SECTION C — CHEMISTRY; METALLURGY

C09 DYES; PAINTS; POLISHES; NATURAL RESINS; ADHESIVES; COMPOSITIONS NOT OTHERWISE PROVIDED FOR; APPLICATIONS OF MATERIALS NOT OTHERWISE PROVIDED FOR

C09B ORGANIC DYES OR CLOSELY-RELATED COMPOUNDS FOR PRODUCING DYES; MORDANTS; LAKES
(fermentation or enzyme-using processes to synthesise a desired chemical compound C12P)

Note(s)

In this subclass, in the absence of an indication to the contrary, a compound is classified in the last appropriate place.

Subclass index

Anthracene dyes

1/00 Dyes with an anthracene nucleus not condensed with any other ring

1/02 • Hydroxy anthraquinones; Ethers or esters thereof
1/04 • • Preparation by synthesis of the nucleus
1/06 • • Preparation from starting materials already containing the anthracene nucleus
1/08 • • • Dyes containing only OH groups
1/10 • • • Dyes containing halogen
1/12 • • • Dyes containing sulfonic acid groups
1/14 • • • Dyes containing ether groups
1/16 • Amino anthraquinones
1/18 • • Preparation by synthesis of the nucleus
1/20 • • Preparation from starting materials already containing the anthracene nucleus
1/22 • • • Dyes with unsubstituted amino groups
1/24 • • • • sulfonated
1/26 • • • Dyes with amino groups substituted by hydrocarbon radicals
1/28 • • • • substituted by alkyl, aralkyl, or cyclo-alkyl groups
1/30 • • • • • sulfonated
1/32 • • • • substituted by aryl groups (anthrimides C09B 1/48)
1/34 • • • • • sulfonated
1/36 • • • Dyes with acylated amino groups
1/38 • • • • Urea or thiourea derivatives

1/40 • • • • the acyl groups being residues of an aliphatic or araliphatic carboxylic acid
1/42 • • • • the acyl groups being residues of an aromatic carboxylic acid
1/43 • • • • • Dicarboxylic acids **[3]**
1/44 • • • • the acyl groups being residues of a heterocyclic carboxylic acid
1/46 • • • • the acyl groups being residues of cyanuric acid or an analogous heterocyclic compound
1/467 • • • • • attached to two or more anthraquinone rings **[3]**
1/473 • • • • the acyl groups being residues of a sulfonic acid **[3]**
1/48 • • • Anthrimides
1/50 • Amino-hydroxy anthraquinones; Ethers or esters thereof
1/503 • • unsubstituted amino-hydroxy anthraquinone **[2]**
1/51 • • N-substituted amino-hydroxy anthraquinone **[2]**
1/514 • • • N-aryl derivatives (N-aralkyl derivatives C09B 1/515) **[2]**
1/515 • • • N-alkyl, N-aralkyl, or N-cycloalkyl derivatives **[2]**
1/516 • • • N-acylated derivatives **[2]**
1/52 • • sulfonated
1/54 • • etherified
1/56 • Mercapto-anthraquinones
1/58 • • with mercapto groups substituted by aliphatic, cycloaliphatic, araliphatic or aryl radicals **[3]**
1/60 • • • substituted by aliphatic, cycloaliphatic or araliphatic radicals **[3]**
1/62 • • with mercapto groups substituted by a heterocyclic ring **[3]**

3/00 Dyes with anthracene nucleus condensed with one or more carbocyclic rings

3/02 • Benzanthrones
3/04 • • Preparation by synthesis of the nucleus
3/06 • • Preparation from starting materials already containing the benzanthrone nucleus
3/08 • • • by halogenation
3/10 • • • Amino derivatives
3/12 • • Dibenzanthronyls
3/14 • Perylene derivatives
3/16 • • Preparation by synthesis of the nucleus
3/18 • • Preparation from starting materials already containing the perylene nucleus
3/20 • • • by halogenation
3/22 • Dibenzanthrones; Isodibenzanthrones
3/24 • • Preparation by synthesis of the nucleus
3/26 • • • from dibenzanthronyls
3/28 • • • from perylene derivatives
3/30 • • Preparation from starting materials already containing the dibenzanthrone or isodibenzanthrone nucleus
3/32 • • • by halogenation
3/34 • • • by oxidation
3/36 • • • by etherification of hydroxy compounds
3/38 • • • by introduction of hydrocarbon or acyl residues into amino groups
3/40 • Pyranthrones
3/42 • • Preparation by synthesis of the nucleus
3/44 • • Preparation from starting materials already containing the pyranthrone nucleus
3/46 • • • by halogenation
3/48 • • • Amino derivatives
3/50 • Dibenzopyrenequinones
3/52 • • Preparation by synthesis of the nucleus
3/54 • • Preparation from starting materials already containing the dibenzopyrenequinone nucleus
3/56 • • • Amino derivatives
3/58 • Benzanthraquinones
3/60 • Anthanthrones
3/62 • • Preparation by synthesis of the nucleus
3/64 • • Preparation from starting materials already containing the anthanthrone nucleus
3/66 • • • by halogenation
3/68 • • • Amino derivatives
3/70 • Benzo-, naphtho-, or anthra-dianthrones
3/72 • • Preparation by synthesis of the nucleus
3/74 • • Preparation from starting materials already containing the benzo-, naphtho-, or anthra-dianthrone nucleus
3/76 • • • by halogenation
3/78 • Other dyes in which the anthracene nucleus is condensed with one or more carbocyclic rings
3/80 • • Preparation by synthesis of the nucleus
3/82 • • Preparation from starting materials already containing the condensed anthracene nucleus

5/00 Dyes with an anthracene nucleus condensed with one or more heterocyclic rings with or without carbocyclic rings

5/02 • the heterocyclic ring being condensed in peri position
5/04 • • Pyrazolanthrones
5/06 • • • Benzanthronyl-pyrazolanthrone condensation products
5/08 • • • Dipyrazolanthrones
5/10 • • Isothiazolanthrones; Isoxazolanthrones; Isoselenazolanthrones
5/12 • • Thiophenanthrones
5/14 • • Benz-azabenzanthrones (anthrapyridones)
5/16 • • Benz-diazabenzanthrones, e.g. anthrapyrimidones
5/18 • • Coeroxene; Coerthiene; Coeramidene; Derivatives thereof
5/20 • • Flavanthrones
5/22 • • • Preparation from starting materials already containing the flavanthrone nucleus
5/24 • the heterocyclic ring(s) being condensed with an anthraquinone nucleus in 1-2 or 2-3 position
5/26 • • Carbazoles of the anthracene series
5/28 • • • Anthrimide carbazoles
5/30 • • 1.2 azoles of the anthracene series
5/32 • • 1.3 azoles of the anthracene series
5/34 • • Anthraquinone acridones or thioxanthones
5/36 • • • Amino acridones
5/38 • • • Compounds containing acridone and carbazole rings
5/40 • • • Condensation products of benzanthronyl-amino anthraquinones
5/42 • • Pyridino anthraquinones
5/44 • • Azines of the anthracene series
5/46 • • • Para-diazines
5/48 • • • • Bis-anthraquinonediazines (indanthrone)
5/50 • • • • • Preparation by alkaline melting of 2-amino anthraquinones
5/52 • • • • • Preparation by condensation of 1.2-halogeno-amino anthraquinones
5/54 • • • • • Preparation from 2-amino anthrahydroquinones

5/56 • • • • • Preparation from starting materials already containing the indanthrene nucleus
5/58 • • • • • • by halogenation
5/60 • • • Thiazines; Oxazines
5/62 • Cyclic imides or amidines of peri-dicarboxylic acids of the anthracene, benzanthrene, or perylene series

6/00 Anthracene dyes not provided for above [2]

7/00 Indigoid dyes
7/02 • Bis-indole indigos
7/04 • • Halogenation thereof
7/06 • Indone-thionaphthene indigos
7/08 • Other indole-indigos
7/10 • Bis-thionaphthene indigos
7/12 • Other thionaphthene indigos

9/00 Esters or ester-salts of leuco compounds of vat dyestuffs
9/02 • of anthracene dyes
9/04 • of indigoid dyes

