

## SECTION A — HUMAN NECESSITIES

### A61 MEDICAL OR VETERINARY SCIENCE; HYGIENE

**A61K PREPARATIONS FOR MEDICAL, DENTAL, OR TOILET PURPOSES** (devices or methods specially adapted for bringing pharmaceutical products into particular physical or administering forms A61J 3/00; chemical aspects of, or use of materials for deodorisation of air, for disinfection or sterilisation, or for bandages, dressings, absorbent pads or surgical articles A61L; soap compositions C11D)

#### Note(s)

- This subclass covers the following subject matter, whether set forth as a composition (mixture), process of preparing the composition or process of treating using the composition:
  - Drug or other biological compositions which are capable of:
    - preventing, alleviating, treating or curing abnormal or pathological conditions of the living body by such means as destroying a parasitic organism, or limiting the effect of the disease or abnormality by chemically altering the physiology of the host or parasite (biocides A01N 25/00-A01N 65/00);
    - maintaining, increasing, decreasing, limiting, or destroying a physiological body function, e.g. vitamin compositions, sex sterilants, fertility inhibitors, growth promoters, or the like (sex sterilants for invertebrates, e.g. insects, A01N; plant growth regulators A01N 25/00-A01N 65/00);
    - diagnosing a physiological condition or state by an in vivo test, e.g. X-ray contrast or skin patch test compositions (measuring or testing processes involving enzymes or micro-organisms C12Q; in vitro testing of biological material, e.g. blood, urine, G01N, e.g. G01N 33/48);
  - Body treating compositions generally intended for deodorising, protecting, adorning or grooming a body, e.g. cosmetics, dentifrices, tooth filling materials.
- Attention is drawn to the definitions of groups of chemical elements following the title of section C.
- Attention is drawn to the notes in class C07, for example the notes following the title of the subclass C07D, setting forth the rules for classifying organic compounds in that class, which rules are also applicable, if not otherwise indicated, to the classification of organic compounds in A61K.
- In this subclass, with the exception of group A61K 8/00, in the absence of an indication to the contrary, classification is made in the last appropriate place.
- Therapeutic activity of medicinal preparations is further classified in subclass A61P.

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DENTAL PREPARATIONS.....	6/00
COSMETICS, PERFUMES.....	8/00
PHARMACEUTICAL PREPARATIONS	
characterised by form.....	9/00
characterised by active ingredients	
organic active ingredients.....	31/00, 35/00, 36/00, 38/00
materials from animals, protozoa, bacteria or viruses.....	35/00
materials from algae, fungi lichens or plants.....	36/00
inorganic active ingredients.....	33/00, 35/00
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- 6/00 Preparations for dentistry** (teeth cleaning preparations A61K 8/00, A61Q 11/00; fastening dental prostheses in the mouth using adhesive foils or adhesive compositions A61C 13/23) [3]
- 6/02 • Use of preparations for artificial teeth, for filling or for capping teeth [3]

- 6/027 • • Use of non-metallic elements or compounds thereof, e.g. carbon [5]
- 6/033 • • • Phosphorus compounds, e.g. apatite [5]
- 6/04 • • Use of metals or alloys [3]
- 6/05 • • • Amalgams [5]
- 6/06 • • Use of inorganic cements [3]
- 6/08 • • Use of natural or synthetic resins [3]

- 6/083 • • • Compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds [2006.01]
- 6/087 • • • Compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds [2006.01]
- 6/09 • • • • Polyurethanes [2006.01]
- 6/093 • • • • Polyorganosilicon compounds [2006.01]
- 6/097 • • • Polysaccharides [2006.01]
- 6/10 • Compositions for taking dental impressions [2006.01]

#### 8/00 Cosmetics or similar toilet preparations [2006.01]

##### Note(s) [2006.01]

Use of cosmetics or similar toilet preparations is further classified in subclass A61Q.

- 8/02 • characterised by special physical form [2006.01]

##### Note(s) [2006.01]

In this group, in the absence of an indication of the contrary, classification is made in the last appropriate place.

- 8/03 • • Liquid compositions with two or more distinct layers [2006.01]
- 8/04 • • Dispersions; Emulsions [2006.01]
- 8/06 • • • Emulsions [2006.01]
- 8/11 • • Encapsulated compositions [2006.01]
- 8/14 • • Liposomes [2006.01]
- 8/18 • characterised by the composition [2006.01]

##### Note(s) [2006.01]

In this group, in the absence of an indication of the contrary, classification is made in the last appropriate place.

- 8/19 • • containing inorganic ingredients [2006.01]
- 8/20 • • • Halogens; Compounds thereof [2006.01]
- 8/21 • • • • Fluorides; Derivatives thereof [2006.01]
- 8/22 • • • Peroxides; Oxygen; Ozone [2006.01]
- 8/23 • • • Sulfur; Selenium; Tellurium; Compounds thereof [2006.01]
- 8/24 • • • Phosphorus; Compounds thereof [2006.01]
- 8/25 • • • Silicon; Compounds thereof [2006.01]
- 8/26 • • • Aluminium; Compounds thereof [2006.01]
- 8/27 • • • Zinc; Compounds thereof [2006.01]
- 8/28 • • • Zirconium; Compounds thereof [2006.01]
- 8/29 • • • Titanium; Compounds thereof [2006.01]
- 8/30 • • containing organic compounds [2006.01]
- 8/31 • • • Hydrocarbons [2006.01]
- 8/33 • • • containing oxygen [2006.01]
- 8/34 • • • • Alcohols [2006.01]
- 8/35 • • • • Ketones, e.g. quinones, benzophenone [2006.01]
- 8/36 • • • • Carboxylic acids; Salts or anhydrides thereof [2006.01]
- 8/362 • • • • Polycarboxylic acids [2006.01]
- 8/365 • • • • Hydroxycarboxylic acids; Ketocarboxylic acids [2006.01]
- 8/368 • • • • with carboxyl groups directly bound to carbon atoms of aromatic rings [2006.01]
- 8/37 • • • • Esters of carboxylic acids [2006.01]
- 8/38 • • • • Percompounds, e.g. peracids [2006.01]
- 8/39 • • • • Derivatives containing from 2 to 10 oxyalkylene groups [2006.01]
- 8/40 • • • containing nitrogen (quinones containing nitrogen A61K 8/35) [2006.01]
- 8/41 • • • • Amines [2006.01]

- 8/42 • • • • Amides [2006.01]
- 8/43 • • • • Guanidines [2006.01]
- 8/44 • • • • Aminocarboxylic acids or derivatives thereof, e.g. aminocarboxylic acids containing sulfur; Salts, esters or N-acylated derivatives thereof [2006.01]
- 8/45 • • • • Derivatives containing from 2 to 10 oxyalkylene groups [2006.01]
- 8/46 • • • containing sulfur (A61K 8/44 takes precedence) [2006.01]
- 8/49 • • • containing heterocyclic compounds [2006.01]
- 8/55 • • • containing phosphorus [2006.01]
- 8/58 • • • containing atoms other than carbon, hydrogen, halogen, oxygen, nitrogen, sulfur or phosphorus [2006.01]
- 8/60 • • • Sugars; Derivatives thereof [2006.01]
- 8/63 • • • Steroids; Derivatives thereof [2006.01]

##### Note(s) [2006.01]

This group covers steroids, as defined in Note (1) after the title of subclass C07J.

- 8/64 • • • Proteins; Peptides; Derivatives or degradation products thereof [2006.01]
- 8/65 • • • Collagen; Gelatin; Keratin; Derivatives or degradation products thereof [2006.01]
- 8/66 • • • • Enzymes [2006.01]
- 8/67 • • • Vitamins [2006.01]
- 8/68 • • • Sphingolipids, e.g. ceramides, cerebrosides, gangliosides [2006.01]
- 8/69 • • • containing fluorine [2006.01]
- 8/70 • • • • containing perfluoro groups, e.g. perfluoroethers [2006.01]
- 8/72 • • containing organic macromolecular compounds [2006.01]
- 8/73 • • • Polysaccharides [2006.01]
- 8/81 • • • obtained by reactions involving only carbon-to-carbon unsaturated bonds [2006.01]
- 8/84 • • • obtained by reactions other than those involving only carbon-to-carbon unsaturated bonds [2006.01]
- 8/85 • • • • Polyesters [2006.01]
- 8/86 • • • • Polyethers [2006.01]
- 8/87 • • • • Polyurethanes [2006.01]
- 8/88 • • • • Polyamides [2006.01]
- 8/89 • • • • Polysiloxanes [2006.01]
- 8/891 • • • • • saturated, e.g. dimethicone, phenyl trimethicone, C24-C28 methicone or stearyl dimethicone [2006.01]
- 8/892 • • • • • modified by a hydroxy group, e.g. dimethiconol [2006.01]
- 8/893 • • • • • modified by an alkoxy or aryloxy group, e.g. behenoxy dimethicone or stearoxy dimethicone [2006.01]
- 8/894 • • • • • modified by a polyoxyalkylene group, e.g. cetyl dimethicone copolyol [2006.01]
- 8/895 • • • • • containing silicon bound to unsaturated aliphatic groups, e.g. vinyl dimethicone [2006.01]
- 8/896 • • • • • containing atoms other than silicon, carbon, oxygen and hydrogen, e.g. dimethicone copolyol phosphate [2006.01]
- 8/897 • • • • • containing halogen, e.g. fluorosilicones [2006.01]

- 8/898 • • • • • containing nitrogen, e.g. amodimethicone, trimethyl silyl amodimethicone or dimethicone propyl PG-betaine **[2006.01]**
- 8/899 • • • • • containing sulfur, e.g. sodium PG-propyldimethicone thiosulfate copolyol **[2006.01]**
- 8/90 • • • Block copolymers (A61K 8/89 takes precedence) **[2006.01]**
- 8/91 • • • Graft copolymers (A61K 8/89 takes precedence) **[2006.01]**
- 8/92 • • Oils, fats or waxes; Derivatives thereof, e.g. hydrogenation products **[2006.01]**
- 8/96 • • containing materials, or derivatives thereof, of undetermined constitution **[2006.01]**
- 8/97 • • • of vegetable origin, e.g. plant extracts **[2006.01]**
- 8/98 • • • of animal origin **[2006.01]**
- 8/99 • • • from micro-organisms **[2006.01]**
- 9/00 Medicinal preparations characterised by special physical form**
- 9/02 • Suppositories; Bougies; Bases for suppositories or bougies (apparatus for making A61J 3/08; devices for introducing into the body A61M 31/00)
- 9/06 • Ointments; Bases therefor (apparatus for making A61J 3/04)
- 9/08 • Solutions **[2, 3]**
- 9/10 • Dispersions; Emulsions **[2, 3]**
- 9/107 • • Emulsions **[5]**
- 9/113 • • • Multiple emulsions, e.g. oil-in-water-in-oil **[5]**
- 9/12 • • Aerosols; Foams **[2, 3]**
- 9/127 • • Liposomes **[5]**
- 9/133 • • • Unilamellar vesicles **[5]**
- 9/14 • Particulate form, e.g. powders (microcapsules A61K 9/50) **[2]**
- 9/16 • • Agglomerates; Granulates; Microbeadlets **[2]**
- 9/18 • • Adsorbates **[2]**
- 9/19 • • lyophilised **[6]**
- 9/20 • Pills, lozenges or tablets **[2]**
- 9/22 • • Sustained or differential release type **[2]**
- 9/24 • • • Layered or laminated unitary dosage forms **[2]**
- 9/26 • • • Discrete particles in supporting matrix **[2]**
- 9/28 • • Dragees; Coated pills or tablets **[2]**
- 9/30 • • • Organic coatings **[2]**
- 9/32 • • • • containing solid synthetic polymers **[2]**
- 9/34 • • • • containing natural gums or resins **[2]**
- 9/36 • • • • containing carbohydrates or derivatives thereof (A61K 9/34 takes precedence) **[2]**
- 9/38 • • • • containing proteins or derivatives thereof **[2]**
- 9/40 • • • • Gelatin containing **[2]**
- 9/42 • • • • containing waxes, higher fatty acids, higher fatty alcohols, or derivatives thereof, e.g. chocolate **[2]**
- 9/44 • • printed, embossed, grooved, or perforated **[2]**
- 9/46 • • effervescent **[2]**
- 9/48 • Preparations in capsules, e.g. of gelatin, of chocolate **[2]**
- 9/50 • • Microcapsules (A61K 9/52 takes precedence) **[2]**
- 9/51 • • • Nanocapsules **[5]**
- 9/52 • • Sustained or differential release type **[2]**
- 9/54 • • • containing discrete particles with coatings of different thicknesses or different materials **[2]**
- 9/56 • • • • Organic coatings **[2]**
- 9/58 • • • • • containing solid synthetic polymers **[2]**

