-V03
gloves A12-C02
A12-V03C1
gowns/masks D09-C04D
gowns/masks, fabric in F04-E04
product, textile use in F04-E04
sponge A12-V03
tape and dressings A12-V03A
D09-C04B
Surlyn ® A10-E21B
Suspended particles, separation from liquids J01-F
Suspenders F04-C04
Suspending agent B12-M09
C12-M09
for polymer A08-S+
Suspension B12-M14
C12-M14
Suspension formation (excluding by polymerisation) A11-A03
Suspension polymerisation A10-B05
involving condensation A10-D+
involving grafting by addition A10-C03B
Sustained release B12-M10A
C12-M10A
Sutures A12-V03
D09-D
fibre use in F04-E04
Swabs A12-V03A
D09-C04B
Sweetening (petroleum refining) H04-A01
Sweetening agent B12-J01
B14-E11
C12-J01
C14-E11
D03-H01A
Swelling agent for polymers A08-S02
Swimming pools A12-F01A
Swimming suits F04-C01
F04-C03
Switches, electrical A12-E07+
L03-B04A
Switches- semiconductor L04-E08
polymer use in A12-E07C
Sydnone B07-E04
C07-E04
E07-E04
Sylvine (KC1) B05-A01A
C05-A01A
E33-B
Sympathetic blocker B12-E06
B14-J02D
C12-E06
C14-J02D
Sympathetic depressants B14-J02D
C14-J02D
Sympathetic stimulant B12-E07
B14-J02C
C12-E07
C14-J02C
Sympatholytic B12-E06
B14-J02D
C12-E06
C14-J02D
Sympathomimetic B12-E07
B14-J02C
C12-E07
C14-J02C
Synergist B12-C09
B14-S09
C12-C09
C14-S09
Syntactic foams A12-W12
Synthetase B04-L08
C04-L08
agonists B14-L01A6
C14-L01A6
inhibitors B14-D10
C14-D10
Synthetases - see Ligases
Synthesis H06-A05
Synthetic growth medium C14-T01A
Synthetic food colorant D03-H01E2
Synthetic leather A12-B02A
F04-B1+
Synthetic pulp production F01-J02
F01-C07D
Syphilis treatment B12-A05
B14-A01A
C12-A05
C14-A01A
Syringe components B11-C02C
C11-C02C
Syringe disposal apparatus B11-C02D
C11-C02D
Syringes B11-C02
C11-C02
dental D08-A04
hypodermic B11-C02A
C11-C02A
needles B11-C02B
C11-C02B
polymer use A12-V03D
Syrup processing D06-C
Syrups of polymers systems A12-S
A12-W07F1

T

T(a)eniacide B12-B02 B14-B03C C12-B02 C14-B03C
T(a)enifuge B12-B02 B14-B03C C12-B02 C14-B03C
Table linen F04-D02
Tables A12-D01
Tablets A12-V01 C12-M11 E12-A09A
  detergent D11-D02A
  effervescent B12-M11J
  general B12-M11
  pressed B12-M11B
  with greater than one layer B12-M11K
  multi-layer B12-M10A3 C12-M10A3
Tabletting machine B11-C05 C11-C05
Tableware A12-D03
  glass, coatings on L01-G04E
Tachykinins B04-J14 C04-J14
Tackifier for polymers A08-M05
Tags, labels A12-P
Take off devices for
  knitting machines F02-B04
  metal working other than rolling mills M21-N01
  rolling mills M21-A05
Talc filler A08-R06B B04-D02 C04-D02
Tampons A12-V03A D09-C02A B12-M17 C12-M17
Tank cars and trucks (for oil products) H03-C
Tanks, drums (including linings) A12-P05
Tanning compositions D07-B
Tantalum catalysts N03-C N03-C03
  for poymerisation A02-A06
Tantalum compounds B05-A03B C05-A03B
  inorganic E35-N
  organic E05-N E05-N03A
Tapered fibres A12-S05A F01-E02
Tapes
  adhesive A12-A01
  electrical insulation A12-E03
  fabric F02-E02
  film use in A12-S06+
  magnetic A12-E08A1 L03-B05A
  packaging (strapping) A12-P
  teeth cleaning D08-B08D
  teeth whitening D08-B14D
Tapestries F02-E03
Tapeworm treatment B14-B03C C14-B03C
Tar in polymeric blend A07-A01A
Tar paint A03-C03 A12-B01D G02-A02A
Tar removal from water D04-B03
Tar sands production and treatment H01-D11
Tar-bonded refractory L02-E07
Tarpaulins F04-B
Tars A03-C03 B04-D02 C04-D02
Taste modifying D03-H01B+
  enhancement D03-H01B2
  masking B12-M20 C12-M20 D03-H01B1
Tatami A12-D A12-D01
Tautomerase B04-L07 C04-L07
Taxanes B06-A03A C06-A03A
TDI condensant A01-E02
TDI crosslinking agent
  for addition polymers A08-C09A
  for other polymers A08-D04A
Tea D03-D
  general D03-D02
Tea bags D03-D02A
Tea substitutes D03-D03B
Tear gas activity B12-C05 C12-C05
Tear strips for containers, packaging A12-P03
Technetium catalysts N03-E
Technetium compounds B05-A04 C05-A04
  inorganic E35-Y
  organic E05-M E05-M03
Tedlar ® A04-E10A
Teeth (dental) B04-B04E C04-B04E
  cleaning preparation A12-V04B D08-B08
  false A12-V02B D08-A03
  floss D08-B08E
  whitening general D08-B14+
  toothpaste, tooth powder D08-B14A
  mouthwash D08-B14B
  gels D08-B14C
  strips D08-B14D
Teflon FEP® A04-E09 A04-E10D
Teflon TFE ® A04-E08+
Television
  cabinets A12-D01
  tubes A12-E11A
Telluride ceramic L02-H05
Tellurium (element) B05-B02C C05-B02C E31-G
Tellurium catalysts N04-A
Tellurium compounds
  inorganic B05-B02C C05-B02C E31-G
  organic B05-B01D C05-B01D E05-K
Telogens (for telomerisation) A02-B
Telomerisation A10-B08
Temperature
  applications (electrical) A12-E10
  control devices A09-D+
  measurement (electrical) A12-E10
  sensitive compositions G04-B09
Temperature swing adsorption J01-E03J
Tendon, artificial D09-C01D
Tenebrescent materials G04-A01
Tennis A12-F01+
Tensile strength A09-A05
Tension devices F01-H08
Tentering of
  fabrics F03-A02
  plastics A11-B02+
Tents A12-F01
Terbium compounds B05-A03B C05-A03B
  catalysts N03-A02B
  inorganic E34-E02B
  organic E05-P
Terephthalic (acid or derivatives) condensant A01-E11
Terephthalic acid B10-C02 C10-C02 E10-C02C E10-C02C1B E10-C02C2B
Terephthalic acid derived saturated polyesters A05-E04+
Terephthalic acid polyester
  - see Polyester, saturated
Terminal posts for semiconductor devices L04-C11D
Terpenes or terpenoids B10-J02A C10-J02A
Terpene resins A03-C
Terpene-phenol resin A05-J
Terylene ® A05-E04+
Test equipment (petroleum refineries) H05-K
Test sampling devices B11-C08C C11-C08C

Testing B12-K04
C12-K04
batteries L03-E07
catalysts N06-D
J04-E10
cement and ceramics L02-A08
concrete L02-D08
electrical equipment use in A12-E13
fabrics F03-K02
fibres F01-H
for bacteria D05-H04
for fungi D05-H05
for plant disorders B12-K04D
C12-K04D
for substances other than for diseases B12-K04E
C12-K04E
fuel cells L03-E07
genetic D05-H09
glass L01-M
medical equipment use in A12-V03C2
method involving separation B11-C08D
C11-C08D
microbiological D05-H09
oil storage H03-X02
paper F05-A05A
polymers A09-C
refractories L02-A08
semiconductors L04-C18B
viruses D05-H06A
yarns F01-H

Testosterone B01-C05
C01-C05

Tests B11-C07
C11-C07
E11-Q

Tetrabromobisphenol A
condensant A01-E13
flame retardant A08-F04B

Tetracarboxylic condensants
aliphatic/alicyclic A01-E12
aromatic A01-E11

Tetracycline B02-T
C02-T

Tetrafluoethylene- trifluoro-nitrosoethylene copolymer A04-A04
A04-E09

Tetrafluoroethylene (TFE) E10-H02B
E10-H03A3
E10-H04A3
(co)polymers A04-E09
homopolymer A04-E08+
monomer A01-D12