11/00 Diaryl- or triarylmethane dyes
11/02 • derived from diarylmethanes
11/04 • derived from triarylmethanes
11/06 • • Hydroxy derivatives of triarylmethanes in which at least one —OH group is bound to an aryl nucleus
11/08 • • • Phthaleins
11/10 • • Amino derivatives of triarylmethanes
11/12 • • • without any —OH group bound to an aryl nucleus
11/14 • • • • Preparation from aromatic aldehydes, aromatic carboxylic acids or derivatives thereof, and aromatic amines
11/16 • • • • Preparation from diarylketones or diarylcarbinols
11/18 • • • • Preparation by oxidation
11/20 • • • • Preparation from other triarylmethane derivatives
11/22 • • • containing —OH groups bound to an aryl nucleus
11/24 • • • Phthaleins containing amino groups
11/26 • • Triarylmethane dyes in which at least one of the aromatic nuclei is heterocyclic
11/28 • Pyronines

13/00 Oxyketone dyes
13/02 • of the naphthalene series, e.g. naphthazarin
13/04 • of the pyrene series
13/06 • of the acetophenone series

Acridine, azine, oxazine, or thiazine dyes

15/00 Acridine dyes

17/00 Azine dyes
17/02 • of the benzene series
17/04 • of the naphthalene series
17/06 • Fluorindine or its derivatives

19/00 Oxazine dyes
19/02 • Bisoxazines prepared from amino quinones

21/00 Thiazine dyes

Quinoline or polymethine dyes

23/00 Methine or polymethine dyes, e.g. cyanine dyes
23/01 • characterised by the methine chain **[3]**
23/02 • • containing an odd number of >CH groups **[3]**
23/04 • • • one >CH group, e.g. cyanines, isocyanines, pseudocyanines **[3]**
23/06 • • • three >CH groups, e.g. carbocyanines **[3]**
23/08 • • • more than three >CH groups, e.g. polycarbocyanines **[3]**
23/10 • • containing an even number of >CH groups **[3]**
23/12 • the polymethine chain being branched
23/14 • Styryl dyes
23/16 • the polymethine chain containing hetero atoms

25/00 Quinophthalones

26/00 Hydrazone dyes; Triazene dyes [3]
26/02 • Hydrazone dyes (hydrazone-azo dyes C09B 56/18) **[3]**
26/04 • • cationic **[3]**
26/06 • Triazene dyes (triazene-azo dyes C09B 56/20) **[3]**

Azo dyes

Note(s)

In groups C09B 27/00-C09B 46/00, arrows in the formulae of the various types of azo dyes indicate which part of an azo dye, prepared by diazotising and coupling, is derived from the diazo component and which part is derived from the coupling component. The arrow is pointing to the part derived from the coupling component.

27/00 Azo dyes in which the azo group is formed in any way other than by diazotising and coupling
27/06 • Tartrazines **[3]**

29/00 Monoazo dyes prepared by diazotising and coupling
29/01 • characterised by the diazo component **[3]**
29/02 • • from diazotised o-amino-hydroxy compounds **[3]**
29/03 • • from diazotised o-amino carboxylic acids or o-amino-sulfonic acids **[3]**
29/033 • • from diazotised amines containing a heterocyclic ring **[3]**
29/036 • • • the heterocyclic ring containing only nitrogen as hetero atoms **[3]**
29/039 • • • the heterocyclic ring containing nitrogen and sulfur as hetero atoms **[3]**
29/042 • • • • the hetero ring being a thiazole ring **[3]**
29/045 • • • • • Benzothiazoles **[3]**
29/048 • • • • the hetero ring being a thiadiazole ring **[3]**
29/06 • from coupling components containing amino as the only directing group
29/08 • • Amino benzenes
29/085 • • • coupled with diazotised anilines **[3]**
29/09 • • • coupled with diazotised amines containing heterocyclic rings **[3]**
29/095 • • Amino naphthalenes **[3]**
29/10 • from coupling components containing hydroxy as the only directing group
29/12 • • of the benzene series
29/14 • • • Hydroxy carboxylic acids
29/15 • • of the naphthalene series **[3]**

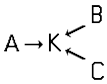
29/16 • • • Naphthol-sulfonic acids **[3]**
29/18 • • ortho-Hydroxy carbonamides
29/20 • • • of the naphthalene series
29/22 • • • of heterocyclic compounds
29/24 • from coupling components containing both hydroxy and amino directing groups
29/26 • • Amino phenols
29/28 • • Amino naphthols
29/30 • • • Amino naphtholsulfonic acid
29/32 • from coupling components containing a reactive methylene group
29/33 • • Aceto- or benzoyl-acetylarylides **[3]**
29/34 • from other coupling components
29/36 • • from heterocyclic compounds
29/40 • • • containing a five-membered ring with one nitrogen atom as the only ring hetero atom **[3]**
29/42 • • • containing a six-membered ring with one nitrogen atom as the only ring hetero atom **[3]**
29/44 • • • • Quinolines or hydrogenated quinolines **[3]**
29/46 • • • 1,2-Diazoles or hydrogenated 1,2-diazoles **[3]**
29/48 • • • • Amino-1,2-diazoles **[3]**
29/50 • • • • 1,2-Diazolones **[3]**
29/52 • • • Diazines **[3]**

31/00 Disazo or polyazo dyes of the type A → B → C, A → B → C → D, or the like, prepared by diazotising and coupling

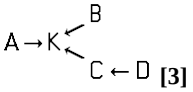
31/02 • Disazo dyes
31/04 • • from a coupling component "C" containing a directive amino group
31/043 • • • Amino benzenes **[3]**
31/047 • • • • containing acid groups, e.g. —COOH, —SO_3H, —PO_3H_2, —OSO_3H, —OPO_2H_2; Salts thereof **[3]**
31/053 • • • Amino naphthalenes **[3]**
31/057 • • • • containing acid groups, e.g. —COOH, —SO_3H, —PO_3H_2, —OSO_3H, —OPO_2H_2; Salts thereof **[3]**
31/06 • • from a coupling component "C" containing a directive hydroxy group
31/062 • • • Phenols **[3]**
31/065 • • • • containing acid groups, e.g. —COOH, —SO_3H, —PO_3H_2, —OSO_3H, —OPO_2H_2; Salts thereof **[3]**
31/068 • • • Naphthols **[3]**
31/072 • • • • containing acid groups, e.g. —COOH, —SO_3H, —PO_3H_2, —OSO_3H, —OPO_2H_2; Salts thereof **[3]**
31/075 • • • ortho-Hydroxy carboxylic acid amides **[3]**
31/078 • • • • containing acid groups, e.g. —COOH, —SO_3H, —PO_3H_2, —OSO_3H, —OPO_2H_2; Salts thereof **[3]**
31/08 • • from a coupling component "C" containing directive hydroxy and amino groups
31/10 • • from a coupling component "C" containing reactive methylene groups
31/11 • • • Aceto- or benzoyl-acetylarylides **[3]**
31/12 • • from other coupling components "C"
31/14 • • • Heterocyclic components
31/143 • • • • 1,2-Diazoles **[3]**
31/147 • • • • • Pyrazoles **[3]**
31/15 • • • • Indoles **[3]**
31/153 • • • • containing a six-membered ring with one nitrogen atom as the only ring hetero atom **[3]**
31/157 • • • • • Quinolines or hydrogenated quinolines **[3]**
31/16 • Trisazo dyes
31/18 • • from a coupling component "D" containing a directive amino group
31/20 • • from a coupling component "D" containing a directive hydroxy group
31/22 • • from a coupling component "D" containing directive hydroxy and amino groups
31/24 • • from a coupling component "D" containing reactive methylene groups
31/26 • • from other coupling components "D"
31/28 • • • Heterocyclic compounds
31/30 • Other polyazo dyes

33/00 Disazo or polyazo dyes of the types A → K ← B, A → B → K ← C, or the like, prepared by diazotising and coupling