- 9/60 • • • • • containing natural gums or resins **[2]**
- 9/62 • • • • • containing carbohydrates or derivatives thereof (A61K 9/60 takes precedence) **[2]**
- 9/64 • • • • • containing proteins or derivatives thereof **[2]**
- 9/66 • • • containing emulsions, dispersions or solutions **[2]**
- 9/68 • chewing gum type **[2]**
- 9/70 • Web, sheet or filament bases **[2]**
- 9/72 • for smoking or inhaling **[2]**

**Note(s) [2006.01]**

1. A composition, i.e. a mixture of two or more components, is classified in the last of groups A61K 31/00-A61K 47/00 that provides for at least one of these components. The components may be single compounds or other single ingredients.
2. Any part of a composition which is not identified by the classification according to Note (1), and which itself is determined to be novel and non-obvious, must also be classified in the last appropriate place in groups A61K 31/00-A61K 47/00. The part can be either a single component or a composition in itself.
3. Any part of a composition which is not identified by the classification according to Note (1) or (2), and which is considered to represent information of interest for search, may also be classified in the last appropriate place in groups A61K 31/00-A61K 47/00. This can for example be the case when it is considered of interest to enable searching of compositions using a combination of classification symbols. Such non-obligatory classification should be given as "additional information".

**31/00 Medicinal preparations containing organic active ingredients [2]****Note(s)**

1. Organic active compounds forming salts or complexes with heavy metals are not classified in groups A61K 31/28, A61K 31/555 or A61K 31/7135, unless explicit indication to the contrary is made, e.g. hemin A61K 31/555.
2. In this group, the expressions "containing further heterocyclic rings" and "condensed with heterocyclic rings" also cover compounds having two or more identical heterocyclic rings.

- 31/01 • Hydrocarbons **[2]**
- 31/015 • • carbocyclic **[2]**
- 31/02 • Halogenated hydrocarbons **[2]**
- 31/025 • • carbocyclic **[2]**
- 31/03 • • • aromatic **[2]**
- 31/035 • • • having aliphatic unsaturation **[2]**
- 31/04 • Nitro compounds **[2]**
- 31/045 • Hydroxy compounds, e.g. alcohols; Salts thereof, e.g. alcoholates (hydroperoxides A61K 31/327) **[2, 7]**
- 31/047 • • having two or more hydroxy groups, e.g. sorbitol **[7]**
- 31/05 • • Phenols **[2]**
- 31/055 • • • the aromatic ring being substituted by halogen **[2]**
- 31/06 • • • the aromatic ring being substituted by nitro groups **[2]**
- 31/065 • • Diphenyl-substituted acyclic alcohols **[2]**
- 31/07 • • Retinol compounds, e.g. vitamin A (retinoic acids A61K 31/203) **[2, 7]**

## A61K

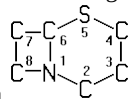
- 31/075 • Ethers or acetals [2]  
 31/08 • • acyclic, e.g. paraformaldehyde [2]  
 31/085 • • having an ether linkage to aromatic ring nuclear carbon [2]  
 31/09 • • • having two or more such linkages [2]  
 31/095 • Sulfur, selenium or tellurium compounds, e.g. thiols [2]  
 31/10 • • Sulfides; Sulfoxides; Sulfones [2]  
 31/105 • • Persulfides (thiuram disulfides A61K 31/145; thiosulfonic acids A61K 31/185) [2]  
 31/11 • Aldehydes [2]  
 31/115 • • Formaldehyde [2]  
 31/12 • Ketones [2]  
 31/121 • • acyclic [7]  
 31/122 • • having the oxygen atom directly attached to a ring, e.g. quinones, vitamin K<sub>1</sub>, anthralin [7]  
 31/125 • • • Camphor; Nuclear substituted derivatives thereof [2]  
 31/13 • Amines, e.g. amantadine (A61K 31/04 takes precedence) [2]  
 31/131 • • acyclic [7]  
 31/132 • • having two or more amino groups, e.g. spermidine, putrescine [7]  
 31/133 • • having hydroxy groups, e.g. sphingosine [7]  
 31/135 • • having aromatic rings, e.g. methadone [2, 7]  
 31/136 • • • having the amino group directly attached to the aromatic ring, e.g. benzeneamine [7]  
 31/137 • • • Arylalkylamines, e.g. amphetamine, epinephrine, salbutamol, ephedrine [7]  
 31/138 • • • Aryloxyalkylamines, e.g. propranolol, tamoxifen, phenoxybenzamine (atenolol A61K 31/165; pindolol A61K 31/404; timolol A61K 31/5377) [7]  
 31/14 • • Quaternary ammonium compounds, e.g. edrophonium, choline (betaines A61K 31/205) [2]  
 31/145 • • having sulfur atoms, e.g. thiurams ( $\text{N}=\text{C}(\text{S})-\text{S}-\text{C}(\text{S})-\text{N}$  or  $\text{N}=\text{C}(\text{S})-\text{S}-\text{S}-\text{C}(\text{S})-\text{N}$ ); Sulfinylamines ( $-\text{N}=\text{SO}$ ); Sulfonylamine ( $-\text{N}=\text{SO}_2$ ) (isothioureas A61K 31/155) [2, 7]  
 31/15 • • Oximes ( $\text{C}=\text{N}-\text{O}-$ ); Hydrazines ( $\text{N}-\text{N}$ ); Hydrazones ( $\text{N}=\text{N}=\text{N}$ ) [2]  
 31/155 • • Amidines ( $-\text{N}=\text{C}(\text{N})-\text{N}$ ), e.g. guanidine ( $\text{H}_2\text{N}-\text{C}(=\text{NH})-\text{NH}_2$ ), isourea ( $\text{HN}=\text{C}(\text{OH})\text{NH}_2$ ), isothiurea ( $\text{HN}=\text{C}(\text{SH})-\text{NH}_2$ ) [2]  
 31/16 • Amides, e.g. hydroxamic acids [2]  
 31/164 • • of a carboxylic acid with an aminoalcohol, e.g. ceramides [7]  
 31/165 • • having aromatic rings, e.g. colchicine, atenolol, progabide [2]  
 31/166 • • • having the carbon atom of a carboxamide group directly attached to the aromatic ring, e.g. procainamide, procabazine, metoclopramide, labetalol [7]  
 31/167 • • • having the nitrogen atom of a carboxamide group directly attached to the aromatic ring, e.g. lidocaine, paracetamol [7]  
 31/17 • • having the group  $\text{N}-\text{C}(\text{O})-\text{N}$  or  $\text{N}-\text{C}(\text{S})-\text{N}$ , e.g. urea, thiourea, carmustine (isoureas, isothiureas A61K 31/155; sulfonylureas A61K 31/64) [2, 7]  
 31/175 • • • having the group  $\text{N}-\text{C}(\text{O})-\text{N}$ ,  $\text{N}-\text{C}(\text{O})-\text{N}=\text{N}-$  or  $\text{N}-\text{C}(\text{O})-\text{N}=\text{N}$ , e.g. carbonohydrazides, carbazones, semicarbazides, semicarbazones; Thioanalogues thereof [2, 7]  
 31/18 • • Sulfonamides (compounds containing a para-N-benzene-sulfonyl-N-group A61K 31/63) [2]  
 31/185 • Acids; Anhydrides, halides or salts thereof, e.g. sulfur acids, imidic, hydrazonic or hydroxamic acids (hydroxamic acids A61K 31/16; peroxy acids A61K 31/327) [2, 7]  
 31/19 • • Carboxylic acids, e.g. valproic acid (salicylic acid A61K 31/60) [2, 7]  
 31/191 • • • Acyclic acids having two or more hydroxy groups, e.g. gluconic acid [7]  
 31/192 • • • having aromatic groups, e.g. sulindac, 2-aryl-propionic acids, ethacrynic acid [7]  
 31/194 • • • having two or more carboxyl groups, e.g. succinic, maleic or phthalic acid [7]  
 31/195 • • • having an amino group [2, 7]  
**Note(s)**  
 In this group, the expression "amino group" also covers "acyl amino group".  
 31/196 • • • the amino group being directly attached to a ring, e.g. anthranilic acid, mefenamic acid, diclofenac, chlorambucil [7]  
 31/197 • • • the amino and the carboxyl groups being attached to the same acyclic carbon chain, e.g. gamma-aminobutyric acid (GABA), beta-alanine, epsilon-aminocaproic acid, pantothenic acid (carnitine A61K 31/205) [7]  
 31/198 • • • • Alpha-amino acids, e.g. alanine, edetic acid (EDTA) (betaine A61K 31/205; proline A61K 31/401; tryptophan A61K 31/405; histidine A61K 31/4172; peptides not degraded to individual amino acids A61K 38/00) [7]  
 31/20 • • • having a carboxyl group bound to an acyclic chain of seven or more carbon atoms, e.g. stearic, palmitic or arachidic acid [2]  
 31/201 • • • • having one or two double bonds, e.g. oleic or linoleic acid [7]  
 31/202 • • • • having three or more double bonds, e.g. linolenic acid (eicosanoids, e.g. leukotrienes, A61K 31/557) [7]  
 31/203 • • • • Retinoic acids [7]  
 31/205 • • Amine addition salts of organic acids; Inner quaternary ammonium salts, e.g. betaine, carnitine [2]  
 31/21 • Esters, e.g. nitroglycerine, selenocyanates [2]  
 31/215 • • of carboxylic acids [2]  
 31/216 • • • of acids having aromatic rings, e.g. benactizyne, clofibrate [7]  
 31/22 • • • of acyclic acids, e.g. pravastatin [2]  
 31/221 • • • • with compounds having an amino group, e.g. acetylcholine, acetylcarnitine [7]  
 31/222 • • • • with compounds having aromatic groups, e.g. dipivefrine, ibopamine [7]  
 31/223 • • • • of alpha-amino acids [7]  
 31/225 • • • • Polycarboxylic acids [2]  
 31/23 • • • • of acids having a carboxyl group bound to a chain of seven or more carbon atoms [2]  
 31/231 • • • • • having one or two double bonds [7]  
 31/232 • • • • • having three or more double bonds, e.g. etretinate [7]  
 31/235 • • • having an aromatic ring attached to a carboxyl group [2]  
 31/24 • • • • having an amino or nitro group [2]  
 31/245 • • • • • Amino benzoic acid types, e.g. procaine, novocaine (salicylic acid esters A61K 31/60) [2]