Tetrahydrofuran (THF) B07-A02
C07-A02
E07-A02
(co)polymer based polyether A05-H05
condensant A01-E08

Tetrahydrophthalic condensant A01-E12

Tetrahydropyran B07-A02
C07-A02
E07-A02

Tetrahydropyridine B07-D04D
C07-D04D
E07-D04D

Tetramethylene glycol condensant A01-E14

Tetramethylthiuram disulphide accelerator for crosslinking agents
for addition polymers A08-C03
for other polymers A08-D

Tetraol condensants
alcohols A01-E14
phenols A01-E13

Tetraoxane condensant
(co)polymers A05-H02+
condensant A01-E09

Tetrazole B07-D13
C07-D13
E07-D13C

Tetron ® A05-E04+

Textile dyes A08-E03+
E02
F03-F16+

Textile finishes A12-G+
A12-S05+
F03-C+

Textile mechanical processing
crimping A11-B02D
F01-H04+
fibrillating A11-B02+
F01-C05
heat setting A11-B02C
F01-H05
melt blowing A11-C05A1
orienting A11-B02B
F01-C06
others A11-C05C
producing fabrics A11-C05A
F02+
stretching A11-B02B
F01-C06
twisting, winding A11-C05B
F01-H01
F01-H03+

Textile oils H08-D06

Textiles
carriers for microorganisms D05-A03A
nuclear applications to K09-F
polymer use in, (meth)acrylic ester (co)polymers A04-F06E2
F01-D08
polymer use in, (meth)acrylonitrile (co)polymers A04-D03B
F01-D02
polymer use in, (meth)acrylonitrile homopolymers A04-D02B
F01-D02
polymer use in, aramid A05-F05
F01-D03B
polymer use in, cellulose acetate A03-A02A
F01-D01
polymer use in, polyamide A05-F01E1
F01-D03
polymer use in, polyester A05-E01B
F01-D04
polymer use in, polyethylene A04-G02E1
F01-D05
polymer use in, polypropylene A04-G03E
F01-D05
polymer use in, polysaccharides, general A03-A01A
F01-D10
polymer use in, polyurethane A05-G01E1
F01-D07
polymer use in, polyvinyl chloride A04-E02E2
F01-D08
polymer use in, PVA A10-E09B
F01-D08
polymer use in, rayon, regenerated cellulose A03-A05A
F01-D06
polymer use in, silicones, siloxanes A06-A00E1
F01-D09

Textured fibres A12-S05C
F01-E01A
F01-E04

Texturing of fibres A11-B02D
F01-H04+

Thallium catalysts N03-G04

Thallium compounds B05-A01B
C05-A01B
inorganic E35-F
organic E05-D

Thebaine B04-A04
C04-A04

Theobromine B04-A06
C04-A06

Theophylline B04-A06
C04-A06

Theranostics B12-Q01
C12-Q01

Therapy K08-E02

Thermal
cracking H04-B01
heads (printing) G05-F02
L03-G10
nuclear reactor processes K05-A02
properties of polymers A09-A01A
reforming H04-C01
stabiliser A08-A04+
stability of polymer A09-A01A
toughening of glass L01-G03

Thermal conductivity agents A08-M09C
carbon-based A08-M09C1

Thermal (transfer systems (printing)) A12-W07F1

Thermal insulation
ceramics/glass use in, boards L02-D15B
ceramics/glass use in, ceramic oxides L02-G06
ceramics/glass use in, compositions L02-D15D
ceramics/glass use in, flexible sheet L02-D15C
ceramics/glass use in, panels L02-D15B

polymer use in, building and general A12-R06
polymer use in, foam A12-S04B
polymer use in, foam, polyurethane A12-S02F
polymer use in, pipes A12-H02D1
polymer use in, vehicles A12-T04B
Thermionic generator L03-E05
Thermistors L03-B01A2
Thermo-optical
device L03-G10
material L03-G09D
Thermochromic dye (general) E26
Thermocompression bonding of semiconductor L04-C17B
Thermocouple L03-E05A
Thermoelectric element L03-E
Thermoelectric generator L03-E05
Thermoelectric material L03-G09T
Thermoforming A11-B08+
Thermography A12-L05A
G06-F08+
Thermomagnetic layers in magnetic recording L03-B05F
other uses L03-G09M
Thermometer A12-L04
A12-V03D
Thermoplastic elastomer from poly(tetramethylene ether) glycol, diemthyl isophthalate and ethylene glycol A05-E03
A05-E09
A05-H05
Thermoplastic reinforced composites A12-S08E
Thermorubin B02-T
C02-T
Thermoset expanded, foams A12-S03
Thermostability of polymer A09-A01A
Thermotropic (liquid crystal property of polymer) A09-A02A
Thiadiazole B07-F03
C07-F03
E07-F03
Thiamine B03-B
B15-B01
C03-B
C15-B01
Thiamorpholine B07-F02
C07-F02
E07-F02
Thiaxanthene B06-B02
C06-B02
E06-B02
Thiazine B07-F02
C07-F02
E07-F02
Thiazole B07-F01
C07-F01
E07-F01
photographic brightener G06-H09D
Thick film
capacitors and pastes L03-B03C
capacitors and pastes, polymer use in A12-E07B
circuits L03-H04E4
circuits, polymer use in A12-E07A
resistors and pastes L03-B01C
resistors and pastes, polymer use in A12-E07C
Thick moulding compounds (TMC) A12-S
Thick-and-thin fibres F01-E02
Thickener for detergent compositions D11-B24
food D03-H01J
polymers A08-M06
Thickness control of float glass L01-D03C
Thienomycin B02-P
B02-T
B06-D04
C02-P
C02-T
C06-D04
Thiepin B07-B02
C07-B02
E07-B02
Thiet(an)e B07-B02
C07-B02
E07-B02
Thiin - see Thiopyran
Thiirane B07-B02
C07-B02
E07-B02
containing condensants A01-E07
Thio group formation in polymer A10-E24
Thioacetal B10-A23
C10-A23
E10-A23
E10-A23A
E10-A23B
Thioalcohol B10-E03
C10-E03
E10-E03+
Thioaldehyde B10-D01
C10-D01
E10-D01
Thiocarbonic acid ester B10-A11A
C10-A11A
E10-A11A
E10-A11A1
E10-A11A2
Thiocarboxylic acid B10-C01
C10-C01
E10-C01
amide B10-D02
C10-D02
E10-D02
ester B10-G01
C10-G01
E10-G01
Thiocyanate (organic) B10-A14
C10-A14
E10-A14
E10-A14A
E10-A14B
condensants A01-A
A01-E
Thiocyanate inorganic B05
C05
E32-B
removal from water D04-B07A
Thioethers B10-H01
C10-H01
E10-H01
Thioethers, cyclic condensant A01-E08
Thioketal B10-A23
C10-A23
E10-A23
E10-A23A
E10-A23B
Thioketone B10-F01
C10-F01
E10-F01
Thiokols (polymers) A05-J05
Thiol condensants A01-A
A01-E
Thiol rubbers A05-J05
Thiophene B07-B01
C07-B01
E07-B01
polymer A05-J12
Thiophenol B10-E01
C10-E01
E10-E01
production E10-E01P
use E10-E01U
Thiopyran B07-B02
C07-B02
E07-B02
Thiosulphonic acid or ester B10-A09B
C10-A09B
E10-A09B1
Thiosulphuric(ous) acid ester B10-A09A
C10-A09A
E10-A09A
Thiourea B10-A13A
C10-A13A
E10-A13A
E10-A13A1
E10-A13A2
condensant A01-E03
Thiuram disulphide accelerator for crosslinking agents
for addition polymers A08-C03
for other polymers A08-D
Thixotropic additive A08-M06
Thorium catalysts N03-A03
Thorium compounds B05-A04
C05-A04
inorganic E34-E03
organic E05-Q
Thread guides F01-H07