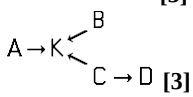
33/02 • Disazo dyes
33/04 • • in which the coupling component is a dihydroxy or polyhydroxy compound
33/044 • • • the coupling component being a bis-phenol **[3]**
33/048 • • • the coupling component being a bis-naphthol **[3]**
33/052 • • • the coupling component being a bis-(naphthol-amine) **[3]**
33/056 • • • the coupling component being a bis-(naphthol-urea) **[3]**
33/06 • • in which the coupling component is a diamine or polyamine
33/08 • • in which the coupling component is a hydroxy-amino compound
33/10 • • • in which the coupling component is an amino naphthol
33/12 • • in which the coupling component is a heterocyclic compound
33/13 • • • the coupling component being a bis-pyrazolone **[3]**
33/147 • • in which the coupling component is a bis-(o-hydroxy carboxylic acid amide) **[3]**
33/153 • • in which the coupling component is a bis-(aceto-acetyl amide) or a bis-(benzoyl-acetylamide) **[3]**
33/16 • • from other coupling components
33/18 • Trisazo or higher polyazo dyes
33/22 • • Trisazo dyes of the type A → B → K ← C **[3]**



33/24 • • Trisazo dyes of the type **[3]**
33/26 • • Tetrazo dyes of the type A → B → C → K ← D **[3]**
33/28 • • Tetrazo dyes of the type A → B → K ← C ← D **[3]**



33/30 • • Tetrazo dyes of the type **[3]**

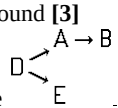


33/32 • • Tetrazo dyes of the type **[3]**

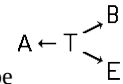
35/00 Disazo or polyazo dyes of the type A ← D → B prepared by diazotising and coupling

35/02 • Disazo dyes
35/021 • • characterised by two coupling components of the same type **[3]**
35/023 • • • in which the coupling component is a hydroxy or polyhydroxy compound **[3]**

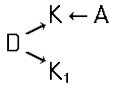
35/025 • • • in which the coupling component is an amine or polyamine **[3]**
35/027 • • • in which the coupling component is a hydroxy-amino compound **[3]**
35/029 • • • • Amino naphthol **[3]**
35/03 • • • in which the coupling component is a heterocyclic compound **[3]**
35/031 • • • • containing a six-membered ring with one nitrogen atom as the only ring hetero atom **[3]**
35/033 • • • in which the coupling component is an arylamide of an o-hydroxy carboxylic acid or of a beta-keto-carboxylic acid **[3]**
35/035 • • • in which the coupling component contains an activated methylene group **[3]**
35/037 • • characterised by two coupling components of different types **[3]**
35/039 • • characterised by the tetrazo component **[3]**
35/04 • • • the tetrazo component being a benzene derivative **[3]**
35/06 • • • the tetrazo component being a naphthalene derivative **[3]**
35/08 • • • the tetrazo component being a derivative of biphenyl **[3]**
35/10 • • • • from two coupling components of the same type **[3]**
35/12 • • • • • from amines **[3]**
35/14 • • • • • from hydroxy compounds **[3]**
35/16 • • • • • from hydroxy amines **[3]**
35/18 • • • • • from heterocyclic compounds **[3]**
35/20 • • • • from two coupling compounds of different types **[3]**
35/205 • • • the tetrazo component being a derivative of a diaryl- or triaryl-alkane or -alkene **[3]**
35/21 • • • • of diarylmethane or triarylmethane **[3]**
35/215 • • • • of diarylethane or diarylethene **[3]**
35/22 • • • the tetrazo component being a derivative of a diaryl ether **[3]**
35/227 • • • the tetrazo component being a derivative of a diaryl sulfide or diaryl polysulfide **[3]**
35/233 • • • the tetrazo component being a derivative of a diaryl ketone or benzil **[3]**
35/24 • • • the tetrazo component being a derivative of a diaryl amine **[3]**
35/26 • • • the tetrazo component being a derivative of a diaryl urea **[3]**
35/28 • • • the tetrazo component containing two aryl nuclei linked by at least one of the groups —CON‹, —SO_2N‹, —SO_2—, or —SO_2O— **[3]**
35/30 • • • • from two identical coupling components **[3]**
35/32 • • • • from two different coupling components **[3]**
35/34 • • • the tetrazo component being heterocyclic **[3]**
35/35 • Trisazo dyes in which the tetrazo component is a diamino-azo-aryl compound **[3]**



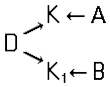
35/36 • Trisazo dyes of the type
35/362 • • D is benzene **[3]**
35/364 • • D is naphthalene **[3]**
35/366 • • D is diphenyl **[3]**
35/368 • • D is a diarylether, a diarylsulfide or a diarylpolysulfide **[3]**
35/37 • • D is a diarylamine **[3]**
35/372 • • D is a diarylurea **[3]**
35/374 • • D contains two aryl nuclei linked by at least one of the groups —CON‹, —SO_2N‹, —SO_2—, or —SO_2O— **[3]**
35/376 • • D is a heterocyclic compound **[3]**



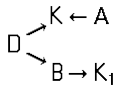
35/378 • Trisazo dyes of the type **[3]**



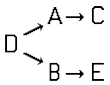
35/38 • Trisazo dyes ot the types
35/40 • • the component K being a dihydroxy or polyhydroxy compound
35/42 • • the component K being a diamine or polyamine
35/44 • • the component K being a hydroxy amine
35/46 • • • the component K being an amino naphthol
35/48 • • the component K being heterocyclic
35/50 • Tetrazo dyes



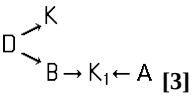
35/52 • • of the type **[3]**



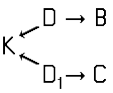
35/54 • • of the type **[3]**



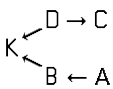
35/56 • • of the type **[3]**



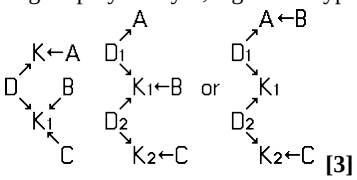
35/58 • • of the type **[3]**



35/60 • • of the type **[3]**



35/62 • • of the type **[3]**
35/64 • Higher polyazo dyes, e.g. of the types



[3]

37/00 Azo dyes prepared by coupling the diazotised amine with itself

39/00 Other azo dyes prepared by diazotising and coupling

41/00 Special methods of performing the coupling reaction

43/00 Preparation of azo dyes from other azo compounds
43/02 • by sulfonation
43/04 • by nitration
43/06 • by oxidation
43/08 • by reduction (deamination C09B 43/44)
43/10 • • with formation of a new azo or an azoxy bridge
43/11 • by introducing hydrocarbon radicals or substituted hydrocarbon radicals on primary or secondary amino groups (formation of an amino group by reduction, e.g. of a nitro group, C09B 43/08) **[3]**
43/12 • by acylation of amino groups
43/124 • • with monocarboxylic acids, carbamic esters or halides, monoisocyanates, or haloformic acid esters **[3]**
43/128 • • • Aliphatic, cycloaliphatic or araliphatic acids **[3]**

43/132 • • • having the carboxyl group directly attached to an aromatic carbocyclic ring **[3]**
43/136 • • with polyfunctional acylating agents **[3]**
43/14 • • • with phosgene or thiophosgene **[3]**
43/145 • • • with polycarboxylic acids **[3]**
43/15 • • • • with formation of cyclic imides of ortho-or peri-dicarboxylic acids **[3]**
43/155 • • • with di- or poly-isocyanates **[3]**
43/16 • • • linking amino-azo compounds with other amino compounds by cyanuric acid or cyanuric acid residues **[3]**
43/18 • by acylation of hydroxy groups
43/20 • • with monocarboxylic acids, carbamic acid esters or halides, monoisocyanates or haloformic acid esters **[3]**
43/22 • • • having the carboxyl group directly attached to an aromatic carbocyclic ring **[3]**
43/24 • • with formation of —O—SO_2—R or —O—SO_3H radicals **[3]**
43/26 • • with polyfunctional acylating agents **[3]**
43/28 • by etherification of hydroxy groups **[3]**
43/30 • by esterification of —COOH or —SO_3H groups **[3]**
43/32 • by reacting carboxyl or sulfonic groups, or derivatives thereof, with amines; by reacting keto groups with amines **[3]**
43/34 • • by reacting ortho- or peri-dicarboxylic dyes **[3]**
43/36 • • with amino anthracene or amino anthraquinone dyes **[3]**
43/38 • • by reacting two or more ortho-hydroxy naphthoic acid dyes with polyamines **[3]**
43/40 • by substituting hetero atoms by radicals containing other hetero atoms **[3]**
43/42 • • by substituting radicals containing hetero atoms for —CN radicals **[3]**
43/44 • by substituting amine groups for hydroxyl groups or hydroxy groups for amine groups; Desacylation of amino-acyl groups; Deaminating **[3]**