- 31/25 • • • with polyoxyalkylated alcohols, e.g. esters of polyethylene glycol [2]
- 31/255 • • • of sulfoxy acids or sulfur analogues thereof [2]
- 31/26 • • • Cyanate or isocyanate esters; Thiocyanate or isothiocyanate esters [2, 7]
- 31/265 • • • of carbonic, thiocarbonic or thiocarboxylic acids, e.g. thioacetic acid, xanthogenic acid, trithiocarbonic acid [2]
- 31/27 • • • of carbamic or thiocarbamic acids, e.g. meprobamate, carbachol, neostigmine [2]
- 31/275 • Nitriles; Isonitriles [2]
- 31/277 • • • having a ring, e.g. verapamil [7]
- 31/28 • Compounds containing heavy metals [2]
- 31/282 • • • Platinum compounds [7]
- 31/285 • • • Arsenic compounds [2]
- 31/29 • • • Antimony or bismuth compounds [2]
- 31/295 • • • Iron group metal compounds [2]
- 31/30 • • • Copper compounds [2]
- 31/305 • • • Mercury compounds [2]
- 31/31 • • • containing nitrogen [2]
- 31/315 • • • Zinc compounds [2]
- 31/32 • • • Tin compounds [2]
- 31/325 • Carbamic acids; Thiocarbamic acids; Anhydrides or salts thereof (thiurams A61K 31/145) [2]
- 31/327 • Peroxy compounds, e.g. hydroperoxides, peroxides, peroxy acids [7]
- 31/33 • Heterocyclic compounds [2]
- 31/335 • • • having oxygen as the only ring hetero atom, e.g. fungichromin [2]
- 31/336 • • • having three-membered rings, e.g. oxirane, fumagillin [7]
- 31/337 • • • having four-membered rings, e.g. taxol [7]
- 31/34 • • • having five-membered rings with one oxygen as the only ring hetero atom, e.g. isosorbide [2]
- 31/341 • • • • not condensed with another ring, e.g. ranitidine, furosemide, bufetolol, muscarine [7]
- 31/343 • • • • condensed with a carbocyclic ring, e.g. coumaran, bufuralol, befunolol, clobenfurol, amiodarone [7]
- 31/345 • • • • Nitrofurans (nitrofurantoin A61K 31/4178) [2, 7]
- 31/35 • • • having six-membered rings with one oxygen as the only ring hetero atom [2]
- 31/351 • • • • not condensed with another ring [7]
- 31/352 • • • • condensed with carbocyclic rings, e.g. cannabinoids, methantheline [7]
- 31/353 • • • • • 3,4-Dihydrobenzopyrans, e.g. chroman, catechin [7]
- 31/355 • • • • • Tocopherols, e.g. vitamin E [2]
- 31/357 • • • having two or more oxygen atoms in the same ring, e.g. crown ethers, guanadrel [7]
- 31/36 • • • • Compounds containing methylenedioxyphenyl groups, e.g. sesamin [2]
- 31/365 • • • Lactones [2]
- 31/366 • • • • having six-membered rings, e.g. delta-lactones [7]
- 31/37 • • • • Coumarins, e.g. psoralen [2]
- 31/375 • • • • Ascorbic acid, i.e. vitamin C; Salts thereof [2]
- 31/38 • • • having sulfur as a ring hetero atom [2]
- 31/381 • • • having five-membered rings [7]
- 31/382 • • • having six-membered rings, e.g. thioxanthenes (thiothixene A61K 31/496) [7]
- 31/385 • • • having two or more sulfur atoms in the same ring [2]
- 31/39 • • • having oxygen atoms in the same ring [2]
- 31/395 • • • having nitrogen as a ring hetero atom, e.g. guanethidine, rifamycins (rifampin A61K 31/496) [2, 7]
- 31/396 • • • having three-membered rings, e.g. aziridine [7]
- 31/397 • • • having four-membered rings, e.g. azetidine [7]
- 31/40 • • • having five-membered rings with one nitrogen as the only ring hetero atom, e.g. sulpiride, succinimide, tolmetin, buflomedil [2]
- 31/401 • • • • Proline; Derivatives thereof, e.g. captopril [7]
- 31/4015 • • • • having oxo groups directly attached to the heterocyclic ring, e.g. piracetam, ethosuximide [7]
- 31/402 • • • • 1-aryl-substituted, e.g. piretanide [7]
- 31/4025 • • • • not condensed and containing further heterocyclic rings, e.g. cromakalim [7]
- 31/403 • • • • condensed with carbocyclic rings, e.g. carbazole [7]
- 31/4035 • • • • • Isoindoles, e.g. phthalimide [7]
- 31/404 • • • • • Indoles, e.g. pindolol [7]
- 31/4045 • • • • • • Indole-alkylamines; Amides thereof, e.g. serotonin, melatonin [7]
- 31/405 • • • • • • Indole-alkanecarboxylic acids; Derivatives thereof, e.g. tryptophan, indomethacin [2]
- 31/407 • • • • condensed with heterocyclic ring systems, e.g. ketorolac, physostigmine [7]
- 31/409 • • • • having four such rings, e.g. porphine derivatives, bilirubin, biliverdine (hemin, hematin A61K 31/555) [7]
- 31/41 • • • having five-membered rings with two or more ring hetero atoms, at least one of which is nitrogen, e.g. tetrazole [2]
- 31/415 • • • • 1,2-Diazoles [2, 7]
- 31/4152 • • • • • having oxo groups directly attached to the heterocyclic ring, e.g. antipyrine, phenylbutazone, sulfinpyrazone [7]
- 31/4155 • • • • • not condensed and containing further heterocyclic rings [7]
- 31/416 • • • • • condensed with carbocyclic ring systems, e.g. indazole [7]
- 31/4162 • • • • • condensed with heterocyclic ring systems [7]
- 31/4164 • • • • • 1,3-Diazoles [7]
- 31/4166 • • • • • having oxo groups directly attached to the heterocyclic ring, e.g. phenytoin [7]
- 31/4168 • • • • • having a nitrogen atom attached in position 2, e.g. clonidine [7]
- 31/417 • • • • • Imidazole-alkylamines, e.g. histamine, phentolamine [7]
- 31/4172 • • • • • Imidazole-alkanecarboxylic acids, e.g. histidine [7]
- 31/4174 • • • • • Arylalkylimidazoles, e.g. oxymetazolin, naphazoline, miconazole [7]
- 31/4178 • • • • • not condensed and containing further heterocyclic rings, e.g. pilocarpine, nitrofurantoin [7]
- 31/4184 • • • • • condensed with carbocyclic rings, e.g. benzimidazoles [7]
- 31/4188 • • • • • condensed with heterocyclic ring systems, e.g. biotin, sorbinil [7]
- 31/4192 • • • • • 1,2,3-Triazoles [7]
- 31/4196 • • • • • 1,2,4-Triazoles [7]

- 31/42 • • • • Oxazoles [2, 7]
- 31/421 • • • • 1,3-Oxazoles, e.g. pemoline, trimethadione [7]
- 31/422 • • • • not condensed and containing further heterocyclic rings [7]
- 31/423 • • • • condensed with carbocyclic rings [7]
- 31/424 • • • • condensed with heterocyclic ring systems, e.g. clavulanic acid [7]
- 31/4245 • • • • Oxadiazoles [7]
- 31/425 • • • • Thiazoles [2, 7]
- 31/426 • • • • 1,3-Thiazoles [7]
- 31/427 • • • • not condensed and containing further heterocyclic rings [7]
- 31/428 • • • • condensed with carbocyclic rings [7]
- 31/429 • • • • condensed with heterocyclic ring systems [7]
- 31/43 • • • • Compounds containing 4-thia-1-azabicyclo [3.2.0] heptane ring systems, i.e. compounds containing a ring system of the formula
- C<sub>6</sub>-C<sub>5</sub>-S<sub>4</sub>-C<sub>3</sub>-C<sub>2</sub>-N<sub>1</sub>, e.g. penicillins, penems [2, 6]
- 31/431 • • • • containing further heterocyclic ring systems, e.g. ticarcillin, azlocillin, oxacillin [7]
- 31/433 • • • • Thiadiazoles [7]
- 31/435 • • • having six-membered rings with one nitrogen as the only ring hetero atom [2]
- 31/4353 • • • • ortho- or peri-condensed with heterocyclic ring systems [7]
- 31/4355 • • • • the heterocyclic ring system containing a five-membered ring having oxygen as a ring hetero atom [7]
- 31/436 • • • • the heterocyclic ring system containing a six-membered ring having oxygen as a ring hetero atom, e.g. rapamycin [7]
- 31/4365 • • • • the heterocyclic ring system having sulfur as a ring hetero atom, e.g. ticlopidine [7]
- 31/437 • • • • the heterocyclic ring system containing a five-membered ring having nitrogen as a ring hetero atom, e.g. indolizine, beta-carboline [7]
- 31/4375 • • • • the heterocyclic ring system containing a six-membered ring having nitrogen as a ring hetero atom, e.g. quinolizines, naphthyridines, berberine, vincamine [7]
- 31/438 • • • • the ring being spiro-condensed with carbocyclic or heterocyclic ring systems [7]
- 31/439 • • • • the ring forming part of a bridged ring system, e.g. quinuclidine (8-azabicyclo [3.2.1] octanes A61K 31/46) [7]
- 31/44 • • • • Non-condensed pyridines; Hydrogenated derivatives thereof [2, 7]
- 31/4402 • • • • only substituted in position 2, e.g. pheniramine, bisacodyl [7]
- 31/4406 • • • • only substituted in position 3, e.g. zimeldine (nicotinic acid A61K 31/455) [7]
- 31/4409 • • • • only substituted in position 4, e.g. isoniazid, iproniazid [7]
- 31/4412 • • • • having oxo groups directly attached to the heterocyclic ring [7]
- 31/4415 • • • • Pyridoxine, i.e. vitamin B<sub>6</sub> (pyridoxal phosphate A61K 31/675) [7]
- 31/4418 • • • • having a carbocyclic ring directly attached to the heterocyclic ring, e.g. cyproheptadine [7]
- 31/4422 • • • • 1,4-Dihydropyridines, e.g. nifedipine, nicardipine [7]
- 31/4425 • • • • Pyridinium derivatives, e.g. pralidoxime, pyridostigmine [7]
- 31/4427 • • • • containing further heterocyclic ring systems [7]
- 31/443 • • • • containing a five-membered ring with oxygen as a ring hetero atom [7]
- 31/4433 • • • • containing a six-membered ring with oxygen as a ring hetero atom [7]
- 31/4436 • • • • containing a heterocyclic ring having sulfur as a ring hetero atom [7]
- 31/4439 • • • • containing a five-membered ring with nitrogen as a ring hetero atom, e.g. omeprazole (nicotine A61K 31/465) [7]
- 31/444 • • • • containing a six-membered ring with nitrogen as a ring hetero atom, e.g. amrinone [7]
- 31/445 • • • • Non-condensed piperidines, e.g. piperocaine [2, 7]
- 31/4453 • • • • only substituted in position 1, e.g. propipocaine, diperodon [7]
- 31/4458 • • • • only substituted in position 2, e.g. methylphenidate [7]
- 31/4462 • • • • only substituted in position 3 [7]
- 31/4465 • • • • only substituted in position 4 [7]
- 31/4468 • • • • having a nitrogen atom directly attached in position 4, e.g. clebopride, fentanyl [7]
- 31/45 • • • • having oxo groups directly attached to the heterocyclic ring, e.g. cycloheximide [2, 7]
- 31/451 • • • • having a carbocyclic ring directly attached to the heterocyclic ring, e.g. glutethimide, meperidine, loperamide, phencyclidine, piminodine [7]
- 31/4515 • • • • having a butyrophenone group in position 1, e.g. haloperidol (pipamperone A61K 31/4545) [7]
- 31/452 • • • • Piperidinium derivatives (pancuronium A61K 31/58) [7]
- 31/4523 • • • • containing further heterocyclic ring systems [7]
- 31/4525 • • • • containing a five-membered ring with oxygen as a ring hetero atom [7]
- 31/453 • • • • containing a six-membered ring with oxygen as a ring hetero atom [7]
- 31/4535 • • • • containing a heterocyclic ring having sulfur as a ring hetero atom, e.g. pizotifen [7]
- 31/454 • • • • containing a five-membered ring with nitrogen as a ring hetero atom, e.g. pimozide, domperidone [7]
- 31/4545 • • • • containing a six-membered ring with nitrogen as a ring hetero atom, e.g. pipamperone, anabesine [7]
- 31/455 • • • • Nicotinic acid, i.e. niacin; Derivatives thereof, e.g. esters, amides [2]
- 31/46 • • • • 8-Azabicyclo [3.2.1] octane; Derivatives thereof, e.g. atropine, cocaine [2]
- 31/465 • • • • Nicotine; Derivatives thereof [2]