Thread rolling of metal M21-H
Thread traversing guides F01-H03D2
Threads - see also section F A12-S05+
Throat disease B14-N05B C14-N05B
Throat preparation B12-L04 C12-L04
Throat preparations B14-N05 C14-N05
Thrombase B04-H19 C04-H19
Thrombin B04-B02C3 B04-B04D3 B04-H19 C04-B02C3 C04-B04D3 C04-H19
Thrombinogen B04-H19 C04-H19
Thrombokinase B04-H19 C04-H19
Thrombolytic B14-F04 C14-F04
Thromboplastin B04-H19 C04-H19
Thrombopoietin B04-H07 C04-H07
Thrombosis treatment B12-H02 B14-F04 C12-H02 C14-F04
Thromboxane B04-H03G C04-H03G
  agonist/mimetic B14-L04 C14-L04
  antagonist/inhibitor B14-L08 C14-L08
Through hole connections formation in semiconductor processing L04-C13B
  formation in semiconductor processing L04-C13A
Throw rugs F02-B02
Thrush treatment B12-A02C B14-A04B C12-A02C C14-A04B
Thulium compounds B05-A03B C05-A03B
  catalysts N03-A02B
  inorganic E34-E02B
  organic E05-P
Thymidine B04-B03A C04-B03A
Thyristors L04-E04
Thyrocalcitonin B04-B02D3 B04-J04A C04-B02D3 C04-J04A
Thyroid active agents B12-G06 B14-N11 C12-G06 C14-N11
Thyroid hormone B04-B02D3 C04-B02D3
Thyroid hormone general B04-J04 C04-J04
Thyroid receptors B04-K01X2 C04-K01X2
Thyroid stimulating hormone (from pituitary gland) B04-B02D4 B04-J05F C04-B02D4 C04-J05F
Thyrotropic hormone (from pituitary gland) B04-B02D4 B04-J05F C04-B02D4 C04-J05F
Thyrotropin (from pituitary gland) B04-B02D4 B04-J05F C04-B02D4 C04-J05F
Thyrotropin-releasing hormone B04-J08 C04-J08
Thyroxine B10-B02E
Tickicide B12-B04 B14-B04A C12-B04 C14-B04A
Tights F04-C01 F04-C02
Tiles, polymer use A12-R+
Timing layer, photographic G06-A08
Tin
  alloys M26-B05
  compounds as antiseptic, fungicidal or animal repellant A08-M02
  electrodeposition M11-A06
  production M25-G23
  tetrachloride polymerisation catalyst A02-A04
Tin catalysts N03-G03
Tin compounds B05-A02 C05-A02
  inorganic E35-H
  inorganic compound pigment G01-A16
  organic E05-F
  organic, with Sn-C bond E05-F01
  organic, without Sn-C bond E05-F02
  Other Sn compound E05-F02B
Tires A12-T01+
Tissue (cells) B04-F01 C04-F01
  preservation, animal D09-A03A
  preservation, plant D09-A03B
Tissue culture D05-H08
  tissue culture tests B11-C08E1 C11-C08E1
Tissue engineering technologies B11-C04G C11-C04G D09-C01E
Tissue paper, multiply F05-A06A2
Titanate adhesion promoters or coupling agents A08-M01C
Titanic acid catalysts N03-B01A
Titanium
  alloys M26-B06
Titanium (production) M25-G24
Titanium catalysts N03-B
  element N03-B01A
  hydroxide N03-B01A
  oxide N03-B01A
  for polymerisation A02-A06+
Titanium compounds B05-A03B1 C05-A03B1
  inorganic E35-K
  organic E05-L01
  pigment/filler G01-A08
Titanium compounds adhesion improvers A08-M01C
Titanium halide polymerisation catalyst A02-A06B
Titanium oxide L02-G01E
  brightener (inorganic pigment) A08-E02
  production L02-G12A
Titanium tetrachloride as Friedel-Crafts/Lewis acid catalyst A02-A04
Titanium trichloride polymerisation catalyst A02-A06B
Titurization of glass surfaces L01-G05
TMC A12-S
Toadstools
  extracts B04-A10A C04-A10A B04-A07F1 C04-A07F1
  whole B04-A08D C04-A08D
Tobacco B04-A07D B04-A08C2 C04-A07D C04-A08C2
  addiction treatment B12-J05 B14-M01B C12-J05 C14-M01B
  artificial D07-D
  fleck treatment B12-L10 C12-L10
  preparation and processing D07-C
  substitutes A12-W
  synthetic or reconstituted D07-D
  treatment, chemical features D07-D
Tocopherol B03-H B15-E00 C03-H C15-E00
Toilet requisites A12-V04+ D08-B
Toluene condensants A01-E
Toluene diisocyanate E10-A14 E10-A14A E10-A14B
  condensant A01-E02
Toluene diisocyanate crosslinking agent
  for addition polymers A08-C09A
  for other polymers A08-D04A

Toluene solvent A08-S02
Toluene sulphonic acid-formaldehyde resin A05-J08
Toluene, vinyl
(co)polymers A04-C05
monomer A01-D03
Toluene-formaldehyde resin A05-J08
Tombs, burial A12-W
Toner transfer, electrophotographic G06-G08B
Toners, electrophotographic A12-L05C2
G06-G05
G06-G06
dry toning composition G06-G05A
Toners, image (non-electrophotographic) G06-H05
Toning, electrophotographic
dry G06-G05
liquid G06-G06
Tool handles A12-H
Tools, mechanical A12-H
Tooth fillings D08-A01
polymer use in A12-V02B
Toothbrush A12-V04B
Toothpaste A12-V04B
B12-M02A
C12-M02A
D08-B08A
Toothpowder B12-M02A
C12-M02A
D08-B08
Tops for containers A12-P03
Tote boxes A12-P06B
Toughening of glass L01-G03
Toughness of polymers A09-A05A
Toupee A12-V04
D08-B
Towels F04-D
Towels, sanitary A12-V03A
D09-C02
F04-E04
Town gas production H04-E10
Town waste fermentation D05-A04A
Tows A12-S05+
Toxic substance removal from soil B12-N08
C12-J05
C12-N08
C14-T01
Toys, models, educational devices A12-F
foam use in A12-S04D
TPX ® A04-G10
Trace elements, physiological amelioration of potable water with D04-A04
Tracers
bound to antigen or antibody, chemiluminescent B11-C07A5
C11-C07A5
bound to antigen or antibody, colour B11-C07A2
C11-C07A2
bound to antigen or antibody, enzyme B11-C07A4
C11-C07A4
bound to antigen or antibody, fluorescent B11-C07A5
C11-C07A5
bound to antigen or antibody, radioactive B11-C07A3
C11-C07A3
radioactive (excluding antigen-antibody) B11-C07B5
C11-C07B5
Tracing paper A12-D05
Tracks (e.g. for caterpillar, tank etc.) A12-T01
Tracks, (permanent way for) railways A12-T
Tractors A12-T+
Traffic sign paints A12-T+
G02-A05F
Trains A12-T+
Tranquilliser B12-C10
B14-J01B4
C12-C10
C14-J01B4
Trans-1,4- polybutadiene A04-B02+
Trans-1,4- polyisoperene A04-B06
Trans-2-butenoic acid
(co)polymers A04-F05
monomer A01-D08
Transcription factors B04-N12
C04-N12
Transdermal B12-M02F
C12-M02F
Transducers A12-E12
L03-G10
Transesterification in polymer modification A10-E07+
Transfer A12-W07F1
compositions A12-W07F1
G05-F01
dyeing/printing F03-F27
moulding A11-B11
of glass L01-G01A
of glass, hollow ware L01-E07
sheets A12-W07F1
Transfer RNA B04-E07
C04-E07
Transfer tails F01-H03D1
Transferases B04-B02C4
B04-L04
C04-B02C4
C04-L04
agonists B14-L01A2
C14-L01A2
enzyme process D05-A01B2
D05-A02B
inhibitors B12-G01B2
B14-D06
C12-G01B2
C14-D06
production by fermentation D05-C03D
Transformed cells D05-H14
Transformer oil L03-B02D
Transformers A12-E08B
L03-B02D
Transgenic
animal B04-P01+
C04-P01+
D05-H16A
plant B04-A08+
C04-A08+
D05-H16B
Translocase D05-A01B7
D05-A02G
Transomatic animal D05-H16C
Transomatic plant D05-H16D
Transglutaminase B04-H19
C04-H19
Transistors A12-E07C
L04-E01
CHEMFET L04-E01F
for LCDs L03-G05B6
field effect L04-E01A
junction field effect type L04-E01A1
metal oxide field effect MIST, MISFET L04-E01C
metal oxide semiconductors L04-E01B
metal oxide semiconductors, field effect L04-E01B1
photo L04-E01G
Transition metal (or compound) catalyst excluding radical and Friedel-Crafts
(oxy)halides A02-A06B
oxides A02-A06A
Transition metal (or compound) polymerisation catalyst activator (non-metallic) A02-A10
Transition metal catalysts N02
N03
for polymerisation A02-A06+
Transition metal compounds B05-A03
C05-A03
inorganic E35
organic - 1st series E05-L
organic - 2nd series E05-M
organic - 3rd series E05-N
Translocases B04-L10
Transmission (polymer use)
belts A12-H01
fluids A12-W02+
Transparency of polymer A09-A02
Transplant rejection inhibitor B14-G02C
C14-G02C
Transport applications A12-T+
Transport, reinforced polymer use in A12-S08D3
Transportation of polymer material A11-C06
Transporting
apparatus B11-C06
C11-C06
caps and bobbins F01-H03C
food D03-K08