44/00 Azo dyes containing onium groups [3]
44/02 • containing ammonium groups not directly attached to an azo group **[3]**
44/04 • • from coupling components containing amino as the only directing group **[3]**
44/06 • • from coupling components containing hydroxyl as the only directing group **[3]**
44/08 • • from coupling components containing heterocyclic rings **[3]**
44/10 • containing cyclammonium groups attached to an azo group by a carbon atom of the ring system **[3]**
44/12 • • having one nitrogen atom as the only ring hetero atom **[3]**
44/14 • • 1,2-Diazoles or hydrogenated 1,2-diazoles **[3]**
44/16 • • 1,3-Diazoles or hydrogenated 1,3-diazoles **[3]**
44/18 • • having three nitrogen atoms as the only ring hetero atoms **[3]**
44/20 • • Thiazoles or hydrogenated thiazoles **[3]**

45/00 Complex metal compounds of azo dyes
45/01 • characterised by the method of metallisation **[3]**
45/02 • Preparation from dyes containing in o-position a hydroxy group and in o1-position hydroxy, alkoxy, carboxyl, amino, or keto groups **[2]**
45/04 • • Azo compounds in general
45/06 • • • Chromium compounds
45/08 • • • Copper compounds
45/10 • • • Cobalt compounds
45/12 • • • other metal compounds
45/14 • • Monoazo compounds
45/16 • • • containing chromium
45/18 • • • containing copper
45/20 • • • containing cobalt
45/22 • • • containing other metals
45/24 • • Disazo or polyazo compounds
45/26 • • • containing chromium
45/28 • • • containing copper
45/30 • • • containing cobalt
45/32 • • • containing other metals
45/34 • Preparation from o-monohydroxy azo compounds having in the o1-position an atom or functional group other than hydroxy, alkoxy, carboxyl, amino, or keto groups
45/36 • • by oxidation of hydrogen in o1-position
45/38 • Preparation from compounds with —OH and —COOH adjacent in the same ring or in peri position
45/40 • • Chromium compounds
45/42 • • Copper compounds
45/44 • • Cobalt compounds
45/46 • • Other metal compounds
45/48 • Preparation from other complex metal compounds of azo dyes

46/00 Azo dyes not provided for in groups C09B 27/00-C09B 45/00 [2]

47/00 Porphines; Azaporphines
47/04 • Phthalocyanines **[3]**
47/06 • • Preparation from carboxylic acids or derivatives thereof **[3]**
47/067 • • • from phthalodinitriles **[3]**
47/073 • • Preparation from isoindolenines **[3]**
47/08 • • Preparation from other phthalocyanine compounds **[3]**
47/10 • • • Obtaining compounds having halogen atoms directly bound to the phthalocyanine skeleton **[3]**
47/12 • • • Obtaining compounds having alkyl radicals, or alkyl radicals substituted by hetero atoms, bound to the phthalocyanine skeleton **[3]**
47/14 • • • • having alkyl radicals substituted by halogen atoms **[3]**
47/16 • • • • having alkyl radicals substituted by nitrogen atoms **[3]**
47/18 • • • Obtaining compounds having oxygen atoms directly bound to the phthalocyanine skeleton **[3]**
47/20 • • • Obtaining compounds having sulfur atoms directly bound to the phthalocyanine skeleton **[3]**
47/22 • • • Obtaining compounds having nitrogen atoms directly bound to the phthalocyanine skeleton **[3]**
47/24 • • • Obtaining compounds having —COOH or —SO_3H radicals, or derivatives thereof, directly bound to the phthalocyanine radical **[3]**
47/26 • • • • Amide radicals **[3]**
47/28 • • Phthalocyanine dyes containing —S—SO_3H radicals **[3]**
47/30 • • Metal-free phthalocyanines **[3]**
47/32 • • Cationic phthalocyanine dyes **[3]**

48/00 Quinacridones

49/00 Sulfur dyes
49/02 • from nitro compounds of the benzene, naphthalene or anthracene series
49/04 • from amino compounds of the benzene, naphthalene or anthracene series
49/06 • from azines, oxazines, thiazines, or thiazoles
49/08 • from urea derivatives
49/10 • from diphenylamines, indamines, or indophenols
49/12 • from other compounds

50/00 Formazane dyes; Tetrazolium dyes [3]
50/02 • Tetrazolium dyes **[3]**
50/04 • Metal-free formazane dyes **[3]**
50/06 • Bis-formazane dyes **[3]**
50/08 • Meso-acyl formazane dyes **[3]**
50/10 • Cationic formazane dyes **[3]**

51/00 Nitro or nitroso dyes

53/00 Quinone imides
53/02 • Indamines; Indophenols

55/00 Azomethine dyes

56/00 Azo dyes containing other chromophoric systems [3]
56/02 • Azomethine-azo dyes **[3]**
56/04 • Stilbene-azo dyes **[3]**
56/06 • • Bis- or poly-stilbene-azo dyes **[3]**
56/08 • Styryl-azo dyes **[3]**
56/10 • Formazane-azo dyes **[3]**
56/12 • Anthraquinone-azo dyes **[3]**
56/14 • Phthalocyanine-azo dyes **[3]**
56/16 • Methine- or polymethine-azo dyes **[3]**
56/18 • Hydrazone-azo dyes **[3]**
56/20 • Triazene-azo dyes **[3]**

57/00 Other synthetic dyes of known constitution
57/02 • Coumarine dyes **[3]**
57/04 • Isoindoline dyes **[3]**
57/06 • Naphtholactam dyes **[3]**
57/08 • Naphthalimide dyes; Phthalimide dyes **[3]**
57/10 • Metal complexes of organic compounds not being dyes in uncomplexed form **[3]**
57/12 • Perinones, i.e. naphthoylene-aryl-imidazoles **[3]**
57/14 • Benzoxanthene dyes; Benzothioxanthene dyes **[3]**