- 31/47 • • • • Quinolines; Isoquinolines [2]  
 31/4704 • • • • 2-Quinolines, e.g. carbostyryl [7]  
 31/4706 • • • • 4-Aminoquinolines; 8-Aminoquinolines, e.g. chloroquine, primaquine [7]  
 31/4709 • • • • Non-condensed quinolines containing further heterocyclic rings [7]  
 31/472 • • • • Non-condensed isoquinolines, e.g. papaverine [7]  
 31/4725 • • • • • containing further heterocyclic rings [7]  
 31/473 • • • • ortho- or peri-condensed with carbocyclic ring systems, e.g. acridines, phenanthridines [7]  
 31/4738 • • • • ortho- or peri-condensed with heterocyclic ring systems [7]  
 31/4741 • • • • • condensed with ring systems having oxygen as a ring hetero atom, e.g. tubocurarin derivatives, noscapine, bicuculline [7]  
 31/4743 • • • • • condensed with ring systems having sulfur as a ring hetero atom [7]  
 31/4745 • • • • • condensed with ring systems having nitrogen as a ring hetero atom, e.g. phenanthrolines (yohimbine derivatives, vinblastine A61K 31/475; ergoline derivatives A61K 31/48) [7]  
 31/4747 • • • • • spiro-condensed [7]  
 31/4748 • • • • • forming part of bridged ring systems (strychnine A61K 31/475; morphinan derivatives A61K 31/485) [7]  
 31/475 • • • • • having an indole ring, e.g. yohimbine, reserpine, strychnine, vinblastine (vincamine A61K 31/4375) [2, 7]  
 31/48 • • • • Ergoline derivatives, e.g. lysergic acid, ergotamine [2, 7]  
 31/485 • • • • Morphinan derivatives, e.g. morphine, codeine [2, 7]  
 31/49 • • • • Cinchonan derivatives, e.g. quinine [2, 7]  
 31/495 • • • • having six-membered rings with two nitrogen atoms as the only ring hetero atoms, e.g. piperazine (A61K 31/48 takes precedence) [2]  
 31/496 • • • • Non-condensed piperazines containing further heterocyclic rings, e.g. rifampin, thiothixene [7]  
 31/4965 • • • • Non-condensed pyrazines [7]  
 31/497 • • • • • containing further heterocyclic rings [7]  
 31/498 • • • • Pyrazines or piperazines ortho- or peri-condensed with carbocyclic ring systems, e.g. quinoxaline, phenazine [7]  
 31/4985 • • • • Pyrazines or piperazines ortho- or peri-condensed with heterocyclic ring systems [7]  
 31/499 • • • • Spiro-condensed pyrazines or piperazines [7]  
 31/4995 • • • • Pyrazines or piperazines forming part of bridged ring systems [7]  
 31/50 • • • • Pyridazines; Hydrogenated pyridazines [2, 7]  
 31/501 • • • • • not condensed and containing further heterocyclic rings [7]  
 31/502 • • • • • ortho- or peri-condensed with carbocyclic ring systems, e.g. cinnoline, phthalazine [7]  
 31/5025 • • • • • ortho- or peri-condensed with heterocyclic ring systems [7]  
 31/503 • • • • • spiro-condensed [7]  
 31/504 • • • • • forming part of bridged ring systems [7]  
 31/505 • • • • Pyrimidines; Hydrogenated pyrimidines, e.g. trimethoprim [2, 7]  
 31/506 • • • • • not condensed and containing further heterocyclic rings [7]  
 31/51 • • • • • Thiamines, e.g. vitamin B<sub>1</sub> [2]  
 31/513 • • • • • having oxo groups directly attached to the heterocyclic ring, e.g. cytosine [7]  
 31/515 • • • • • Barbituric acids; Derivatives thereof, e.g. sodium pentobarbital [2]  
 31/517 • • • • • ortho- or peri-condensed with carbocyclic ring systems, e.g. quinazoline, perimidine [7]  
 31/519 • • • • • ortho- or peri-condensed with heterocyclic rings [7]  
 31/52 • • • • • Purines, e.g. adenine [2, 7]  
 31/522 • • • • • having oxo groups directly attached to the heterocyclic ring, e.g. hypoxanthine, guanine, acyclovir [7]  
 31/525 • • • • • Isoalloxazines, e.g. riboflavins, vitamin B<sub>2</sub> [2]  
 31/527 • • • • • spiro-condensed [7]  
 31/529 • • • • • forming part of bridged ring systems [7]  
 31/53 • • • • having six-membered rings with three nitrogens as the only ring hetero atoms, e.g. chlorazanyl, melamine (melarsoprol A61K 31/555) [2]  
 31/535 • • • • having six-membered rings with at least one nitrogen and at least one oxygen as the ring hetero atoms, e.g. 1,2-oxazines [2]  
 31/5355 • • • • Non-condensed oxazines containing further heterocyclic rings [7]  
 31/536 • • • • ortho- or peri-condensed with carbocyclic ring systems [7]  
 31/5365 • • • • ortho- or peri-condensed with heterocyclic ring systems [7]  
 31/537 • • • • spiro-condensed or forming part of bridged ring systems [7]  
 31/5375 • • • • 1,4-Oxazines, e.g. morpholine [7]  
 31/5377 • • • • • not condensed and containing further heterocyclic rings, e.g. timolol [7]  
 31/538 • • • • • ortho- or peri-condensed with carbocyclic ring systems [7]  
 31/5383 • • • • • ortho- or peri-condensed with heterocyclic ring systems [7]  
 31/5386 • • • • • spiro-condensed or forming part of bridged ring systems [7]  
 31/539 • • • • having two or more oxygen atoms in the same ring, e.g. dioxazines [7]  
 31/5395 • • • • having two or more nitrogen atoms in the same ring, e.g. oxadiazines [7]  
 31/54 • • • • having six-membered rings with at least one nitrogen and at least one sulfur as the ring hetero atoms, e.g. sulthiame [2]  
 31/541 • • • • Non-condensed thiazines containing further heterocyclic rings [7]  
 31/5415 • • • • ortho- or peri-condensed with carbocyclic ring systems, e.g. phenothiazine, chlorpromazine, piroxicam [7]  
 31/542 • • • • ortho- or peri-condensed with heterocyclic ring systems [7]

- 31/545 • • • • • Compounds containing 5-thia-1-azabicyclo [4.2.0] octane ring systems, i.e. compounds containing a ring system



of the formula  $\text{C}_7\text{H}_{11}\text{NS}$ , e.g. cephalosporins, cefaclor, cephalexine [2, 6]

- 31/546 • • • • • containing further heterocyclic rings, e.g. cephalothin [7]
- 31/547 • • • • • spiro-condensed or forming part of bridged ring systems [7]
- 31/548 • • • • • having two or more sulfur atoms in the same ring [7]
- 31/549 • • • • • having two or more nitrogen atoms in the same ring, e.g. hydrochlorothiazide [7]
- 31/55 • • • • • having seven-membered rings, e.g. azelastine, pentylentetrazole [2]
- 31/551 • • • • • having two nitrogens as ring hetero atoms, e.g. clozapine, dilazep [7]
- 31/5513 • • • • • 1,4-Benzodiazepines, e.g. diazepam [7]
- 31/5517 • • • • • condensed with five-membered rings having nitrogen as a ring hetero atom, e.g. imidazobenzodiazepines, triazolam [7]
- 31/553 • • • • • having at least one nitrogen and at least one oxygen as ring hetero atoms, e.g. loxapine, staurosporine [7]
- 31/554 • • • • • having at least one nitrogen and at least one sulfur as ring hetero atoms, e.g. clothiapine, diltiazem [7]
- 31/555 • • • • • containing heavy metals, e.g. hemin, hematin, melarsoprol [2]
- 31/557 • Eicosanoids, e.g. leukotrienes [3, 7]
- 31/5575 • • having a cyclopentane ring, e.g. prostaglandin  $\text{E}_2$ , prostaglandin  $\text{F}_{2\text{-}\alpha}$  [7]
- 31/5578 • • having a pentalene ring system, e.g. carbacyclin, iloprost [7]
- 31/558 • • having heterocyclic rings containing oxygen as the only ring hetero atom, e.g. thromboxanes [7]
- 31/5585 • • • having five-membered rings containing oxygen as the only ring hetero atom, e.g. prostacyclin [7]
- 31/559 • • having heterocyclic rings containing hetero atoms other than oxygen [7]
- 31/56 • Compounds containing cyclopenta[a]hydrophenanthrene ring systems; Derivatives thereof, e.g. steroids [4, 7]

#### Note(s)

Attention is drawn to Note (1) following the title of subclass C07J, which explains what is covered by the term "steroids".

- 31/565 • • • not substituted in position 17 beta by a carbon atom, e.g. oestrane, oestradiol [2]
- 31/566 • • • having an oxo group in position 17, e.g. oestrone [7]
- 31/567 • • • substituted in position 17 alpha, e.g. mestranol, norethandrolone [7]
- 31/568 • • • substituted in positions 10 and 13 by a chain having at least one carbon atom, e.g. androstane, testosterone [7]
- 31/5685 • • • • • having an oxo group in position 17, e.g. androsterone [7]
- 31/569 • • • • • substituted in position 17 alpha, e.g. ethisterone [7]