Transuranic catalysts N03-A
Transuranic compounds B05-A04
C05-A04
inorganic E35-R
organic E05-Q
Trauma
physical B14-N17B
C14-N17B
Travel goods A12-T
Traversing guides for threads F01-H03D2
Tray, packaging A12-P06B
Tread, tyre design A12-T01B
Trematode treatment B12-B06
B14-B03
C12-B06
C14-B03
Triacetate, cellulose A03-A02+
B04-C02A3
C04-C02A3
D06-H
Trialkyl orthophosphate B05-B01P
C05-B01P
E05-G09C
Triallyl cyanurate
(co)polymers A04-A03
monomer A01-B03
Triarylmethane dye E25-D
Triazine B07-D13
C07-D13
E07-D13
asymmetrical E07-D13C
condensant A01-E01
symmetrical, production E07-D13A
symmetrical, use E07-D13B
Triazole B07-D13
C07-D13
E07-D13C
Tribromophenol flame
retardant for polymer A08-F04B
Tributyl phosphate
flame retardant for
polymer A08-F03
plasticiser for polymers A08-P05
Tributyl tin methacrylate
(co)polymers A04-F04+
monomer A01-A04
A01-D08
Tricarboxylic condensants
aliphatic, alicyclic A01-E12
aromatic A01-E11
Trichlorofluoro- methane
volatile blowing agent A08-B04A
Trichocephaliasis treatment B12-B02
B14-B03A
C12-B02
C14-B03A
Trichogenic B12-L05
B14-R02
C12-L05
C14-R02
Trichomatosis treatment B12-A02
B14-A03D
C12-A02
C14-A03D
Trichomonicide B14-A03D
C14-A03D
Trichuris treatment B12-B02
B14-B03A
C12-B02
C14-B03A
Trickle coolers, direct contact J08-B01
Tricresyl phosphate
flame retardant A08-F03
plasticiser A08-P05
Triethyl aluminium catalyst A02-A07+
Trifluoro chloroethylene -
ethylene copolymer A04-E10D
A04-G08
Trifluorochloro- ethylene (CTFE) E10-H02B
(co)polymers A04-E10D
monomer A01-D12
Trifluoronitro- somethane
(co)polymers A04-A04
monomer A01-A05
Trihydroxypropane condensant A01-E14
Triketoimidazolidine polymer A05-J02
Trilobal fibres A12-S05A
F01-E02
Trim strips for
automobiles A12-T04
furniture A12-D01
Trimellitates plasticisers/
extenders A08-P03
Trimellitic condensants A01-E11
Trimethyl dihydroquinoline
polymer A04-D08
Trimethylol propane
condensant A01-E14
Trimethylol propane
trimethylacrylate
(co)polymers A04-A03
monomer A01-B03
Trimming
polymer treatment A11-A05+
sewing workpiece F02-F01B2
Trimmings F02-E02
Triolefinic compounds
(co)polymers A04-A03
monomer A01-B03
Trioxane
(co)polymers A05-H02+
monomer A01-E09
Trithiocarbonate (organic) B10-A11A
C10-A11A
E10-A11A
E10-A11A1
E10-A11A2
Tritium compounds B05-A04
B05-A04B
C05-A04
C05-A04B
organic E05-R
Tropane B04-A01
C04-A01
Tropomyosin B04-H20C3
C04-H20C3
Trousers A12-C03
F04-C03
Trucks A12-T +
Trunks (cases) A12-T
Trypanocide B12-B07
B14-A03E
C12-B07
C14-A03E
Trypsin B04-B02C3
B04-L05C
C04-B02C3
C04-L05C
Tuberculostat B12-A04
B14-A01B1
C12-A04
C14-A01B1
Tubes
(pre)heating of polymer A11-A02B
bending and expanding
etc. (metal) M21-B04
collapsible for packaging A12-P06C
formation formation, glass L01-F02
formation, polymeric, by
winding strips A11-B08+
forming processes A11-B08C
mills (metal rolling) M21-A03
polymer A12-H02+
ribbed, seamed or finned
metal M21-C
used in fibre package
formation F01-H03A
with polymer coatings A12-B07C
A12-H02D
Tubing - see also Hoses A12-H02+
forming (e.g. bending) A11-B08C
Tubs (packaging) A12-P06B
Tubular films A12-S06+
production A11-B07A
A12-S06A
treatment A12-S06B
Tufted fabrics A12-S05J
Tufted product, general F02-D
Tufting F02-D
Tumour diagnosis B12-K04A1
C12-K04A1
Tumour inhibitor B12-G07
B14-H01
C12-G07
C14-H01
Tumour necrosis factor B04-H08
C04-H08
Tumour producing B12-G07
B14-H02
C12-G07
C14-H02
Tungsten
alloy M26-B13
production M25-G28
Tungsten catalysts N03-C
N03-C02
for polymerisation A02-A06+
Tungsten compounds B05-A03B
C05-A03B
inorganic E35-Q

inorganic compound pigment G01-A14
organic E05-N E05-N03A
Turbulence treatments of fibres F01-H02
Turf, synthetic A12-F01A A12-R
Turkey D02-A03B
Turkey blackhead treatment C12-B01 C12-G02
Turpentine, obtaining spirits of G02-B02
Tuyeres, iron and steel apparatus M24-A05D
cabinets A12-D01
Twisting, fibre, yarns A11-C05B F01-H01
Typewriter ribbon A12-D05A F02-E02
Tyre moulding or manufacture process A11-B17
Tyres A12-T01+
building equipment A11-B17 A12-T01A
cord and cord adhesives A12-T01C F04-E01
design A12-T01B
inner tubes A12-T01
moulding or manufacture, equipment A12-T01A
retreading, scrap recovery, disposal and use of old tyres A11-C03+ A12-T01D
studs A12-T01B
tread design A12-T01B
vulcanisation A11-C02A1

U

Ubiquinones B04-B02C1 B04-L02 C04-B02C1 C04-L02
UF resins A05-B03
Ulcer treatment dermal B14-N17H C14-N17H
duodenal B12-E08 B14-E08 C12-E08 C14-E08
peptic B12-E08 B14-E08 C12-E08 C14-E08
Ultrafilters A12-W11A J01-F02B
Ultramarine mineral, pigment E31-P02
Ultrasonics diagnosis B12-K04C B12-K04C1 C12-K04C C12-K04C1
administration device B12-M10F C12-M10F
heat sealing or welding of polymers A11-C01+
polymer treatment A10-E10
Ultrasound diagnosis B12-K04C1 C12-K04C1
Ultraviolet - see UV
Umbrella A12-W
Undecanolactam condensant A01-E04
Underground storage (hydrocarbons) H03-F
Underlay for carpets A12-D02
Underwear F04-C01
Uniaxial orientation process A11-B02+
Unleavened bread D01-B02C
Unmodified starch B04-C02B2 C04-C02B2
Unnotched Izod impact strength A09-A05A
Unreinforced hoses, tubes, pipes A12-H02A
Unsaturated acid esterified polymer A10-E07+
Unsaturated linear condensation polymers A05-D+
Unsaturated polyester in polymeric blends A07-A+
Unsubstituted hydrocarbons condensants A01-E
Upholstery A12-D01 F04-D03
foam use in A12-S04D
in vehicles A12-T04B F04-E03C
Uranium enrichment K05-B04A
production M25-G25
removal from waste water D04-B05 D04-B05A
Uranium catalysts N03-A
Uranium compounds B05-A04 C05-A04
inorganic E35-R
organic E05-Q
Urea B10-A13B C10-A13B E10-A13B E10-A13B1 E10-A13B2
condensant A01-E03
substituted B10-A13D C10-A13D
unsubstituted B10-A13C C10-A13C
Urea sorption (petroleum processing) H02-B04
Urea-formaldehyde resin A05-B03
Urethanated polymer A10-E24
Urethane resins A05-G+
Urethanisation of polymer by modification A10-E24
Uric acid B04-A06 C04-A06
Uridine B04-B03A C04-B03A
Urine B04-B04B B04-B04B1 C04-B04B C04-B04B1
Urogenital disease treatment B14-N07 C14-N07
Uron resin A10-E08C
Urotropin condensant A01-E05
Use of residues (in papermaking) F05-A02C
Used lubricants (recovery and treatment) H07-H
Usnic acid B02-U C02-U
Utensils, cooking A12-D03
Uterus active B12-E09 B14-N14 C12-E09 C14-N14
UV absorber B12-L08 B14-R05 C12-L08 C14-R05
coloured E24-E
UV detectors L04-E05H
UV irradiated/irradiation of polymer for crosslinking A11-C02B
other modification A10-E10
UV sensitive materials A12-L
UV stabiliser for polymers A08-A03