59/00 Artificial dyes of unknown constitution

61/00 Dyes of natural origin prepared from natural sources

62/00 Reactive dyes, i.e. dyes which form covalent bonds with the substrates or which polymerise with themselves [3]
62/002 • with the linkage of the reactive group being alternatively specified **[3]**
62/004 • • Anthracene dyes **[3]**
62/006 • • Azo dyes **[3]**
62/008 • • • Monoazo dyes **[3]**
62/01 • • • Disazo or polyazo dyes **[3]**
62/012 • • • Metal complex azo dyes **[3]**
62/014 • • Nitro dyes **[3]**
62/016 • • Porphines; Azaporphines **[3]**
62/018 • • Formazane dyes **[3]**
62/02 • with the reactive group directly attached to a heterocyclic ring
62/022 • • the heterocyclic ring being alternatively specified **[3]**
62/024 • • • Anthracene dyes **[3]**
62/026 • • • Azo dyes **[3]**
62/028 • • • • Monoazo dyes **[3]**
62/03 • • • • Disazo or polyazo dyes **[3]**
62/032 • • • • Metal complex azo dyes **[3]**
62/034 • • • Nitro dyes **[3]**
62/036 • • • Porphines; Azaporphines **[3]**
62/038 • • • Formazane dyes **[3]**
62/04 • • to a triazine ring
62/06 • • • Anthracene dyes
62/08 • • • Azo dyes
62/085 • • • • Monoazo dyes **[3]**
62/09 • • • • Disazo or polyazo dyes **[3]**
62/095 • • • • Metal complex azo dyes **[3]**
62/10 • • • Porphines; Azaporphines
62/12 • • to a pyridazine ring
62/14 • • • Anthracene dyes
62/16 • • • Azo dyes
62/165 • • • • Monoazo dyes **[3]**
62/17 • • • • Disazo or polyazo dyes **[3]**
62/175 • • • • Metal complex azo dyes **[3]**
62/18 • • • Porphines; Azaporphines
62/20 • • to a pyrimidine ring
62/22 • • • Anthracene dyes
62/24 • • • Azo dyes
62/245 • • • • Monoazo dyes **[3]**
62/25 • • • • Disazo or polyazo dyes **[3]**
62/255 • • • • Metal complex azo dyes **[3]**
62/26 • • • Porphines; Azaporphines
62/28 • • to a pyrazine ring
62/30 • • • Anthracene dyes
62/32 • • • Azo dyes
62/325 • • • • Monoazo dyes **[3]**
62/33 • • • • Disazo or polyazo dyes **[3]**
62/335 • • • • Metal complex azo dyes **[3]**
62/34 • • • Porphines; Azaporphines
62/343 • • to a five-membered ring **[3]**
62/345 • • • Anthracene dyes **[3]**
62/347 • • • Azo dyes **[3]**
62/35 • • • • Monoazo dyes **[3]**
62/353 • • • • Disazo or polyazo dyes **[3]**
62/355 • • • • Metal complex azo dyes **[3]**
62/357 • • • Porphines; Azaporphines **[3]**
62/36 • • to some other heterocyclic ring
62/38 • • • Anthracene dyes
62/40 • • • Azo dyes
62/405 • • • • Monoazo dyes **[3]**
62/41 • • • • Disazo or polyazo dyes **[3]**
62/415 • • • • Metal complex azo dyes **[3]**
62/42 • • • Porphines; Azaporphines
62/44 • with the reactive group not directly attached to a heterocyclic ring
62/443 • • the reactive group being alternatively specified **[3]**
62/445 • • • Anthracene dyes **[3]**
62/447 • • • Azo dyes **[3]**
62/45 • • • • Monoazo dyes **[3]**
62/453 • • • • Disazo or polyazo dyes **[3]**
62/455 • • • • Metal complex azo dyes **[3]**
62/457 • • • Porphines; Azaporphines **[3]**
62/463 • • • Formazane dyes **[3]**

62/465 • • the reactive group being an acryloyl group, a quaternised or non-quaternised aminoalkyl carbonyl group, or a $(—N)_n—CO—A—O—X$ or $(—N)_n—CO—A—Hal$ group, wherein A is an alkylene or alkylidene group, X is hydrogen or an acyl radical of an organic or inorganic acid, Hal is a halogen atom, and n is 0 or 1 **[3]**
62/467 • • • Anthracene dyes **[3]**
62/47 • • • Azo dyes **[3]**
62/473 • • • • Monoazo dyes **[3]**
62/475 • • • • Disazo or polyazo dyes **[3]**
62/477 • • • • Metal complex azo dyes **[3]**
62/483 • • • Porphines; Azaporphines **[3]**
62/485 • • the reactive group being a halo-cyclobutyl-carbonyl, halo-cyclobutyl-vinyl-carbonyl, or halo-cyclobutenyl-carbonyl group **[3]**
62/487 • • • Anthracene dyes **[3]**
62/489 • • • Azo dyes **[3]**
62/491 • • • • Monoazo dyes **[3]**
62/493 • • • • Disazo or polyazo dyes **[3]**
62/495 • • • • Metal complex azo dyes **[3]**
62/497 • • • Porphines; Azaporphines **[3]**
62/503 • • the reactive group being an esterified or non-esterified hydroxyalkyl sulfonyl or mercaptoalkyl sulfonyl group, a quaternised or non-quaternised aminoalkyl sulfonyl group, a heterylmercapto alkyl sulfonyl group, a vinyl sulfonyl or a substituted vinyl sulfonyl group, or a thiophene-dioxide group **[3]**
62/505 • • • Anthracene dyes **[3]**
62/507 • • • Azo dyes **[3]**
62/51 • • • • Monoazo dyes **[3]**
62/513 • • • • Disazo or polyazo dyes **[3]**
62/515 • • • • Metal complex azo dyes **[3]**
62/517 • • • Porphines; Azaporphines **[3]**
62/523 • • the reactive group being an esterified or non-esterified hydroxyalkyl sulfonyl amido or hydroxyalkyl amino sulfonyl group, a quaternised or non-quaternised amino alkyl sulfonyl amido group, or a substituted alkyl amino sulfonyl group, or a halogen alkyl sulfonyl amido or halogen alkyl amino sulfonyl group or a vinyl sulfonylamido or a substituted vinyl sulfonamido group **[3]**
62/525 • • • Anthracene dyes **[3]**
62/527 • • • Azo dyes **[3]**
62/53 • • • • Monoazo dyes **[3]**
62/533 • • • • Disazo or polyazo dyes **[3]**
62/535 • • • • Metal complex azo dyes **[3]**
62/537 • • • Porphines; Azaporphines **[3]**
62/54 • • the reactive group being an epoxy or halohydrin group **[3]**
62/56 • • • Anthracene dyes
62/58 • • • Azo dyes
62/585 • • • • Monoazo dyes **[3]**
62/59 • • • • Disazo or polyazo dyes **[3]**
62/595 • • • • Metal complex azo dyes **[3]**
62/60 • • • Porphines; Azaporphines
62/62 • • the reactive group being an ethylenimino or N-acylated ethylenimino group or a $—CO—NH—CH_2—CH_2—X$ group, wherein X is a halogen atom, a quaternary ammonium group or O-acyl and acyl is derived from an organic or inorganic acid, or a beta-substituted ethylamine group
62/64 • • • Anthracene dyes
62/66 • • • Azo dyes
62/665 • • • • Monoazo dyes **[3]**
62/67 • • • • Disazo or polyazo dyes **[3]**
62/675 • • • • Metal complex azo dyes **[3]**
62/68 • • • Porphines; Azaporphines
62/763 • • the reactive group being a N-methylol group or an O-derivative thereof **[3]**
62/765 • • • Anthracene dyes **[3]**
62/767 • • • Azo dyes **[3]**
62/77 • • • • Monoazo dyes **[3]**
62/773 • • • • Disazo or polyazo dyes **[3]**
62/775 • • • • Metal complex azo dyes **[3]**
62/777 • • • Porphines; Azaporphines **[3]**
62/78 • • with other reactive groups
62/80 • • • Anthracene dyes
62/82 • • • Azo dyes
62/825 • • • • Monoazo dyes **[3]**
62/83 • • • • Disazo or polyazo dyes **[3]**
62/835 • • • • Metal complex azo dyes **[3]**
62/84 • • • Porphines; Azaporphines

Lakes; Mordants; Dyestuff preparations

63/00 Lakes

65/00 Compositions containing mordants

67/00 Influencing the physical, e.g. the dyeing or printing, properties of dyestuffs without chemical reaction, e.g. by treating with solvents; Process features in the making of dyestuff preparations; Dyestuff preparations of a special physical nature, e.g. tablets, films

67/02 • Dyestuff preparations characterised by special physical forms, e.g. tablets, films **[3]**
67/04 • Grinding or milling (C09B 67/14 takes precedence) **[3]**
67/06 • Drying **[3]**
67/08 • Coated particulate pigments or dyes **[3]**
67/10 • Influencing the physical properties by treatment with a liquid, e.g. solvents (C09B 67/14, C09B 67/18, C09B 67/20 take precedence) **[3]**
67/12 • • of phthalocyanines **[3]**
67/14 • Influencing the physical properties by treatment with an acid **[3]**
67/16 • • of phthalocyanines **[3]**
67/18 • Influencing the physical properties by treatment with an amine **[3]**
67/20 • Preparations of organic pigments **[3]**
67/22 • Mixtures of different pigments or dyes or solid solutions of pigments or dyes **[3]**
67/24 • Preparations of acid dyes or reactive dyes **[3]**
67/26 • • in liquid form **[3]**
67/28 • Preparations of vat or sulfur dyes **[3]**
67/30 • • in liquid form **[3]**
67/32 • Preparations of cationic or basic dyes **[3]**
67/34 • • in liquid form **[3]**
67/36 • Azoic dyestuff preparations **[3]**
67/38 • Preparations of disperse dyes **[3]**
67/40 • • in liquid form **[3]**
67/42 • Preparations of dyes not provided for in a single one of groups C09B 67/24-C09B 67/40 **[3]**
67/44 • • Solutions **[3]**
67/46 • • Dispersions **[3]**
67/48 • Crystalline modifications of pigments or dyestuff (C09B 67/24 takes precedence) **[3]**
67/50 • • of phthalocyanines **[3]**