- 31/57 • • substituted in position 17 beta by a chain of two carbon atoms, e.g. pregnane, progesterone [2]
- 31/573 • • • substituted in position 21, e.g. cortisone, dexamethasone, prednisone [7]
- 31/575 • • substituted in position 17 beta by a chain of three or more carbon atoms, e.g. cholane, cholestane, ergosterol, sitosterol [2]
- 31/58 • • containing heterocyclic rings, e.g. aldosterone, danazol, stanozolol, pancuronium, digitogenin (digitoxin A61K 31/704) [2, 7]
- 31/585 • • • containing lactone rings, e.g. oxandrolone, bufalin [2]
- 31/59 • Compounds containing 9,10-seco-cyclopenta[a]hydro- phenanthrene ring systems [2]
- 31/592 • • 9,10-Secoergostane derivatives, e.g. ergocalciferol, vitamin  $\text{D}_2$  [7]
- 31/593 • • 9,10-Secocholestane derivatives, e.g. cholecalciferol, vitamin  $\text{D}_3$  [7]
- 31/60 • Salicylic acid; Derivatives thereof [2]
- 31/603 • • having further aromatic rings, e.g. diflunisal [7]
- 31/606 • • having amino groups [7]
- 31/609 • • Amides, e.g. salicylamide [7]
- 31/612 • • having the hydroxy group in position 2 esterified, e.g. salicylsulfuric acid (fosfosal A61K 31/661) [7]
- 31/616 • • • by carboxylic acids, e.g. acetylsalicylic acid [7]
- 31/618 • • having the carboxyl group in position 1 esterified, e.g. salsalate [7]
- 31/621 • • • having the hydroxy group in position 2 esterified, e.g. benorylate [7]
- 31/625 • • having heterocyclic substituents, e.g. 4-salicyloylmorpholine (sulfasalazine A61K 31/635) [2, 7]
- 31/63 • Compounds containing para-N-benzene- sulfonyl-N-groups, e.g. sulfanilamide, p-nitrobenzenesulfonohydrazide [2]
- 31/635 • • having a heterocyclic ring, e.g. sulfasalazine [2]
- 31/64 • Sulfonylureas, e.g. glibenclamide, tolbutamide, chlorpropamide [2]
- 31/65 • Tetracyclines [2]
- 31/655 • Azo ( $\text{—N=N—}$ ), diazo ( $\text{=N}_2$ ), azoxy ( $\text{N=O—N}$  or  $\text{N(=O)—N}$ ), azido ( $\text{—N}_3$ ) or diazoamino ( $\text{—N=N—N}$ ) compounds [2]
- 31/66 • Phosphorus compounds [2]
- 31/661 • • Phosphorus acids or esters thereof not having P—C bonds, e.g. fosfosal, dichlorvos, malathion [7]
- 31/6615 • • • Compounds having two or more esterified phosphorus acid groups, e.g. inositol triphosphate, phytic acid [7]
- 31/662 • • Phosphorus acids or esters thereof having P—C bonds, e.g. foscarnet, trichlorfon [7]
- 31/663 • • • Compounds having two or more phosphorus acid groups or esters thereof, e.g. clodronic acid, pamidronic acid [7]
- 31/664 • • Amides of phosphorus acids [7]
- 31/665 • • having oxygen as a ring hetero atom, e.g. fosfomycin [2]
- 31/67 • • having sulfur as a ring hetero atom [2]
- 31/675 • • having nitrogen as a ring hetero atom, e.g. pyridoxal phosphate [2]
- 31/683 • • Diesters of a phosphorus acid with two hydroxy compounds, e.g. phosphatidylinositols [7]
- 31/685 • • • one of the hydroxy compounds having nitrogen atoms, e.g. phosphatidylserine, lecithin [2, 7]
- 31/688 • • • both hydroxy compounds having nitrogen atoms, e.g. sphingomyelins [7]



- 31/69 • Boron compounds [2]  
 31/695 • Silicon compounds [2]  
 31/70 • Carbohydrates; Sugars; Derivatives thereof (sorbitol A61K 31/047) [2, 7]

**Note(s)**

In this group, the expressions are used with the meanings indicated in Note (3) following the title of subclass C07H.

- 31/7004 • • Monosaccharides having only carbon, hydrogen and oxygen atoms [7]  
 31/7008 • • Compounds having an amino group directly attached to a carbon atom of the saccharide radical, e.g. D-galactosamine, ranimustine [7]  
 31/7012 • • Compounds having a free or esterified carboxyl group attached, directly or through a carbon chain, to a carbon atom of the saccharide radical, e.g. glucuronic acid, neuraminic acid (gluconic acid A61K 31/191; ascorbic acid A61K 31/375) [7]  
 31/7016 • • Disaccharides, e.g. lactose, lactulose (lactobionic acid A61K 31/7032) [7]  
 31/702 • • Oligosaccharides, i.e. having three to five saccharide radicals attached to each other by glycosidic linkages [7]  
 31/7024 • • Esters of saccharides [7]  
 31/7028 • • Compounds having saccharide radicals attached to non-saccharide compounds by glycosidic linkages [7]  
 31/7032 • • • attached to a polyol, i.e. compounds having two or more free or esterified hydroxy groups, including the hydroxy group involved in the glycosidic linkage, e.g. monoglucosyl-diacylglycerides, lactobionic acid, gangliosides [7]  
 31/7034 • • • attached to a carbocyclic compound, e.g. phloridzin [7]  
 31/7036 • • • • having at least one amino group directly attached to the carbocyclic ring, e.g. streptomycin, gentamycin, amikacin, validamycin, fortimicins [7]  
 31/704 • • • • attached to a condensed carbocyclic ring system, e.g. sennosides, thiocolchicosides, escin, daunorubicin, digitoxin [7]  
 31/7042 • • Compounds having saccharide radicals and heterocyclic rings [7]  
 31/7048 • • • having oxygen as a ring hetero atom, e.g. leucoglucosan, hesperidin, erythromycin, nystatin [7]  
 31/7052 • • • having nitrogen as a ring hetero atom, e.g. nucleosides, nucleotides [7]  
 31/7056 • • • • containing five-membered rings with nitrogen as a ring hetero atom [7]  
 31/706 • • • • containing six-membered rings with nitrogen as a ring hetero atom [7]  
 31/7064 • • • • • containing condensed or non-condensed pyrimidines [7]  
 31/7068 • • • • • • having oxo groups directly attached to the pyrimidine ring, e.g. cytidine, cytidylic acid [7]  
 31/7072 • • • • • • • having two oxo groups directly attached to the pyrimidine ring, e.g. uridine, uridylic acid, thymidine, zidovudine [7]  
 31/7076 • • • • • • • containing purines, e.g. adenosine, adenylic acid [7]  
 31/708 • • • • • • • having oxo groups directly attached to the purine ring system, e.g. guanosine, guanylic acid [7]  
 31/7084 • • • Compounds having two nucleosides or nucleotides, e.g. nicotinamide-adenine dinucleotide, flavine-adenine dinucleotide [7]  
 31/7088 • • • Compounds having three or more nucleosides or nucleotides [7]  
 31/7105 • • • • Natural ribonucleic acids, i.e. containing only riboses attached to adenine, guanine, cytosine or uracil and having 3'-5' phosphodiester links [7]  
 31/711 • • • • Natural deoxyribonucleic acids, i.e. containing only 2'-deoxyriboses attached to adenine, guanine, cytosine or thymine and having 3'-5' phosphodiester links [7]  
 31/7115 • • • • Nucleic acids or oligonucleotides having modified bases, i.e. other than adenine, guanine, cytosine, uracil or thymine [7]  
 31/712 • • • • Nucleic acids or oligonucleotides having modified sugars, i.e. other than ribose or 2'-deoxyribose [7]  
 31/7125 • • • • Nucleic acids or oligonucleotides having modified internucleoside linkage, i.e. other than 3'-5' phosphodiester [7]  
 31/713 • • • • Double-stranded nucleic acids or oligonucleotides [7]  
 31/7135 • • • Compounds containing heavy metals [7]  
 31/714 • • • • Cobalamins, e.g. cyanocobalamin, vitamin B<sub>12</sub> [7]  
 31/715 • • • Polysaccharides, i.e. having more than five saccharide radicals attached to each other by glycosidic linkages; Derivatives thereof, e.g. ethers, esters [2]  
 31/716 • • • • Glucans [7]  
 31/717 • • • • Celluloses [7]  
 31/718 • • • • Starch or degraded starch, e.g. amylose, amylopectin [7]  
 31/719 • • • • Pullulans [7]  
 31/721 • • • • Dextrans [7]  
 31/722 • • • • Chitin; Chitosan [7]  
 31/723 • • • • Xanthans [7]  
 31/724 • • • • Cyclodextrins [7]  
 31/726 • • • • Glycosaminoglycans, i.e. mucopolysaccharides (chondroitin sulfate, dermatan sulfate A61K 31/737) [7]  
 31/727 • • • • Heparin; Heparan [7]  
 31/728 • • • • Hyaluronic acid [7]  
 31/729 • • • • Agar; Agarose; Agaropectin [7]  
 31/731 • • • • Carrageenans [7]  
 31/732 • • • • Pectin [7]  
 31/733 • • • • Fructosans, e.g. inulin [7]  
 31/734 • • • • Alginic acid [7]  
 31/736 • • • • Glucmannans or galactomannans, e.g. locust bean gum, guar gum [7]  
 31/737 • • • • Sulfated polysaccharides, e.g. chondroitin sulfate, dermatan sulfate (A61K 31/727 takes precedence) [7]  
 31/738 • • • • Cross-linked polysaccharides [7]  
 31/739 • • • • Lipopolysaccharides [7]  
 31/74 • • Synthetic polymeric materials [2]  
 31/745 • • • Polymers of hydrocarbons [2]  
 31/75 • • • • of ethene [2]  
 31/755 • • • • Polymers containing halogen [2]  
 31/76 • • • • of vinyl chloride [2]  
 31/765 • • • • Polymers containing oxygen [2]  
 31/77 • • • • of oxiranes [2]  
 31/775 • • • • Phenolic resins [2]  
 31/78 • • • • of acrylic acid or derivatives thereof [2]

## A61K

- 31/785 • • Polymers containing nitrogen [2]
- 31/787 • • • containing heterocyclic rings having nitrogen as a ring hetero atom [7]
- 31/79 • • • Polymers of vinyl pyrrolidone [2]
- 31/795 • • Polymers containing sulfur [2]
- 31/80 • • Polymers containing hetero atoms not provided for in groups A61K 31/755-A61K 31/795 [2]

### 33/00 Medicinal preparations containing inorganic active ingredients [2]

- 33/02 • Ammonia; Compounds thereof [2]
- 33/04 • Sulfur, selenium or tellurium; Compounds thereof [2]
- 33/06 • Aluminium, calcium or magnesium; Compounds thereof [2]
- 33/08 • • Oxides; Hydroxides [2]
- 33/10 • • Carbonates; Bicarbonates [2]
- 33/12 • • Magnesium silicate [2]
- 33/14 • Alkali metal chlorides; Alkaline earth metal chlorides [2]
- 33/16 • Fluorine compounds [2]
- 33/18 • Iodine; Compounds thereof [2]
- 33/20 • Elemental chlorine; Inorganic compounds releasing chlorine [2]
- 33/22 • Boron compounds [2]
- 33/24 • Heavy metals; Compounds thereof [2]
- 33/26 • • Iron; Compounds thereof [2]
- 33/28 • • Mercury; Compounds thereof [2]
- 33/30 • • Zinc; Compounds thereof [2]
- 33/32 • • Manganese; Compounds thereof [2]
- 33/34 • • Copper; Compounds thereof [2]
- 33/36 • • Arsenic; Compounds thereof [2]
- 33/38 • • Silver; Compounds thereof [2]
- 33/40 • Peroxides [2]
- 33/42 • Phosphorus; Compounds thereof [2]
- 33/44 • Elemental carbon, e.g. charcoal, carbon black [2]

### 35/00 Medicinal preparations containing material or reaction products thereof with undetermined constitution [2]

#### Note(s) [2006.01]

When classifying in this group, classification is also made in group B01D 15/08 insofar as subject matter of general interest relating to chromatography is concerned.