UV, polymerisation initiated by
addition polymerisation A10-B06
addition polymerisation, grafting A10-C03C
other (condensation polymerisation) A10-D+

V

V Antibiotics B02-V01 C02-V01

Vaccine
activity general B14-S11 C14-S11
antibacterial activity B14-S11B1 C14-S11B1
anticancer activity B14-S11C C14-S11C
antiparasitic activity B14-S11B3 C14-S11B3
antiprotozoal activity B14-S11B2 C14-S11B2
antiviral activity B14-S11A C14-S11A
other antimicrobial activity B14-S11B C14-S11B
other therapeutic B14-S11E C14-S11E

Vaccine adjuvants B14-S11F+ C14-S11F+

Vaccine type B14-S11D C14-S11D
Live-attenuated (weakened) B14-S11D2 C14-S11D2
Synthetic/genetically engineered B14-S11D3 C14-S11D3
Whole-killed (inactive) B14-S11D1 C14-S11D1

Vaccines (excluding interferon) B02-V02 C02-V02
polymer use in production A12-V01 D05-H07

Vacuum
assisted forming sheet/film A11-B08A
casting M22-G03E
evaporation of metals to form coatings M13-F
forming A11-B08A
metallising polymers A11-C04B1
packing foodstuff D03-H02F
refining M25-F01

Vagh ® A04-E03+ A04-F09

Valinomycin B02-V C02-V

Valves
artificial heart A12-V02 D09-C01C
discharge, structural parts L03-C03
for packaging A12-P03
mechanical A12-H07

Vanadium alloy M26-B13

Vanadium catalysts N03-C N03-C01
for polymerisation A02-A06+

Vanadium compounds B05-A03B C05-A03B
inorganic E35-N
inorganic compound pigment G01-A14
organic E05-L03 E05-L03A

Vanadium oxychloride polymerisation catalyst A02-A06B

Vanadium production M25-G26

Vaporisation of liquefied or solidified gas J06-B

Vapour
condensation J01-A03
deposited glass coatings L01-H
filling for discharge tubes or lamps L03-C02D
phase addition polymerisation A10-B
phase addition polymerisation, involving ordered copolymerisation A10-C+
phase etching semiconductors L04-C07B
separation of dispersed particles from J01-G
treatment J01-E

Vapour coating
coating on metallic substrates M13-F02
coating on other substrates including silicon substrates M13-F03
post treatment of coatings M13-F04
pretreatment of substrates M13-F01
substrates M13-F02

Vapour condenser J08-A
auxiliary system J08-A05
direct contact J08-A02
indirect contact J08-A01

Vapour deposition
apparatus for semiconductor processing L04-D01
for semiconductor layer growth L04-C01A
of glass (layers) L01-F06

Variable
capacitor L03-B03D
denier fibres F01-E02
resistors L03-B01A

Variable denier yarns F01-E08

Varicose vein treatment B12-J04 B14-E04 C12-J04 C14-E04

Varistors L03-B01A1

Varnishes
additives for inorganic film formers derived G02-A01+
organic film formers (polymers) derived A12-B+ G02-A02+ G02-B+

Vascular endothelial growth factor B04-H06M C04-H06M

Vascular tumour treatment B12-J04 B14-E04 C12-J04 C14-E04
Vaseline B04-B01C3 C04-B01C3
Vasoconstrictor B12-F06 B14-F02C C12-F06 C14-F02C
Vasodepressor B12-F07 B14-F02D C12-F07 C14-F02D
Vasodilator B12-F07 B14-F02D C12-F07 C14-F02D
Vasopressin B04-B02D4 B04-J05B C04-B02D4 C04-J05B
Vasopressor B12-F06 B14-F02C C12-F06 C14-F02C
Vat dyes for dyeing/printing fibres F03-F23
Vaults, burial A12-W
Vectors D05-H12 D05-H12E
  cloning D05-H12E
  DNA, cosmids, plasmids B04-E08 C04-E08
  expression D05-H12E
  transfer D05-H12E
  viral B04-F11 D05-H12E
Vee-belts A12-H01
Vegetable fibres
  dyeing/printing F03-F03
  treatment
  treatment, chemical F01-B02
  treatment, mechanical F01-A02
Vegetable oils/waxes B04-B01C1 C04-B01C1
Vegetables, machine for
  cutting D03-J09
  peeling D03-J07
  washing D03-J08
Vegetables, preservation D03-A04
Vegetable products D03-N
Vehicle A12-T04E
  safety belts F04-E03B
Vehicles A12-T+
  bumpers/fenders A12-T04D
  coatings A12-T05
  crash pads A12-T04B
  electro (in)organic material applications L03-H05
  fascia A12-T04B
  glass applications L01-L02
  insulation (acoustic + thermal) A12-T04B
  paints A12-T05
  parts, accessories A12-T04+
  seat fabrics F04-E03C
  shells A12-T02
  upholstery A12-T04B F04-E03C
Veneer A12-A04+
Venereal disease treatment B12-A05 B14-N07C C12-A05 C14-N07C
Venetian blinds A12-R02A
Vermicide B14-B03 C14-B03
  annelides B14-B03 C14-B03
  cestodes B14-B03 C14-B03
  distomicide B14-B03D C14-B03D
  flukes B14-B03 C14-B03
  leech B14-B03 C14-B03
  nematocide B14-B03A C14-B03A
  platyhelminthes B14-B03 C14-B03
  tapeworm B14-B03C C14-B03C
  threadworm B14-B03A C14-B03A
  trematodes B14-B03 C14-B03
Versamids® A05-F04
Vertical magnetic recording L03-B05G
Vesicular photographic system G06-C
Vessels for gas, not under pressure J06-B02
  discharge from J06-B05
Vessels for gas, under pressure J06-B01
  discharge from J06-B04
  filling J06-B03
Veterinary composition
Veterinary medicine, polymers used in A12-V+
  (meth)acrylate (co)polymer A04-F06E5
  cellulose ether A03-A04A1
  polyamide A05-F01E3
  polyethylene A04-G02E3
  polypropylene A04-G03E1
  PVA A10-E09B2
  silicone A06-A00E3
Veterinary only B12-L09 B14-S12 C12-L09 C14-S12
Vibration dampers A12-H09
Vibration, ultrasonic (polymer modification) A10-E10
Vibrio B04-F10A9 C04-F10A9
Video discs A12-W01A
  magnetic A12-E08A2 A12-W01A
  optical A12-L03C A12-W01A
Video magnetic tape A12-E08A1
Vinegar D05-G
Vinyl acetal polymers A10-E02
Vinyl acetamide monomer
  (co)polymers A04-D
  monomer A01-D07
Vinyl acetate E10-G02+
  (co)polymer (excluding ethylene) A04-F09
  (co)polymer with ethylene A04-G07
  homopolymer A04-F08
  monomer A01-D10A
  polymer adhesives A12-A05B3 G03-B02D2
  polymer coatings on metal A12-B04E
  polymer coatings/paints A12-B01F G02-A02D3
  production E10-G02D2
  use E10-G02H2B
Vinyl acetylene
  (co)polymers A04-A01
  monomer A01-B01
Vinyl alcohol polymer - see Polyvinyl alcohol
Vinyl aromatics
  (co)polymers A04-C+
  monomer A01-D02 A01-D03
Vinyl benzene
  homopolymer A04-C02+
  monomer A01-D03
  with acrylonitrile + butadiene A04-C03
  with butadiene A04-B03+
  with other monomers A04-C04+
Vinyl benzene sulphonic acid monomer A01-D02
Vinyl benzoate monomer A01-D02
Vinyl bromide (see also Vinyl halide) E10-H02D E10-H03D2 E10-H04D2
Vinyl bromide/iodide
  (co)polymers A04-E05
  homopolymer A04-E04
  monomer A01-D12
Vinyl bromobenzenes
  (co)polymers A04-C
  monomer A01-D02
Vinyl butyral, poly- A10-E02
Vinyl butyrate
  (co)polymers A04-F10
  monomer A01-D10A
Vinyl caprolactams
  (co)polymers A04-D05
  monomer A01-D01
Vinyl carbazoles
  (co)polymers A04-D06
  monomer A01-D01
Vinyl carbinol
  (co)polymers A04-F
  monomer A01-D09