67/52 • • of quinacridones **[3]**
67/54 • Separation; Purification (C09B 67/06, C09B 67/10 take precedence) **[3]**

69/00 Dyes not provided for by a single group of this subclass [2]

69/02 • Dyestuff salts, e.g. salts of acid dyes with basic dyes (for Na, K, or NH_4+ salts of dyes or for chlorides, sulfates or chlorozincates, see the relevant dye groups) **[3]**
69/04 • • of anionic dyes with nitrogen containing compounds **[3]**
69/06 • • of cationic dyes with organic acids **[3]**
69/08 • Dyes containing a splittable water solubilising group **[3]**
69/10 • Polymeric dyes; Reaction products of dyes with monomers or with macromolecular compounds **[3]**

C09C TREATMENT OF INORGANIC MATERIALS, OTHER THAN FIBROUS FILLERS, TO ENHANCE THEIR PIGMENTING OR FILLING PROPERTIES (preparation of inorganic compounds or non-metallic elements C01; treatment of materials specially adapted to enhance their filling properties in mortars, concrete or artificial stone C04B 14/00, C04B 18/00, C04B 20/00)**; PREPARATION OF CARBON BLACK [4]**

Note(s)

In this subclass, in the absence of an indication to the contrary, a compound is classified in the last appropriate place.

1/00 Treatment of specific inorganic materials other than fibrous fillers (luminescent or tenebrescent materials C09K)**; Preparation of carbon black**
1/02 • Compounds of alkaline earth metals or magnesium
1/04 • Compounds of zinc
1/06 • • Lithopone
1/08 • • Zinc chromate
1/10 • Compounds of cadmium
1/12 • • Cadmium sulfoselenide
1/14 • Compounds of lead
1/16 • • White lead
1/18 • • Red lead
1/20 • • Lead chromate
1/22 • Compounds of iron
1/24 • • Oxides of iron
1/26 • • Iron blues
1/28 • Compounds of silicon
1/30 • • Silicic acid
1/32 • • Ultramarine
1/34 • Compounds of chromium
1/36 • Compounds of titanium
1/38 • Compounds of mercury
1/40 • Compounds of aluminium
1/42 • • Clays (preparatory treatment for clay-wares C04B 33/04)
1/44 • Carbon
1/46 • • Graphite (preparation of graphite C01B 31/04)
1/48 • • Carbon black
1/50 • • • Furnace black
1/52 • • • Channel black
1/54 • • • Acetylene black; thermal black
1/56 • • • Treatment of carbon black
1/58 • • • • Agglomerating, pelleting, or the like by wet methods
1/60 • • • • Agglomerating, pelleting, or the like by dry methods
1/62 • Metallic pigments or fillers (obtaining metal powder, see the relevant class for the method used, e.g. B22F 9/00, C21B 15/02, C22B 5/20, C25C 5/00)
1/64 • • Aluminium
1/66 • • Copper alloys, e.g. bronze
1/68 • Loose abrasive particles

3/00 Treatment in general of inorganic materials, other than fibrous fillers, to enhance their pigmenting or filling properties (dyeing other macromolecular particles C08J 3/20; dyeing macromolecular fibres D06P)
3/04 • Physical treatment, e.g. grinding, treatment with ultrasonic vibrations **[2]**
3/06 • Treatment with inorganic compounds **[2]**
3/08 • Treatment with low-molecular-weight organic compounds **[2]**
3/10 • Treatment with macromolecular organic compounds **[2]**
3/12 • Treatment with organosilicon compounds **[2]**

C09D COATING COMPOSITIONS, e.g. PAINTS, VARNISHES OR LACQUERS; FILLING PASTES; CHEMICAL PAINT OR INK REMOVERS; INKS; CORRECTING FLUIDS; WOODSTAINS; PASTES OR SOLIDS FOR COLOURING OR PRINTING; USE OF MATERIALS THEREFOR (cosmetics A61K; processes for applying liquids or other fluent materials to surfaces, in general, B05D; staining wood B27K 5/02; glazes or vitreous enamels C03C; natural resins, French polish, drying-oils, driers, turpentine, per se, C09F; polishing compositions other than French polish, ski waxes C09G; adhesives or use of materials as adhesives C09J; materials for sealing or packing joints or covers C09K 3/10; materials for stopping leaks C09K 3/12; processes for the electrolytic or electrophoretic production of coatings C25D) **[5]**

Note(s)

1. In this subclass, the following terms or expressions are used with the meanings indicated:
   • "use of materials for coating compositions" means the use of known or new polymers or products;

- "rubber" includes:
  a. natural or conjugated diene rubbers;
  b. rubber in general (for a specific rubber, other than a natural rubber or a conjugated diene rubber, see the group provided for coating compositions based on such macromolecular compounds);
- "based on" is defined by means of Note (3), below;
- "filling pastes" means materials used to fill up the holes or cavities of a substrate in order to smooth its surface prior to coating.

2. In this subclass, coating compositions, containing specific organic macromolecular substances are classified only according to the macromolecular substance, non-macromolecular substances not being taken into account.
Example: a coating composition containing polyethene and amino-propyltrimethoxysilane is classified in group C09D 123/06.
However, coating compositions containing combinations of organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond with prepolymers or polymers other than unsaturated polymers of groups C09D 159/00-C09D 187/00 are classified according to the unsaturated non-macromolecular component in group C09D 4/00.
Example: a coating composition containing polyethene and styrene monomer is classified in group C09D 4/00.
Aspects relating to the physical nature of the coating compositions or to the effects produced, as defined in group C09D 5/00, if clearly and explicitly stated, are also classified in this subclass.
Coating compositions characterised by other features, e.g. additives, are classified in group C09D 7/00, unless the macromolecular constituent is specified.

3. In this subclass, coating compositions comprising two or more macromolecular constituents are classified according to the macromolecular constituent or constituents present in the highest proportion, i.e. the constituent on which the composition is based. If the composition is based on two or more constituents, present in equal proportions, the composition is classified according to each of these constituents.
Example: a coating composition containing 80 parts of polyethene and 20 parts of polyvinylchloride is classified in group C09D 123/06.
A coating composition containing 40 parts of polyethene and 40 parts of polyvinylchloride is classified in groups C09D 123/06 and C09D 127/06.

Subclass index

1/00 **Coating compositions, e.g. paints, varnishes or lacquers, based on inorganic substances** (C04B takes precedence; glazes or vitreous enamels C03C)
1/02 • alkali metal silicates
1/04 • • with organic additives
1/06 • cement
1/08 • • with organic additives
1/10 • lime
1/12 • • with organic additives

4/00 **Coating compositions, e.g. paints, varnishes or lacquers, based on organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond [5]**
4/02 • Acrylmonomers **[5]**
4/04 • • Cyanoacrylate monomers **[5]**
4/06 • in combination with a macromolecular compound other than an unsaturated polymer of groups C09D 159/00-C09D 187/00 **[5]**

5/00 **Coating compositions, e.g. paints, varnishes or lacquers, characterised by their physical nature or the effects produced; Filling pastes [5]**
5/02 • Emulsion paints
5/03 • Powdery paints (C09D 5/46 takes precedence) **[4]**
5/04 • Thixotropic paints
5/06 • Artists' paints
5/08 • Anti-corrosive paints
5/10 • • containing metal dust
5/12 • • Wash primers
5/14 • Paints containing biocides, e.g. fungicides, insecticides or pesticides (C09D 5/16 takes precedence) **[6]**
5/16 • Anti-fouling paints; Underwater paints **[6]**
5/18 • Fireproof paints
5/20 • for coatings strippable as coherent films, e.g. temporary coatings strippable as coherent films
5/22 • Luminous paints
5/23 • Magnetisable or magnetic paints or lacquers **[2]**
5/24 • Electrically-conducting paints
5/25 • Electrically-insulating paints or lacquers **[2]**
5/26 • Thermosensitive paints
5/28 • for wrinkle, crackle, orange-peel, or similar decorative effects
5/29 • for multicolour effects **[2]**
5/30 • Camouflage paints
5/32 • Radiation-absorbing paints
5/33 • Radiation-reflecting paints (C09D 5/30 takes precedence) **[4]**