- 35/02 • from inanimate materials [2]
- 35/04 • • Tars; Bitumens; Mineral oils; Ammonium bituminosulfonate, e.g. Ichthyol® [2]
- 35/06 • • • Mineral oils [2]
- 35/08 • • Mineral waters [2]
- 35/10 • • Peat; Amber [2]
- 35/12 • Materials from mammals or birds [2]
- 35/14 • • Blood [2]
- 35/16 • • • Plasma; Serum [2]
- 35/18 • • • Erythrocytes [2]
- 35/20 • • Milk; Colostrum [2]
- 35/22 • • Urine; Urinary system [2]
- 35/23 • • • Kidney [3]
- 35/24 • • Mucus; Mucous glands; Bursa; Arthral fluid; Excreta; Spinal fluid [2]
- 35/26 • • Lymph; Lymph-glands; Thymus [2]
- 35/28 • • Marrow; Spleen [2]
- 35/30 • • Nerves; Brain [2]
- 35/32 • • Bones; Tendons; Teeth; Cartilage (marrow A61K 35/28) [2]

- 35/34 • • Muscles; Heart [2]
- 35/36 • • Skin; Hair; Nails; Sebaceous glands; Cerumen [4]
- 35/37 • • Digestive system [3]
- 35/38 • • • Stomach; Intestine [3]
- 35/39 • • • Pancreas [3]
- 35/407 • • • Liver [3]
- 35/413 • • • Bile [3]
- 35/42 • • Lungs [2]
- 35/44 • • Eyes; Vessels; Umbilical cord [2]
- 35/48 • • Reproductive organs; Embryos [2]
- 35/50 • • • Placenta; Amniotic fluid [2]
- 35/52 • • • Sperm [2]
- 35/54 • • • Ovary; Eggs; Embryos [2]
- 35/55 • • Glands not provided for in one of the preceding subgroups of this main group [3]
- 35/56 • Materials from animals other than mammals or birds [2]
- 35/58 • • Snakes (antigens A61K 39/38) [2]
- 35/60 • • Fish (vitamin A A61K 31/07; vitamin D A61K 31/59) [2]
- 35/62 • • Leeches [2]
- 35/64 • • Insects, e.g. royal jelly [2]
- 35/66 • Materials from micro-organisms [2]
- 35/68 • • Protozoa [2]
- 35/74 • • Bacteria [2]
- 35/76 • • Viruses [2]

### 36/00 Medicinal preparations of undetermined constitution containing material from algae, lichens, fungi or plants, or derivatives thereof, e.g. traditional herbal medicines [2006.01]

#### Note(s) [2006.01]

1. In this group, common names of plants, where given, are presented in brackets following their corresponding Latin names.
2. In this group, it is desirable to add the indexing codes A61K 125/00-A61K 135/00.

- 36/02 • Algae [2006.01]
- 36/03 • • Phaeophycota or phaeophyta (brown algae), e.g. Fucus [2006.01]
- 36/04 • • Rhodophycota or rhodophyta (red algae), e.g. Porphyra [2006.01]
- 36/05 • • Chlorophycota or chlorophyta (green algae), e.g. Chlorella [2006.01]
- 36/06 • Fungi, e.g. yeasts [2006.01]
- 36/062 • • Ascomycota [2006.01]
- 36/064 • • • Saccharomycetales, e.g. baker's yeast [2006.01]
- 36/066 • • • Clavicipitaceae [2006.01]
- 36/068 • • • Cordyceps [2006.01]
- 36/07 • • Basidiomycota, e.g. Cryptococcus [2006.01]
- 36/074 • • • Ganoderma [2006.01]
- 36/076 • • • Poria [2006.01]
- 36/09 • Lichens [2006.01]
- 36/10 • Bryophyta (mosses) [2006.01]
- 36/11 • Pteridophyta or Filicophyta (ferns) [2006.01]
- 36/12 • • Filicopsida or Pteridopsida [2006.01]
- 36/126 • • • Drynaria [2006.01]
- 36/13 • Coniferophyta (gymnosperms) [2006.01]
- 36/14 • • Cupressaceae (Cypress family), e.g. juniper or cypress [2006.01]
- 36/15 • • Pinaceae (Pine family), e.g. pine or cedar [2006.01]
- 36/16 • Ginkgophyta, e.g. Ginkgoaceae (Ginkgo family) [2006.01]

- 36/17 • Gnetophyta, e.g. Ephedraceae (Mormon-tea family) **[2006.01]**
- 36/18 • Magnoliophyta (angiosperms) **[2006.01]**
- 36/185 • • Magnoliopsida (dicotyledons) **[2006.01]**
- 36/19 • • • Acanthaceae (Acanthus family) **[2006.01]**
- 36/195 • • • • Strobilanthes **[2006.01]**
- 36/20 • • • Aceraceae (Maple family) **[2006.01]**
- 36/21 • • • Amaranthaceae (Amaranth family), e.g. pigweed, rockwort or globe amaranth **[2006.01]**
- 36/22 • • • Anacardiaceae (Sumac family), e.g. smoketree, sumac or poison oak **[2006.01]**
- 36/23 • • • Apiaceae or Umbelliferae (Carrot family), e.g. dill, chervil, coriander or cumin **[2006.01]**
- 36/232 • • • • Angelica **[2006.01]**
- 36/233 • • • • Bupleurum **[2006.01]**
- 36/234 • • • • Cnidium (snowparsley) **[2006.01]**
- 36/235 • • • • Foeniculum (fennel) **[2006.01]**
- 36/236 • • • • Ligusticum (licorice-root) **[2006.01]**
- 36/237 • • • • Notopterygium **[2006.01]**
- 36/238 • • • • Saposchnikovia **[2006.01]**
- 36/24 • • • Apocynaceae (Dogbane family), e.g. plumeria or periwinkle **[2006.01]**
- 36/25 • • • Araliaceae (Ginseng family), e.g. ivy, aralia, schefflera or tetrapanax **[2006.01]**
- 36/254 • • • • Acanthopanax or Eleutherococcus **[2006.01]**
- 36/258 • • • • Panax (ginseng) **[2006.01]**
- 36/26 • • • Aristolochiaceae (Birthwort family), e.g. heartleaf **[2006.01]**
- 36/264 • • • • Aristolochia (Dutchman's pipe) **[2006.01]**
- 36/268 • • • • Asarum (wild ginger) **[2006.01]**
- 36/27 • • • Asclepiadaceae (Milkweed family), e.g. hoyo **[2006.01]**
- 36/28 • • • Asteraceae or Compositae (Aster or Sunflower family), e.g. chamomile, feverfew, yarrow or echinacea **[2006.01]**
- 36/282 • • • • Artemisia, e.g. wormwood or sagebrush **[2006.01]**
- 36/284 • • • • Atractylodes **[2006.01]**
- 36/285 • • • • Aucklandia **[2006.01]**
- 36/286 • • • • Carthamus (distaff thistle) **[2006.01]**
- 36/287 • • • • Chrysanthemum, e.g. daisy **[2006.01]**
- 36/288 • • • • Taraxacum (dandelion) **[2006.01]**
- 36/289 • • • • Vladimiria **[2006.01]**
- 36/29 • • • Berberidaceae (Barberry family), e.g. barberry, cohosh or mayapple **[2006.01]**
- 36/296 • • • • Epimedium **[2006.01]**
- 36/30 • • • Boraginaceae (Borage family), e.g. comfrey, lungwort or forget-me-not **[2006.01]**
- 36/31 • • • Brassicaceae or Cruciferae (Mustard family), e.g. broccoli, cabbage or kohlrabi **[2006.01]**
- 36/315 • • • • Isatis, e.g. Dyer's woad **[2006.01]**
- 36/32 • • • Burseraceae (Frankincense family) **[2006.01]**
- 36/324 • • • • Boswellia, e.g. frankincense **[2006.01]**
- 36/328 • • • • Commiphora, e.g. mecca myrrh or balm of Gilead **[2006.01]**
- 36/33 • • • Cactaceae (Cactus family), e.g. pricklypear or Cereus **[2006.01]**
- 36/34 • • • Campanulaceae (Bellflower family) **[2006.01]**
- 36/342 • • • • Adenophora **[2006.01]**
- 36/344 • • • • Codonopsis **[2006.01]**
- 36/346 • • • • Platycodon **[2006.01]**
- 36/35 • • • Caprifoliaceae (Honeysuckle family) **[2006.01]**
- 36/355 • • • • Lonicera (honeysuckle) **[2006.01]**
- 36/36 • • • Caryophyllaceae (Pink family), e.g. babysbreath or soapwort **[2006.01]**
- 36/37 • • • Celastraceae (Staff-tree or Bittersweet family), e.g. tripterygium or spindletree **[2006.01]**
- 36/38 • • • Clusiaceae, Hypericaceae or Guttiferae (Hypericum or Mangosteen family), e.g. common St. Johnswort **[2006.01]**
- 36/39 • • • Convolvulaceae (Morning-glory family), e.g. bindweed **[2006.01]**
- 36/40 • • • Cornaceae (Dogwood family) **[2006.01]**
- 36/41 • • • Crassulaceae (Stonecrop family) **[2006.01]**
- 36/42 • • • Cucurbitaceae (Cucumber family) **[2006.01]**
- 36/424 • • • • Gynostemma **[2006.01]**
- 36/428 • • • • Trichosanthes **[2006.01]**
- 36/43 • • • Cuscutaceae (Dodder family), e.g. Cuscuta epithymum or greater dodder **[2006.01]**
- 36/44 • • • Ebenaceae (Ebony family), e.g. persimmon **[2006.01]**
- 36/45 • • • Ericaceae or Vacciniaceae (Heath or Blueberry family), e.g. blueberry, cranberry or bilberry **[2006.01]**
- 36/46 • • • Eucommiaceae (Eucommia family), e.g. hardy rubber tree **[2006.01]**
- 36/47 • • • Euphorbiaceae (Spurge family), e.g. Ricinus (castorbean) **[2006.01]**
- 36/48 • • • Fabaceae or Leguminosae (Pea or Legume family); Caesalpiniaceae; Mimosaceae; Papilionaceae **[2006.01]**
- 36/481 • • • • Astragalus (milkvetch) **[2006.01]**
- 36/482 • • • • Cassia, e.g. golden shower tree **[2006.01]**
- 36/483 • • • • Gleditsia (locust) **[2006.01]**
- 36/484 • • • • Glycyrrhiza (licorice) **[2006.01]**
- 36/485 • • • • Gueldenstaedtia **[2006.01]**
- 36/486 • • • • Millettia **[2006.01]**
- 36/487 • • • • Psoralea **[2006.01]**
- 36/488 • • • • Pueraria (kudzu) **[2006.01]**
- 36/489 • • • • Sophora, e.g. necklacepod or mamani **[2006.01]**
- 36/49 • • • Fagaceae (Beech family), e.g. oak or chestnut **[2006.01]**
- 36/50 • • • Fumariaceae (Fumitory family), e.g. bleeding heart **[2006.01]**
- 36/505 • • • • Corydalis **[2006.01]**
- 36/51 • • • Gentianaceae (Gentian family) **[2006.01]**
- 36/515 • • • • Gentiana **[2006.01]**
- 36/52 • • • Juglandaceae (Walnut family) **[2006.01]**
- 36/53 • • • Lamiaceae or Labiatae (Mint family), e.g. thyme, rosemary or lavender **[2006.01]**
- 36/532 • • • • Agastache, e.g. giant hyssop **[2006.01]**
- 36/533 • • • • Leonurus (motherwort) **[2006.01]**
- 36/534 • • • • Mentha (mint) **[2006.01]**
- 36/535 • • • • Perilla (beefsteak plant) **[2006.01]**
- 36/536 • • • • Prunella or Brunella (selfheal) **[2006.01]**
- 36/537 • • • • Salvia (sage) **[2006.01]**
- 36/538 • • • • Schizonepeta **[2006.01]**
- 36/539 • • • • Scutellaria (skullcap) **[2006.01]**
- 36/54 • • • Lauraceae (Laurel family), e.g. cinnamon or sassafras **[2006.01]**
- 36/55 • • • Linaceae (Flax family), e.g. Linum **[2006.01]**
- 36/56 • • • Loganiaceae (Logania family), e.g. trumpetflower or pinkroot **[2006.01]**
- 36/57 • • • Magnoliaceae (Magnolia family) **[2006.01]**
- 36/575 • • • • Magnolia **[2006.01]**
- 36/58 • • • Meliaceae (Chinaberry or Mahogany family), e.g. Azadirachta (neem) **[2006.01]**
- 36/59 • • • Menispermaceae (Moonseed family), e.g. hyperbaena or coralbead **[2006.01]**