Vinyl carboxylate - see Vinyl ester

Vinyl carboxylic esters (monoolefinic) - see Vinyl ester

Vinyl chloride E10-H02J
(co)polymers A04-E03+
(co)polymers, preparation A04-E03A
homopolymer A04-E02+
monomer A01-D12
polymer adhesives A12-A05B3
G03-B02D2
polymer coatings A04-E02E2
A12-B+
G02-A+
polymer in polymeric blends A07-A+
polymer paint, varnish/lacquer A04-E02E2
A12-B01F
G02-A02D2
production E10-H03C3
use E10-H04C3

Vinyl chlorobenzenes
(co)polymers A04-C
monomer A01-D02

Vinyl cyanide B10-A15
C10-A15
E10-A15
(co)polymers A04-D03+
homopolymer A04-D02+
monomer A01-D04

Vinyl cyclohexane (co)polymer A04-G

Vinyl cyclohexene diepoxide A05-A05

Vinyl ester resins A10-E07B

Vinyl ester, carboxylic (monoolefinic)
(co)polymers A04-F+
adhesives/binders A12-A05B3
G03-B02D2
coatings A12-B01F
G02-A02D3
monomer A01-D10A

Vinyl esters of (meth)acrylic acid
Production E10-G02D1
Use E10-G02H2A

Vinyl esters of phosphorus acids (monoolefinic)
(co)polymers A04-A
monomer A01
A01-A02

Vinyl esters of silicon acids
(co)polymers A04-A07
monomer A01-D
A01-A03

Vinyl esters of sulphur acids
(co)polymers A04-A06
monomer A01
A01-A

Vinyl ethers (monoolefinic)
(co)polymers A04-F11
monomer A01-D11

Vinyl ferrocene
(co)polymers A04-A
monomer A01
A01-A04

Vinyl fibres
dyeing/printing F03-F11
production, chemical features in F01-D08

Vinyl floor covering A12-R03
F04-B02

Vinyl fluoride (see also Vinyl halide) E10-H02B
E10-H03A3
E10-H04A3
(co)polymers A04-E10A
monomer A01-D12

Vinyl fluorobenzenes
(co)polymers A04-C
monomer A01-D02

Vinyl halide (excluding Cl,F)
(co)polymers A04-E05
homopolymer A04-E04
monomer A01-D12

Vinyl halide based
adhesives/binders A12-A05B3
G03-B02D2
coatings A12-B1F
G02-A02D2
paint varnish lacquer A12-B1F
G02-A02D2

Vinyl halobenzenes
(co)polymers A04-C
monomer A01-D02

Vinyl heterocyclics containing N, polymer A04-D+

Vinyl iodide (see also Vinyl halide) E10-H02D
E10-H03D2
E10-H04D2

Vinyl iodobenzenes
(co)polymers A04-C
monomer A01-D02

Vinyl isobutyl ether
(co)polymers A04-F11
monomer A01-D11

Vinyl isocyanate
(co)polymers A04-D
monomer A01-D07

Vinyl ketals, poly A10-E02

Vinyl ketones (monoolefinic)
(co)polymers A04-F03
monomer A01-D05

Vinyl lactam
(co)polymers A04-D05
monomer A01-D01

Vinyl methyl ether
(co)polymers A04-F11
monomer A01-D11

Vinyl methyl ketone
(co)polymers A04-F03
monomer A01-D05

Vinyl naphthalenes
(co)polymers A04-C
monomer A01-D03

Vinyl phenol (monoolefinic)
(co)polymers A04-C
monomer A01-D02

Vinyl phosphonate (monoolefinic)
(co)polymers A04-A
monomer A01
A01-A02

Vinyl phthalimides (monoolefinic)
(co)polymers A04-D08
monomer A01-D01

Vinyl polymer polyol polyurethane A05-G

Vinyl propionate
(co)polymers A04-F10
monomer A01-D10A

Vinyl pyridines (monoolefinic)
(co)polymers A04-D07
monomer A01-D01

Vinyl pyrrolidones (monoolefinic)
(co)polymers A04-D05A
monomer A01-D01

Vinyl silane (monoolefinic)
(co)polymers A04-A07
grafted polyethylene A04-A07
A04-G08
monomer A01
A01-A03

Vinyl siliconate (monoolefinic)
(co)polymers A04-A
monomer A01
A01-A03

Vinyl stearate
(co)polymers A04-F10
monomer A01-D10A

Vinyl sulphonate (monoolefinic)
(co)polymers A04-A06
monomer A01
A01-A

Vinyl sulphone (monoolefinic)
(co)polymers A04-A06
monomer A01
A01-A

Vinyl thioethers
(co)polymers A04-A06
monomer A01

Vinyl toluene
(co)polymers A04-C05
monomer A01-D03

Vinyl trichlorosilane adhesion improver A08-M01D

Vinyl triethoxysilane adhesion improver A08-M01D

Vinylene carbonate (monoolefinic) (co)polymer A04-F

Vinylidene bromide E10-H02D
E10-H03D2
E10-H04D2
(co)polymers A04-E07
homopolymer A04-E06
monomer A01-D12

Vinylidene chloride E10-H02G
E10-H03C3
E10-H04C3
(co)polymers A04-E07
homopolymer A04-E06
monomer A01-D12

Vinylidene cyanide E10-A15A
(co)polymers A04-D
monomer A01-D04
Vinylidene fluoride E10-H02B
E10-H03A3
E10-H04A3
(co)polymers A04-E10B
monomer A01-D12
Vinylidene fluoride - chlorotrifluoro- ethylene A04-E10B
(co)polymers A04-E10D
Vinylidene halides excluding fluorides (monoolefinic)
(co)polymers A04-E07
homopolymers A04-E06
monomer A01-D12
Vinylidene iodide E10-H02D
E10-H03D2
E10-H04D2
(co)polymers A04-E07
homopolymer A04-E06
monomer A01-D12
Vinylon ® A10-E09+
Virucide B12-A06
B14-A02
C12-A06
C14-A02
Viruses B04-B02B4
B04-F11
C04-B02B4
C04-F11
newly discovered, testing of, isolation of, identification of and detection of D05-H06A
recombinant D05-H12F
Viscose fibres dyeing/printing F03-F09
Viscosity depressants (modifiers) for polymers A08-M06
Viscosity index (VI) improver (lubricant additive) H07-G06
polymer use in A12-W02A
Vitamins B15
C15
E03
A B15-A00+
C15-A00+
B1 B15-B01+
C15-B01+
B12 B15-B12+
C15-B12+
B2 B15-B02+
C15-B02+
B6 B15-B06+
C15-B06+
C B15-C00+
C15-C00+
D B15-D00+
C15-D00+
E B15-E00+
C15-E00+
K B15-K00+
C15-K00+
P B15-P00+
C15-P00+
Vitamins general/other B15-Z
C15-Z
Vitamins, biosynthesis D05-C10
Vitamin preparation D03-H01T2C
Viton ® A04-E10B
A04-E10D
Vitreous coating of metal M13-J
post-treatment M13-J03
pre-treatment of surface M13-J01
Vitreous enamelling L01-H06
Volatile blowing agent A08-B04+
foaming A11-B06+
Volatile solvent vapour recovery from gases J01-E01
Vortex flow apparatus J01-L02
Vulcanisation additive A08-C+
A08-D+
Vulcanisation process, general A11-C02+
for rubber A11-C02A
of tyres A11-C02A1
Vulcanised polymer A11-C02+
Vulcanising agent - see crosslinking