5/34 • Filling pastes (materials for sealing or packing joints or covers C09K 3/10; materials for stopping leaks C09K 3/12)
5/36 • Pearl essence, e.g. coatings containing platelet-like pigments for pearl lustre
5/38 • Paints containing free metal not provided for in groups C09D 5/00-C09D 5/36 **[2]**
5/44 • for electrophoretic applications (C09D 5/46 takes precedence; processes for coating by electrophoresis C25D 13/00) **[4]**
5/46 • for flame-spraying; for electrostatic or whirl-sintering coating **[4]**

7/00 Features of coating compositions, not provided for in group C09D 5/00 (driers C09F 9/00)
7/02 • Use of compounds as anti-settling agents
7/04 • Use of compounds as anti-skinning agents
7/06 • Use of compounds as levelling agents
7/12 • Other additives
7/14 • Special processes for incorporating ingredients

9/00 Chemical paint or ink removers (fluid media for correction of typographical errors by coating C09D 10/00) **[4]**
9/02 • with abrasives
9/04 • with surface-active agents

10/00 Correcting fluids, e.g. fluid media for correction of typographical errors by coating [5]

11/00 Inks [1, 2014.01]
*11/02 • Printing inks (C09D 11/30 takes precedence) **[1, 2014.01]***
*11/023 • • Emulsion inks **[2014.01]***
*11/0235 • • • Duplicating inks, e.g. for stencil printing **[2014.01]***
*11/03 • • characterised by features other than the chemical nature of the binder **[2014.01]***
*11/033 • • • characterised by the solvent **[2014.01]***
*11/037 • • • characterised by the pigment **[2014.01]***
11/04 • • based on proteins
11/06 • • based on fatty oils
11/08 • • based on natural resins
*11/10 • • based on artificial resins **[1, 2014.01]***
*11/101 • • • Inks specially adapted for printing processes involving curing by wave energy or particle radiation, e.g. with UV-curing following the printing **[2014.01]***
*11/102 • • • containing macromolecular compounds obtained by reactions other than those only involving unsaturated carbon-to-carbon bonds **[2014.01]***
*11/103 • • • • of aldehydes, e.g. phenol-formaldehyde resins **[2014.01]***
*11/104 • • • • Polyesters **[2014.01]***
*11/105 • • • • • Alkyd resins **[2014.01]***
*11/106 • • • containing macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds **[2014.01]***
*11/107 • • • • from unsaturated acids or derivatives thereof **[2014.01]***
*11/108 • • • • Hydrocarbon resins **[2014.01]***
11/12 • • based on waxes or bitumen
11/14 • • based on carbohydrates
*11/16 • Writing inks **[1, 2014.01]***
*11/17 • • characterised by colouring agents **[2014.01]***
11/18 • • for use in ball-point writing instruments
11/20 • • indelible
*11/30 • Inkjet printing inks **[2014.01]***
*11/32 • • characterised by colouring agents **[2014.01]***
*11/322 • • • Pigment inks **[2014.01]***
*11/324 • • • • containing carbon black **[2014.01]***
*11/326 • • • • characterised by the pigment dispersant **[2014.01]***
*11/328 • • • characterised by dyes **[2014.01]***
*11/34 • • Hot-melt inks **[2014.01]***
*11/36 • • based on non-aqueous solvents **[2014.01]***
*11/38 • • characterised by non-macromolecular additives other than solvents, pigments or dyes **[2014.01]***
*11/40 • • Ink-sets specially adapted for multi-colour inkjet printing **[2014.01]***
*11/50 • Sympathetic, colour-changing or similar inks **[2014.01]***
*11/52 • Electrically conductive inks **[2014.01]***
*11/54 • Inks based on two liquids, one liquid being the ink, the other liquid being a reaction solution, a fixer or a treatment solution for the ink **[2014.01]***

13/00 Pencil-leads; Crayon compositions; Chalk compositions

15/00 Woodstains [2]

17/00 Pigment pastes, e.g. for mixing in paints [2]

Coating compositions based on polysaccharides or on their derivatives [5]

Note(s) [2006.01]

1. In groups C09D 101/00-C09D 201/00, any macromolecular constituent of a coating composition which is not identified by the classification according to Note (3) after the title of subclass C09D, and the use of which is determined to be novel and non-obvious, must also be classified in a group chosen from groups C09D 101/00-C09D 201/00.
2. Any macromolecular constituent of a coating composition which is not identified by the classification according to Note (3) after the title of subclass C09D or Note (1) above, and which is considered to represent information of interest for search, may also be classified in a group chosen from groups C09D 101/00-C09D 201/00. This can for example be the case when it is considered of interest to enable searching of coating compositions using a combination of classification symbols. Such non-obligatory classification should be given as "additional information."

101/00 Coating compositions based on cellulose, modified cellulose, or cellulose derivatives [5]
101/02 • Cellulose; Modified cellulose **[5]**
101/04 • • Oxycellulose; Hydrocellulose **[5]**
101/06 • • Cellulose hydrate **[5]**
101/08 • Cellulose derivatives **[5]**
101/10 • • Esters of organic acids (of both organic acids and inorganic acids C09D 101/20) **[5]**
101/12 • • • Cellulose acetate **[5]**
101/14 • • • Mixed esters, e.g. cellulose acetate-butyrate **[5]**
101/16 • • Esters of inorganic acids (of both organic acids and inorganic acids C09D 101/20) **[5]**
101/18 • • • Cellulose nitrate **[5]**

101/20 • • Esters of both organic acids and inorganic acids **[5]**
101/22 • • Cellulose xanthate **[5]**
101/24 • • • Viscose **[5]**
101/26 • • Cellulose ethers **[5]**
101/28 • • • Alkyl ethers **[5]**
101/30 • • • Aryl ethers; Aralkyl ethers **[5]**
101/32 • • Cellulose ether-esters **[5]**

103/00 Coating compositions based on starch, amylose or amylopectin or on their derivatives or degradation products [5]
103/02 • Starch; Degradation products thereof, e.g. dextrin **[5]**
103/04 • Starch derivatives **[5]**
103/06 • • Esters **[5]**
103/08 • • Ethers **[5]**
103/10 • • Oxidised starch **[5]**
103/12 • Amylose; Amylopectin; Degradation products thereof **[5]**
103/14 • Amylose derivatives; Amylopectin derivatives **[5]**
103/16 • • Esters **[5]**
103/18 • • Ethers **[5]**
103/20 • • Oxidised amylose; Oxidised amylopectin **[5]**

105/00 Coating compositions based on polysaccharides or on their derivatives, not provided for in groups C09D 101/00 or C09D 103/00 [5]
105/02 • Dextran; Derivatives thereof **[5]**
105/04 • Alginic acid; Derivatives thereof **[5]**
105/06 • Pectin; Derivatives thereof **[5]**
105/08 • Chitin; Chondroitin sulfate; Hyaluronic acid; Derivatives thereof **[5]**
105/10 • Heparin; Derivatives thereof **[5]**
105/12 • Agar-agar; Derivatives thereof **[5]**
105/14 • Hemicellulose; Derivatives thereof **[5]**
105/16 • Cyclodextrin; Derivatives thereof **[5]**

Coating compositions based on rubbers or on their derivatives [5]

107/00 Coating composition based on natural rubber [5]
107/02 • Latex **[5]**

109/00 Coating compositions based on homopolymers or copolymers of conjugated diene hydrocarbons [5]
109/02 • Copolymers with acrylonitrile **[5]**
109/04 • • Latex **[5]**
109/06 • Copolymers with styrene **[5]**
109/08 • • Latex **[5]**
109/10 • Latex (C09D 109/04, C09D 109/08 take precedence) **[5]**

111/00 Coating compositions based on homopolymers or copolymers of chloroprene [5]
111/02 • Latex **[5]**

113/00 Coating compositions based on rubbers containing carboxyl groups [5]
113/02 • Latex **[5]**

115/00 Coating compositions based on rubber derivatives (C09D 111/00, C09D 113/00 take precedence) **[5]**
115/02 • Rubber derivatives containing halogen **[5]**

117/00 Coating compositions based on reclaimed rubber [5]

119/00 Coating compositions based on rubbers, not provided for in groups C09D 107/00-C09D 117/00 [5]
119/02 • Latex **[5]**

121/00 Coating compositions based on unspecified rubbers [5]
121/02 • Latex **[5]**

Coating compositions based on organic macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds [5]

Note(s)

1. In groups C09D 123/00-C09D 149/00, "aliphatic radical" means an acyclic or a non-aromatic carbocyclic carbon skeleton which is considered to be terminated by every bond to:
   a. an element other than carbon;
   b. a carbon atom having a double bond to one atom other than carbon;
   c. an aromatic carbocyclic ring or a heterocyclic ring.
2. In groups C09D 123/00-C09D 149/00, in the absence of an indication to the contrary, a copolymer is classified according to the major monomeric component.