- 36/60 • • • Moraceae (Mulberry family), e.g. breadfruit or fig **[2006.01]**
- 36/605 • • • • Morus (mulberry) **[2006.01]**
- 36/61 • • • Myrtaceae (Myrtle family), e.g. teatree or eucalyptus **[2006.01]**
- 36/62 • • • Nymphaeaceae (Water-lily family) **[2006.01]**
- 36/63 • • • Oleaceae (Olive family), e.g. jasmine, lilac or ash tree **[2006.01]**
- 36/634 • • • • Forsythia **[2006.01]**
- 36/638 • • • • Ligustrum, e.g. Chinese privet **[2006.01]**
- 36/64 • • • Orobanchaceae (Broom-rape family) **[2006.01]**
- 36/65 • • • Paeoniaceae (Peony family), e.g. Chinese peony **[2006.01]**
- 36/66 • • • Papaveraceae (Poppy family), e.g. bloodroot **[2006.01]**
- 36/67 • • • Piperaceae (Pepper family), e.g. Jamaican pepper or kava **[2006.01]**
- 36/68 • • • Plantaginaceae (Plantain Family) **[2006.01]**
- 36/69 • • • Polygalaceae (Milkwort family) **[2006.01]**
- 36/70 • • • Polygonaceae (Buckwheat family), e.g. spineflower or dock **[2006.01]**
- 36/704 • • • • Polygonum, e.g. knotweed **[2006.01]**
- 36/708 • • • • Rheum (rhubarb) **[2006.01]**
- 36/71 • • • Ranunculaceae (Buttercup family), e.g. larkspur, hepatica, hydrastis, columbine or goldenseal **[2006.01]**
- 36/714 • • • • Aconitum (monkshood) **[2006.01]**
- 36/716 • • • • Clematis (leather flower) **[2006.01]**
- 36/718 • • • • Coptis (goldthread) **[2006.01]**
- 36/72 • • • Rhamnaceae (Buckthorn family), e.g. buckthorn, chewstick or umbrella-tree **[2006.01]**
- 36/725 • • • • Ziziphus, e.g. jujube **[2006.01]**
- 36/73 • • • Rosaceae (Rose family), e.g. strawberry, chokeberry, blackberry, pear or firethorn **[2006.01]**
- 36/732 • • • • Chaenomeles, e.g. flowering quince **[2006.01]**
- 36/734 • • • • Crataegus (hawthorn) **[2006.01]**
- 36/736 • • • • Prunus, e.g. plum, cherry, peach, apricot or almond **[2006.01]**
- 36/738 • • • • Rosa (rose) **[2006.01]**
- 36/739 • • • • Sanguisorba (burnet) **[2006.01]**
- 36/74 • • • Rubiaceae (Madder family) **[2006.01]**
- 36/744 • • • • Gardenia **[2006.01]**
- 36/746 • • • • Morinda **[2006.01]**
- 36/748 • • • • Oldenlandia or Hedyotis **[2006.01]**
- 36/75 • • • Rutaceae (Rue family) **[2006.01]**
- 36/752 • • • • Citrus, e.g. lime, orange or lemon **[2006.01]**
- 36/754 • • • • Evodia **[2006.01]**
- 36/756 • • • • Phellodendron, e.g. corktree **[2006.01]**
- 36/758 • • • • Zanthoxylum, e.g. pricklyash **[2006.01]**
- 36/76 • • • Salicaceae (Willow family), e.g. poplar **[2006.01]**
- 36/77 • • • Sapindaceae (Soapberry family), e.g. lychee or soapberry **[2006.01]**
- 36/78 • • • Saururaceae (Lizard's-tail family) **[2006.01]**
- 36/79 • • • Schisandraceae (Schisandra family) **[2006.01]**
- 36/80 • • • Scrophulariaceae (Figwort family) **[2006.01]**
- 36/804 • • • • Rehmannia **[2006.01]**
- 36/808 • • • • Scrophularia (figwort) **[2006.01]**
- 36/81 • • • Solanaceae (Potato family), e.g. tobacco, nightshade, tomato, belladonna, capsicum or jimsonweed **[2006.01]**
- 36/815 • • • • Lycium (desert-thorn) **[2006.01]**
- 36/82 • • • Theaceae (Tea family), e.g. camellia **[2006.01]**
- 36/83 • • • Thymelaeaceae (Mezereum family), e.g. leatherwood or false ohelo **[2006.01]**
- 36/835 • • • • Aquilaria **[2006.01]**
- 36/84 • • • Valerianaceae (Valerian family), e.g. valerian **[2006.01]**
- 36/85 • • • Verbenaceae (Verbena family) **[2006.01]**
- 36/855 • • • • Clerodendrum, e.g. glorybower **[2006.01]**
- 36/86 • • • Violaceae (Violet family) **[2006.01]**
- 36/87 • • • Vitaceae or Ampelidaceae (Vine or Grape family), e.g. wine grapes, muscadine or peppervine **[2006.01]**
- 36/88 • • Liliopsida (monocotyledons) **[2006.01]**
- 36/882 • • • Acoraceae (Calamus family), e.g. sweetflag or Acorus calamus **[2006.01]**
- 36/884 • • • Alismataceae (Water-plantain family) **[2006.01]**
- 36/886 • • • Aloeaceae (Aloe family), e.g. aloe vera **[2006.01]**
- 36/888 • • • Araceae (Arum family), e.g. caladium, calla lily or skunk cabbage **[2006.01]**
- 36/8884 • • • • Arisaema, e.g. Jack in the pulpit **[2006.01]**
- 36/8888 • • • • Pinellia **[2006.01]**
- 36/889 • • • Arecaceae, Palmae or Palmaceae (Palm family), e.g. date or coconut palm or palmetto **[2006.01]**
- 36/8895 • • • • Calamus, e.g. rattan **[2006.01]**
- 36/89 • • • Cyperaceae (Sedge family) **[2006.01]**
- 36/8905 • • • • Cyperus (flatsedge) **[2006.01]**
- 36/894 • • • Dioscoreaceae (Yam family) **[2006.01]**
- 36/8945 • • • • Dioscorea, e.g. yam, Chinese yam or water yam **[2006.01]**
- 36/896 • • • Liliaceae (Lily family), e.g. daylily, plantain lily, Hyacinth or narcissus **[2006.01]**
- 36/8962 • • • • Allium, e.g. garden onion, leek, garlic or chives **[2006.01]**
- 36/8964 • • • • Anemarrhena **[2006.01]**
- 36/8965 • • • • Asparagus, e.g. garden asparagus or asparagus fern **[2006.01]**
- 36/8966 • • • • Fritillaria, e.g. checker lily or mission bells **[2006.01]**
- 36/8967 • • • • Lilium, e.g. tiger lily or Easter lily **[2006.01]**
- 36/8968 • • • • Ophiopogon (Lilyturf) **[2006.01]**
- 36/8969 • • • • Polygonatum (Solomon's seal) **[2006.01]**
- 36/898 • • • Orchidaceae (Orchid family) **[2006.01]**
- 36/8984 • • • • Dendrobium **[2006.01]**
- 36/8988 • • • • Gastrodia **[2006.01]**
- 36/899 • • • Poaceae or Gramineae (Grass family), e.g. bamboo, corn or sugar cane **[2006.01]**
- 36/8994 • • • • Coix (Job's tears) **[2006.01]**
- 36/8998 • • • • Hordeum (barley) **[2006.01]**
- 36/90 • • • Smilacaceae (Catbrier family), e.g. greenbrier or sarsaparilla **[2006.01]**
- 36/902 • • • Sparganiaceae (Bur-reed family) **[2006.01]**
- 36/904 • • • Stemonaceae (Stemona family), e.g. croomia **[2006.01]**
- 36/906 • • • Zingiberaceae (Ginger family) **[2006.01]**
- 36/9062 • • • • Alpinia, e.g. red ginger or galangal **[2006.01]**
- 36/9064 • • • • Amomum, e.g. round cardamom **[2006.01]**
- 36/9066 • • • • Curcuma, e.g. common turmeric, East Indian arrowroot or mango ginger **[2006.01]**
- 36/9068 • • • • Zingiber, e.g. garden ginger **[2006.01]**

38/00	<b>Medicinal preparations containing peptides</b> (peptides containing beta-lactam rings A61K 31/00; cyclic dipeptides not having in their molecule any other peptide link than those which form their ring, e.g. piperazine-2,5-diones, A61K 31/00; ergoline-based peptides A61K 31/48; containing macromolecular compounds having statistically distributed amino acid units A61K 31/74; medicinal preparations containing antigens or antibodies A61K 39/00; medicinal preparations characterised by the non-active ingredients, e.g. peptides as drug carriers, A61K 47/00) <b>[6]</b>	38/24	• • • • Follicle-stimulating hormone (FSH); Chorionic gonadotropins, e.g. HCG; Luteinising hormone (LH); Thyroid-stimulating hormone (TSH) <b>[6]</b>
		38/25	• • • • Growth hormone-releasing factor (GH-RF) (Somatoliberin) <b>[6]</b>
		38/26	• • • • Glucagons <b>[6]</b>
		38/27	• • • • Growth hormone (GH) (Somatotropin) <b>[6]</b>
		38/28	• • • • Insulins <b>[6]</b>
		38/29	• • • • Parathyroid hormone (parathormone); Parathyroid hormone-related peptides <b>[6]</b>
		38/30	• • • • Insulin-like growth factors (Somatomedins), e.g. IGF-1, IGF-2 <b>[6]</b>
		38/31	• • • • Somatostatins <b>[6]</b>
		38/32	• • • • Thymopoietins <b>[6]</b>
		38/33	• • • • derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin <b>[6]</b>
		38/34	• • • • Melanocyte stimulating hormone (MSH), e.g. alpha- or beta-melanotropin <b>[6]</b>
		38/35	• • • • Corticotropin (ACTH) <b>[6]</b>
		38/36	• • • • Blood coagulation or fibrinolysis factors <b>[6]</b>
		38/37	• • • • Factors VIII <b>[6]</b>
		38/38	• • • • Albumins <b>[6]</b>
		38/39	• • • • Connective tissue peptides, e.g. collagen, elastin, laminin, fibronectin, vitronectin, cold insoluble globulin (CIG) <b>[6]</b>
		38/40	• • • • Transferrins, e.g. lactoferrins, ovotransferrins <b>[6]</b>
		38/41	• • • • Porphyrin- or corrin-ring-containing peptides <b>[6]</b>
		38/42	• • • • Haemoglobins; Myoglobins <b>[6]</b>
		38/43	• • • • Enzymes; Proenzymes; Derivatives thereof <b>[6]</b>
			<b>Note(s)</b> In this group: • proenzymes are classified with the corresponding enzymes; • enzymes are generally categorised according to the "Nomenclature and Classification of Enzymes" of the International Commission of Enzymes. Where appropriate, this designation appears in the subgroups below in parenthesis.
		38/44	• • • • Oxidoreductases (1) <b>[6]</b>
		38/45	• • • • Transferases (2) <b>[6]</b>
		38/46	• • • • Hydrolases (3) <b>[6]</b>
		38/47	• • • • acting on glycosyl compounds (3.2), e.g. cellulases, lactases <b>[6]</b>
		38/48	• • • • acting on peptide bonds (3.4) <b>[6]</b>
		38/49	• • • • • Urokinase; Tissue plasminogen activator <b>[6]</b>
		38/50	• • • • acting on carbon-nitrogen bonds, other than peptide bonds (3.5), e.g. asparaginase <b>[6]</b>
		38/51	• • • • Lyases (4) <b>[6]</b>
		38/52	• • • • Isomerases (5) <b>[6]</b>
		38/53	• • • • Ligases (6) <b>[6]</b>
		38/54	• • • • Mixtures of enzymes or proenzymes covered by more than a single one of groups A61K 38/44-A61K 38/46 or A61K 38/51-A61K 38/53 <b>[6]</b>
		38/55	• • • • Protease inhibitors <b>[6]</b>
		38/56	• • • • from plants <b>[6]</b>
		38/57	• • • • from animals; from humans <b>[6]</b>
		38/58	• • • • from leeches, e.g. hirudin, eglin <b>[6]</b>
38/01	• Hydrolysed proteins; Derivatives thereof <b>[6]</b>		
38/02	• Peptides of undefined number of amino acids; Derivatives thereof <b>[6]</b>		
38/03	• Peptides having up to 20 amino acids in an undefined or only partially defined sequence; Derivatives thereof <b>[6]</b>		
38/04	• Peptides having up to 20 amino acids in a fully defined sequence; Derivatives thereof (gastrins A61K 38/16, somatostatins A61K 38/31, melanotropins A61K 38/34) <b>[6]</b>		
38/05	• • Dipeptides <b>[6]</b>		
38/06	• • Tripeptides <b>[6]</b>		
38/07	• • Tetrapeptides <b>[6]</b>		
38/08	• • Peptides having 5 to 11 amino acids <b>[6]</b>		
38/09	• • • Luteinising hormone-releasing hormone (LHRH); Related peptides <b>[6]</b>		
38/10	• • Peptides having 12 to 20 amino acids <b>[6]</b>		
38/11	• • • Oxytocins; Vasopressins; Related peptides <b>[6]</b>		
38/12	• • Cyclic peptides <b>[6]</b>		
38/13	• • Cyclosporins <b>[6]</b>		
38/14	• • Peptides containing saccharide radicals; Derivatives thereof <b>[6]</b>		
38/15	• • Depsipeptides; Derivatives thereof <b>[6]</b>		
38/16	• Peptides having more than 20 amino acids; Gastrins; Somatostatins; Melanotropins; Derivatives thereof <b>[6]</b>		
38/17	• • from animals; from humans <b>[6]</b>		
38/18	• • • Growth factors; Growth regulators <b>[6]</b>		
38/19	• • • Cytokines; Lymphokines; Interferons <b>[6]</b>		
38/20	• • • • Interleukins <b>[6]</b>		
38/21	• • • • Interferons <b>[6]</b>		
38/22	• • • Hormones (derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin A61K 38/33, e.g. corticotropin A61K 38/35) <b>[6]</b>		
38/23	• • • • Calcitonins <b>[6]</b>		