W

W/O dispersions of polymers A07-B+
Waddings F02-C01
Waffles D01-B02F
Waist bands for garments F04-C04
Wall panels, cementitious L02-D04D
Wallpaper (polymer use) A12-R07
Walls
coating compositions for wall coverings (polymer use) G02-A05F
A12-R07
Warfare A12-T03D+
Warheads K03-A02
Warp
dyeing/printing F03-F29
knitting F02-B03A
Warping (textiles) F02-A01
Wart treatment B12-A07
B14-N17
C12-A07
C14-N17
Wash basins A12-R02
Wash-wear treated fabrics
non-resinous A12-S05R
F03-C04
resinous A12-G02
F03-C04
Washers A12-H08
Washing machine for textiles F03-J01
Washing rinsing, drying semiconductors L04-C09
Waste
disposal, other than by incineration J09-C01
disposal, by incineration J09-C02
encapsulation in glass L01-F
gas treatment in semconductor processing L04-X02
heat of furnace utilisation J09-B03
incinerator J09-C
organic, fermentation D05-A04A
J09-C01B
paper, working up F05-A02B
polymer recovery A11-C03+
product cement L02-C03
radioactive, treatment K07-B
recycling J09-C01A
removal from cores F01-H03E
storage in landfills J10-A
treatment in polymer processing A11-C07
water treatment in semiconductor processing L04-X03
water recycling D04-A06
Waste gas treatment J01-E02
by biological methods J01-E02H3
by centrifugal methods J01-E02H2
by combustion J01-E02H4
by molecular sieve J01-E02B1
by metal-organic framework J01-E02B2
by wet scrubbing J01-E02A
J01-G06

catalytic J01-E02D
removal of nitrogen oxides
removal of nitrogen oxides, catalytic E31-H01
removal of nitrogen oxides, other E31-H02
removal of sulphur compounds E31-F01
using ozone J01-E02H5
with membranes or ion exchangers J01-E02C
with solid absorbent J01-E02B

Waste water
containment of D04-A05

Waste water treatment in D04-A
D04-B
metallurgy for non-ferrous metal extraction M25-E01
paper making F05-A02C
semiconductor manufacture L04-X02
textile processes F03-E

Watches (polymer use) A12-W

Water B05-C08
C05-C08
E31-A
absorbent material for dressings D09-C06
adding scale preventative or remover D04-A03
adding sequestering agent D04-A03
based lacquer or paint A12-B01A
G02-A+
bed or mattress A12-D01
cooled reactor K05-A02B
flooding of oil wells A12-W10B
H01-D06
gas impregnated D04-C
in oil (W/O) polymer dispersion A07-B+
jet weaving F02-A04B
penetration into concrete inhibiting L02-D14Q
polymers used in potable A12-B
potable, physiological amelioration of D04-A04
production of ultrapure L04-X01
proofing agent for polymer A08-S08
proofing concrete, masonry G02-A05F
proofing, textile finishes, non-resinous A12-S05R
F03-C02A
proofing, textile finishes, resinous A12-G03
F03-C02A
purification D04-A01
purity measurement D04-A01H
reducing additives for concrete manufacture L02-D14D
repellent material for dressings D09-C05
repellent, fibre/fabric treatment, non-resinous A12-S05R
F03-C02A
repellent, fibre/fabric treatment, resinous A12-G03
F03-C02A
skiing A12-F01+
soluble polyelectrolytes A12-M+
sterilisation D04-A02
tracking stabiliser for polymer A08-A
transport A12-T
treatment general A12-W11J
D04-A
D04-B

Water crosslinking agent
for addition polymers A08-C10
for other polymers A08-D06

Water purification by
active carbon treatment D04-A01F
D04-A01F2
adsorption D04-A01F
D04-A01F3
aeration/oxidation D04-A01K
Biological process D04-A01J
chemical method (e.g. ion-exchange) D04-A01G
distillation D04-A01A
electrochemical process D04-A01M
environmentally-friendly water processing D04-A01M
extraction D04-A01N
E11-Q01B
filtration D04-A01F
D04-A01F1
J01-F04X1
flotation D04-A01L
freezing D04-A01C
freezing D04-A01C
irradiation D04-A01P2A
other chemical methods D04-A01P1
other methods D04-A01P
oxidation with ozone D04-A01K1
oxidation/aeration with other D04-A1K2
other physical methods D04-A01P2
precipitation D04-A01B
reverse osmosis D04-A01D
using active carbon D04-A01G

Water soluble tablet B12-M11L
C12-M11L

Wave guide
electric A12-E

Wave guides L03-G02
(electro)photographic production of G06-D06B

Waxes A12-S
B04-B01C
C04-B01C
as extenders or plasticiser A08-P08
fatty acid preparation from D10-B01
halogenated B04-B01A
C04-B01A
petroleum products H08-A
ski G02-C
unhalogenated B04-B01C
C04-B01C

Weapons A12-T03D+

Wear-resistant ceramic oxide L02-G08

Wearing apparel A12-C+
F04-C+

Weavers' tools F02-A05

Weaving A11-C05A
F02-A+
auxiliary apparatus F02-A05
looms F02-A04+
looms, conventional F02-A04A
looms, shuttleless F02-A04B

Webbing A12-P07
F02-E02

Webs (fabric), handling F03-K01

Weed control agents
selective B12-P06
C12-P06
C14-V02
total and general B12-P05
C12-P05
C14-V01

Weed control compositions
use of polymers A12-W04C

Weft
gripper looms F02-A04B
knitting F02-B03B

Weight increasing B12-J01
B14-E11
C12-J01
C14-E11

Weight reducing B12-J02
B14-E12
C12-J02
C14-E12

Welding A11-C01+
aluminothermic M23-E02
ancillary equipment M23-H
backing strips M23-J
electric M23-D
electric, arc M23-D01
electric, electron beam M23-D04
electric, electroslag welding M23-D07
electric, induction heating M23-D03
electric, laser beam M23-D05
electric, plasma arc M23-D01
electric, resistance M23-D02
electric, spark erosion M23-D06
electrodes M23-F
explosive M23-E02
flame M23-B
flame, burners, gas supply, torches M23-B01
flux holders M23-J
fluxes M23-F
flux removers D11-D01B2
hard surface M23-E03
in semiconductor manufacture L04-C17C
inspection and control methods M23-G
jigs and holders M23-H
joint design M23-J
of contacts on electrical components L03-A01B6
of polymers A11-C01+
pre- and post-treatment M23-G
rods M23-F
ultrasonic M23-E04

Wellhead equipment H01-C06

Wells (oil) A12-W10+
blowout preventers H01-C06A
brine flooding H01-D06A
carbon dioxide flooding H01-D06C
casing H01-C01
cementing A12-W10C
H01-C02
chemical production H01-D09
completion H01-C

consolidation A12-W10C H01-C09
control equipment H01-B03B H01-B03B3
coring H01-B05B
corrosion inhibition H01-E02
depleted fields H01-R
directional/turbo drilling H01-B05A
downhole equipment H01-B03C
effluent treatment H01-E
fishing tools H01-B07
flooding A12-W10B
fracturing A12-W10B H01-C03
lining A12-W10C H01-C07
killing H01-H
logging H01-A02
logging while drilling H01-B03B1
measuring H01-B03B2
other H01-X
packers H01-C01A
perforating H01-C05
pipes H01-P
plugging A12-W10C H01-C02
production using bacteria H01-D13
scale inhibition H01-E05
servicing H01-C10
steam flooding H01-D06B
stimulation A12-W10B H01-C
subsurface equipment H01-B03C
testing H01-B08 H01-C11 H01-D12
thermal production H01-D08
transmission of data, power H01-B03D
tubing H01-C01
valves H01-B03B3
waterflooding H01-D06
water control compositions H01-C12
water control methods H01-D14
water treatment H01-E04

Wet end of papermaking machine F05-A04A

Wet extraction of metal compounds M25-B
ion exchange M25-B03
precipitation as an insoluble compound M25-B01
reduction with hydrogen or metal M25-B02
solvent extraction M25-B04