**39/00 Medicinal preparations containing antigens or antibodies** (materials for immunoassay G01N 33/53) [2]

**Note(s)**

1. Preparation of antigen or antibody compositions is also classified in subclass C12N, if the step of cultivating the micro-organism is of interest.
2. Groups A61K 39/002-A61K 39/12cover preparations containing protozoa, bacteria, viruses, or subunits thereof, e.g. membrane parts.

- 39/002 • Protozoa antigens [3]  
 39/005 • • Trypanosoma antigens [3]  
 39/008 • • Leishmania antigens [3]  
 39/012 • • Coccidia antigens [3]  
 39/015 • • Hemosporidia antigens, e.g. Plasmodium antigens [3]  
 39/018 • • • Babesia antigens, e.g. Theileria antigens [3]  
 39/02 • Bacterial antigens [2]  
 39/04 • • Mycobacterium, e.g. Mycobacterium tuberculosis [2, 3]  
 39/05 • • Corynebacterium; Propionibacterium [3]  
 39/07 • • Bacillus [3]  
 39/08 • • Clostridium, e.g. Clostridium tetani [2]  
 39/085 • • Staphylococcus [3]  
 39/09 • • Streptococcus [3]  
 39/095 • • Neisseria [3]  
 39/10 • • Brucella; Bordetella, e.g. Bordetella pertussis [2, 3]  
 39/102 • • Pasteurella; Haemophilus [3]  
 39/104 • • Pseudomonas [3]  
 39/106 • • Vibrio; Campylobacter [3]  
 39/108 • • Escherichia; Klebsiella [3]  
 39/112 • • Salmonella; Shigella [3]  
 39/114 • • Fusobacterium [3]  
 39/116 • • Polyvalent bacterial antigens [3]  
 39/118 • Chlamydiaceae, e.g. Chlamydia trachomatis or Chlamydia psittaci [3]  
 39/12 • Viral antigens [2]  
 39/125 • • Picornaviridae, e.g. calicivirus [3]  
 39/13 • • • Poliovirus [3]  
 39/135 • • • Foot-and-mouth disease virus [3]  
 39/145 • • Orthomyxoviridae, e.g. influenza virus [3]  
 39/15 • • Reoviridae, e.g. calf diarrhea virus [3]  
 39/155 • • Paramyxoviridae, e.g. parainfluenza virus [3]  
 39/165 • • • Mumps or measles virus [3]  
 39/17 • • • Newcastle disease virus [3]  
 39/175 • • • Canine distemper virus [3]  
 39/187 • • Hog cholera virus [3]  
 39/193 • • Equine encephalomyelitis virus [3]  
 39/20 • • Rubella virus [2]  
 39/205 • • Rhabdoviridae, e.g. rabies virus [3]  
 39/21 • • Retroviridae, e.g. equine infectious anemia virus [3]  
 39/215 • • Coronaviridae, e.g. avian infectious bronchitis virus [3]  
 39/225 • • • Porcine transmissible gastroenteritis virus [3]  
 39/23 • • Parvoviridae, e.g. feline panleukopenia virus [3]  
 39/235 • • Adenoviridae [3]  
 39/245 • • Herpesviridae, e.g. herpes simplex virus [3]  
 39/25 • • • Varicella-zoster virus [3]  
 39/255 • • • Marek's disease virus [3]  
 39/265 • • • Infectious rhinotracheitis virus [3]  
 39/27 • • • Equine rhinopneumonitis virus [3]

- 39/275 • • Poxviridae, e.g. avipoxvirus [3]  
 39/285 • • • Vaccinia virus or variola virus [3]  
 39/29 • • Hepatitis virus [3]  
 39/295 • • Polyvalent viral antigens (vaccinia virus or variola virus A61K 39/285); Mixtures of viral and bacterial antigens [3]  
 39/35 • Allergens [3]  
 39/36 • • from pollen [2, 3]  
 39/38 • Antigens from snakes [2]  
 39/385 • Haptens or antigens, bound to carriers [3]  
 39/39 • characterised by the immunostimulating additives, e.g. chemical adjuvants [3]  
 39/395 • Antibodies (agglutinins A61K 38/36); Immunoglobulins; Immune serum, e.g. antilymphocytic serum [3]  
 39/40 • • bacterial [2, 3]  
 39/42 • • viral [2, 3]  
 39/44 • • Antibodies bound to carriers [2, 3]  
 41/00 **Medicinal preparations obtained by treating materials with wave energy or particle radiation** (A61K 31/59 takes precedence) [2]  
 45/00 **Medicinal preparations containing active ingredients not provided for in groups A61K 31/00-A61K 41/00** [2, 6]  
 45/06 • Mixtures of active ingredients without chemical characterisation, e.g. antiphlogistics and cardiaca [2]  
 45/08 • Mixtures of an active ingredient and an auxiliary substance neither being chemically characterised, e.g. antihistaminicum and surface active substance [2]  
 47/00 **Medicinal preparations characterised by the non-active ingredients used, e.g. carriers, inert additives** [2]  
 47/02 • Inorganic compounds [5]  
 47/04 • • Non-metals; Compounds thereof [5]  
 47/06 • Organic compounds [5]  
 47/08 • • containing oxygen [5]  
 47/10 • • • Alcohols; Phenols; Salts thereof [5]  
 47/12 • • • Carboxylic acids; Salts or anhydrides thereof [5]  
 47/14 • • • Esters of carboxylic acids [5]  
 47/16 • • containing nitrogen [5]  
 47/18 • • • Amines; Quaternary ammonium compounds [5]  
 47/20 • • containing sulfur [5]  
 47/22 • • Heterocyclic compounds [5]  
 47/24 • • containing atoms other than carbon, hydrogen, halogen, oxygen, nitrogen or sulfur [5]  
 47/26 • • Carbohydrates [5]  
 47/28 • • Steroids [5]  
 47/30 • Macromolecular compounds [5]  
 47/32 • • Macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds [5]  
 47/34 • • Macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds [5]  
 47/36 • • Polysaccharides; Derivatives thereof [5]  
 47/38 • • • Cellulose; Derivatives thereof [5]  
 47/40 • • • Cyclodextrins; Derivatives thereof [5]  
 47/42 • • Proteins; Polypeptides; Degradation products thereof; Derivatives thereof [5]  
 47/44 • Oils, fats or waxes according to more than one of groups A61K 47/02-A61K 47/42 [5]

- 47/46 • Ingredients of undetermined constitution or reaction products thereof [5]
- 47/48 • the non-active ingredient being chemically bound to the active ingredient, e.g. polymer drug conjugates [5]
- 48/00 Medicinal preparations containing genetic material which is inserted into cells of the living body to treat genetic diseases; Gene therapy [5]**
- 49/00 Preparations for testing in vivo [3]**
- 49/04 • X-ray contrast preparations [3]
- 49/06 • Nuclear magnetic resonance (NMR) contrast preparations; Magnetic resonance imaging (MRI) contrast preparations [7]
- 49/08 • • characterised by the carrier [7]
- 49/10 • • • Organic compounds [7]
- 49/12 • • • • Macromolecular compounds [7]
- 49/14 • • • • Peptides, e.g. proteins [7]
- 49/16 • • • • • Antibodies; Immunoglobulins; Fragments thereof [7]
- 49/18 • • characterised by a special physical form, e.g. emulsions, microcapsules, liposomes [7]
- 49/20 • • containing free radicals [7]
- 49/22 • Echographic preparations; Ultrasound imaging preparations [7]
- 50/00 Electrically conductive preparations for use in therapy or testing in vivo, e.g. conductive adhesives or gels to be used with electrodes for electrocardiography (ECG) or for transcutaneous drug administration [2006.01]**
- 51/00 Preparations containing radioactive substances for use in therapy or testing in vivo [6]**
- Note(s)**
- In this group, it is desirable to add the indexing codes of groups A61K 101/00-A61K 103/00.
- 51/02 • characterised by the carrier [6]
- 51/04 • • Organic compounds [6]

- 51/06 • • • Macromolecular compounds [6]
- 51/08 • • • Peptides, e.g. proteins [6]
- 51/10 • • • • Antibodies or immunoglobulins; Fragments thereof [6]
- 51/12 • characterised by a special physical form, e.g. emulsion, microcapsules, liposomes [6]

**Indexing scheme associated with group A61K 51/00, relating to the nature of the radioactive substance. [6]**

- 101/00 Radioactive non-metals [6]**
- 101/02 • Halogens [6]

- 103/00 Radioactive metals [6]**
- 103/10 • Technetium; Rhenium [6]
- 103/20 • Indium [6]
- 103/30 • Rare earths [6]
- 103/32 • • Yttrium [6]
- 103/34 • • Gadolinium [6]
- 103/36 • • Ytterbium [6]
- 103/40 • Actinides [6]

**Indexing scheme associated with group A61K 36/00, relating to plant parts with medicinal activity. [2006.01]**

- 125/00 Containing or obtained from roots, bulbs, tubers, corms or rhizomes [2006.01]**
- 127/00 Containing or obtained from leaves [2006.01]**
- 129/00 Containing or obtained from bark [2006.01]**
- 131/00 Containing or obtained from seeds, nuts, fruits or grains [2006.01]**
- 133/00 Containing or obtained from flowers or blossoms [2006.01]**
- 135/00 Containing or obtained from stems, stalks, branches, twigs or shoots [2006.01]**