Wet laying of non-woven fabrics F02-C02E

Wet method for extracting non-ferrous metal compounds from ore M25-B

Wet scrubbing of waste gases J01-E02A

Wet spinning A11-B15C F01-C08C

Wet treatment of fabrics, apparatus (general) F03-B F03-C01 F03-F01

Wetting agent A08-S05 B12-M09 C12-M09

Wheel (polymer use)
fly A12-H
grinding A12-A03
vehicle A12-T04+

Whey and curds separation D03-B02

Whisker E12-A12

Whiskers fillers/reinforcing agents A08-R09

White carbon filler A08-R06A

Whitening agents A08-E+ E24-A
for skin D08-B01D1

Whiteware L02-G03

Whole animal, general and other B04-P01 C04-P01

Wide films A12-S06+

Wigs D08-B F04-G
non-transplanted A12-V04
transplanted A12-V02 A12-V04

Winding
fabric web F03-K01
paper web F05-A05
plastics products excluding fibres/fabrics A11-C06
polymeric fibres, yarns A11-C05B
strips to form tube A11-B08+
yarns F01-H03+

Window cleaning agent D11-D01C

Windows
frames A12-R02A
glazing A12-R04
seals A12-R02A

Windscreens A12-T04A

Wine D05-E

Wipes, multiply F05-A06A2

Wire - see also Electrical E12-A12

Wire insulation (electrical) A12-E02+
compositions A12-E02A
fabrication, treatment A12-E02B

Wire insulation removal A11-C

Wire mills (metal rolling) M21-A03A

Wire reinforced glass sheet manufacture L01-D04

Wire working M21-F

Wire, coating composition for A12-E02+ G02-A05A

Wolfram - see Tungsten

Wollastonite filter/reinforcing agent A08-R06B

Wood B04-A07D3 B04-A09G C04-A07D3 C04-A09G
polymer coating on A12-B09
preservation/ treatment F05-B
synthetic A12-D01 A12-R01

Wood flour/powder filler/ reinforcing agent A08-R07

Wood shavings B04-A07D3 B04-A09G C04-A07D3 C04-A09G

Wood, coatings on A12-B09 F05-B

Wool A03-C01 B04-B04E C04-B04E
chemical treatment of F01-B01
dying/printing F03-F02
mechanical treatment of F01-A01

Working fluid for heat engine G04-B01

Working of ferrous metal M24-D01

Working sheet metal M21-E
bending, corrugating, flanging, straightening M21-E01
deep drawing, spinning, stretch forming M21-E03
punching, stamping and pressing M21-E02

Working up
flue dust, sludge, slurry or waste water - non ferrous metals M25-E01
waste paper F05-A02B

Wound dressings A12-V03A D09-C04B F04-E04

Wound treatment B12-A07 B14-N17B C12-A07 C14-N17B

Woven fabrics A12-S05F F02-A03

Wrapper, wrapping films A12-P+ A12-P01A

Writing devices A12-D05B G02-A04+

Wrought iron production M24-B01C

X

X-ray
  anodes L03-C01
  contrast media B12-K07
    C12-K07
  crystallography B11-C08G1
    C11-C08G1
  emission electrodes L03-C02A
  films G06-D01
  measurement K08-A
  medical equipment A12-V03+
  papers G06-D01
  photographic equipment A12-L+
  photographic materials G06-D01
  radiotherapy K09-B02
  screens (intensifying) G06-A09
    G06-D01
  techniques K08-E
  techniques, using
  electro(in)organic material L03-H04C
  therapy or treatment K08-E02
  tubes(structural parts) L03-C03
Xanflood ® A03-A+
Xanthan gum A03-A+
    B04-C02F
    C04-C02F
Xanthate, cellulose A03-A05+
    B04-C02A3
    C04-C02A3
Xanthation of polymer A10-E24
Xanthene B06-A03
    C06-A03
    E06-A03
Xanthine B04-A06
    C04-A06
Xanthogenate (organic) B10-A11A
    C10-A11A
    E10-A11A
    E10-A11A1
    E10-A11A2
Xanthomycin B02-X
    C02-X
Xenon (element) B05-B02C
    C05-B02C
    E31-J
Xenon compounds B05-B02C
    C05-B02C
  inorganic E31-J
  organic E05-K
Xerography A12-L05+
Xylene E10-J02B
  condensant A01-E
  solvent for polymers A08-S02
Xylene diamine E10-B01A
  condensant A01-E05
Xylene- formaldehyde resin A05-J08
Xylenol
  condensant A01-E13
Xylenol- formaldehyde resin A05-C03+
Xylenols E10-E02B
    E10-E02B1
    E10-E02E
    E10-E02E1
Xylok resins A05-J13
Xylylene glycol E10-E04J1
  condensant A01-E14

Y

Yarn cleaners F01-H09
Yarn processes A11-C05+
  blending F01-F
  cabling F01-H01
  carding, combing F01-F01
  crimping, curling of fibres A11-B02D
    F01-H04
  drafting F01-F02
  entangling F01-H02
  finishing F01-H06+
  heat setting A11-B02C
    F01-H05
  increasing adhesion to
  bulk materials F01-H06B
  mechanical finishing F01-H+
  open-end spinning F01-G05
  opening F01-F03
  ring spinning F01-G01
  ringless spinning F01-G02
  sizing F01-H06A
  spinning A11-B15+
    F01-G+
  spinning, automated
  systems F01-G04
  testing F01-H
  winding A11-C05B
    F01-H03+
Yarns of polymers A12-S05+
Yeast B04-F09
    C04-F09
Yeast production D05-B04
Yield strength M24-F07
    M29-F07
Yoghurt D03-B14
Yohimbane B04-A05
    C04-A05
Young's Modulus A09-A05
Ytterbium compounds B05-A03B
    C05-A03B
  catalysts N03-A02B
  inorganic E34-E02B
  organic E05-P
Yttrium catalysts N03-A01
  for polymerisation A02-A06+
Yttrium compounds B05-A03B
    C05-A03B
  inorganic E34-E01
  organic E05-M
    E05-M03D
Yttrium iron garnets,
yttrium aluminium garnets,
YIG, YAG L03-B02B3
Yttrium oxide L02-G01C1
  production L02-G12D1

Z

Zein A03-C01
B04-B04A4
B04-N01
C04-B04A4
C04-N01

Zeolites E31-P02
L02-G01A
  Detergent use D11-B11
D11-B11A
  Molecular sieve use J01-E02B1
J01-E03C1

Zeolite catalysts
  aluminium free N06-B02
  high silica N06-B02
  support A02-D
  with alkali(ne earth) metals only N06-A
  with metals, not alkali(ne earth) N06-B
  with metals, not alkaline(ne earth) N06-B01

Zeolite filler/reinforcing agents A08-R06B

Zero-twist process F01-H02

Ziegler(-Natta) catalysts A02-A06+

Zinc
  alloys M26-B07
  catalysts N03-F01
  electrodeposition M11-A04
  production M25-G27

Zinc borate flame retardant A08-F

Zinc carboxylates E05-L03C

Zinc compounds B05-A03A4
C05-A03A4
  carboxylates E05-L03D
  halide E35-C03
  inorganic (other than halide, hydroxide, oxide, sulfate) E35-C04
  organic E05-L03
  organic, excluding pigments/fillers G01-A02

Zinc dialkyldithio-carbamate accelerators for cross-linking agents A08-C03
A08-D05

Zinc finger proteins B04-N11
C04-N11
D05-H17A7
D05-H17B7

Zinc hydroxide
  production E35-C01
  use E35-C02

Zinc oxide E35-C
L02-G01F
L04-A03D
  activators for crosslinking agents A08-C02
A08-D05
  electrodes for batteries L03-E01B6
  glass composition L01-A03C2
  photoconductor G06-F07A
  pigment A08-E02
G01-A02
  production E35-C01
L02-G12C
  use E35-C02

Zinc selenide L03-A03B

Zinc stearate lubricant for polymer A08-M03+

Zinc sulfate E35-C03

Zinc sulphide E35-C
L03-A03A
  pigment A08-E02
G01-A02

Zip ® fasteners A12-C03
F04-C04
  sewing of F02-F01A1

Zirconium
  alloys M26-B06
  production M25-G28

Zirconium catalysts N03-B
N03-B02
  for polymerisation A02-A06+

Zirconium compounds B05-A03B
C05-A03B
  inorganic E35-L
  organic E05-M
E05-M01

Zirconium oxide L02-G01D
  production L02-G12B

Zone refining in semiconductor crystals L04-B02

Zymogen B04-B02C
B04-L09
C04-B02C
C04-L09

ISBN 978-1-912144-43-3

clarivate.com/derwent

© 2025 Clarivate. Clarivate and its logo, as well as all other trademarks used herein are trademarks of their respective owners and used under license.