123/00 Coating compositions based on homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Coating compositions based on derivatives of such polymers [5]
123/02 • not modified by chemical after-treatment **[5]**
123/04 • • Homopolymers or copolymers of ethene **[5]**
123/06 • • • Polyethene **[5]**
123/08 • • • Copolymers of ethene (C09D 123/16 takes precedence) **[5]**
123/10 • • Homopolymers or copolymers of propene **[5]**
123/12 • • • Polypropene **[5]**
123/14 • • • Copolymers of propene (C09D 123/16 takes precedence) **[5]**
123/16 • • Ethene-propene or ethene-propene-diene copolymers **[5]**
123/18 • • Homopolymers or copolymers of hydrocarbons having four or more carbon atoms **[5]**
123/20 • • • having four to nine carbon atoms **[5]**
123/22 • • • • Copolymers of isobutene; Butyl rubber **[5]**
123/24 • • • having ten or more carbon atoms **[5]**
123/26 • modified by chemical after-treatment **[5]**
123/28 • • by reaction with halogens or halogen-containing compounds (C09D 123/32 takes precedence) **[5]**
123/30 • • by oxidation **[5]**
123/32 • • by reaction with phosphorus- or sulfur- containing compounds **[5]**
123/34 • • • by chlorosulfonation **[5]**
123/36 • • by reaction with nitrogen-containing compounds, e.g. by nitration **[5]**

125/00 Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring; Coating compositions based on derivatives of such polymers [5]
125/02 • Homopolymers or copolymers of hydrocarbons **[5]**
125/04 • • Homopolymers or copolymers of styrene **[5]**

125/06 • • • Polystyrene **[5]**
125/08 • • • Copolymers of styrene (C09D 129/08, C09D 135/06, C09D 155/02 take precedence) **[5]**
125/10 • • • • with conjugated dienes **[5]**
125/12 • • • • with unsaturated nitriles **[5]**
125/14 • • • • with unsaturated esters **[5]**
125/16 • • Homopolymers or copolymers of alkyl-substituted styrenes **[5]**
125/18 • Homopolymers or copolymers of aromatic monomers containing elements other than carbon and hydrogen **[5]**

127/00 Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a halogen; Coating compositions based on derivatives of such polymers [5]
127/02 • not modified by chemical after-treatment **[5]**
127/04 • • containing chlorine atoms **[5]**
127/06 • • • Homopolymers or copolymers of vinyl chloride **[5]**
127/08 • • • Homopolymers or copolymers of vinylidene chloride **[5]**
127/10 • • containing bromine or iodine atoms **[5]**
127/12 • • containing fluorine atoms **[5]**
127/14 • • • Homopolymers or copolymers of vinyl fluoride **[5]**
127/16 • • • Homopolymers or copolymers of vinylidene fluoride **[5]**
127/18 • • • Homopolymers or copolymers of tetrafluoroethene **[5]**
127/20 • • • Homopolymers or copolymers of hexafluoropropene **[5]**
127/22 • modified by chemical after-treatment **[5]**
127/24 • • halogenated **[5]**

129/00 Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal, or ketal radical; Coating compositions based on hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids; Coating compositions based on derivatives of such polymers [5]
129/02 • Homopolymers or copolymers of unsaturated alcohols (C09D 129/14 takes precedence) **[5]**
129/04 • • Polyvinyl alcohol; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids **[5]**
129/06 • • Copolymers of allyl alcohol **[5]**
129/08 • • • with vinyl aromatic monomers **[5]**
129/10 • Homopolymers or copolymers of unsaturated ethers (C09D 135/08 takes precedence) **[5]**
129/12 • Homopolymers or copolymers of unsaturated ketones **[5]**
129/14 • Homopolymers or copolymers of acetals or ketals obtained by polymerisation of unsaturated acetals or ketals or by after-treatment of polymers of unsaturated alcohols **[5]**

131/00 Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid, or of a haloformic acid (based on hydrolysed polymers C09D 129/00)**; Coating compositions based on derivatives of such polymers [5]**
131/02 • Homopolymers or copolymers of esters of monocarboxylic acids **[5]**
131/04 • • Homopolymers or copolymers of vinyl acetate **[5]**
131/06 • Homopolymers or copolymers of esters of polycarboxylic acids **[5]**
131/08 • • of phthalic acid **[5]**

133/00 Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by only one carboxyl radical, or of salts, anhydrides, esters, amides, imides, or nitriles thereof; Coating compositions based on derivatives of such polymers [5]
133/02 • Homopolymers or copolymers of acids; Metal or ammonium salts thereof **[5]**
133/04 • Homopolymers or copolymers of esters **[5]**
133/06 • • of esters containing only carbon, hydrogen and oxygen, the oxygen atom being present only as part of the carboxyl radical **[5]**
133/08 • • • Homopolymers or copolymers of acrylic acid esters **[5]**
133/10 • • • Homopolymers or copolymers of methacrylic acid esters **[5]**
133/12 • • • • Homopolymers or copolymers of methyl methacrylate **[5]**
133/14 • • of esters containing halogen, nitrogen, sulfur or oxygen atoms in addition to the carboxy oxygen **[5]**
133/16 • • • Homopolymers or copolymers of esters containing halogen atoms **[5]**
133/18 • Homopolymers or copolymers of nitriles **[5]**
133/20 • • Homopolymers or copolymers of acrylonitrile (C09D 155/02 takes precedence) **[5]**
133/22 • • Homopolymers or copolymers of nitriles containing four or more carbon atoms **[5]**
133/24 • Homopolymers or copolymers of amides or imides **[5]**
133/26 • • Homopolymers or copolymers of acrylamide or methacrylamide **[5]**

135/00 Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical, and containing at least another carboxyl radical in the molecule, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Coating compositions based on derivatives of such polymers [5]
135/02 • Homopolymers or copolymers of esters (C09D 135/06, C09D 135/08 take precedence) **[5]**
135/04 • Homopolymers or copolymers of nitriles (C09D 135/06, C09D 135/08 take precedence) **[5]**
135/06 • Copolymers with vinyl aromatic monomers **[5]**
135/08 • Copolymers with vinyl ethers **[5]**

137/00 **Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a heterocyclic ring containing oxygen** (based on polymers of cyclic esters of polyfunctional acids C09D 131/00; based on polymers of cyclic anhydrides of unsaturated acids C09D 135/00)**; Coating compositions based on derivatives of such polymers [5]**

139/00 **Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen; Coating compositions based on derivatives of such polymers [5]**

139/02 • Homopolymers or copolymers of vinylamine **[5]**

139/04 • Homopolymers or copolymers of monomers containing heterocyclic rings having nitrogen as ring member **[5]**

139/06 • • Homopolymers or copolymers of N-vinyl-pyrrolidones **[5]**

139/08 • • Homopolymers or copolymers of vinyl-pyridine **[5]**

141/00 **Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a bond to sulfur or by a heterocyclic ring containing sulfur; Coating compositions based on derivatives of such polymers [5]**

143/00 **Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and containing boron, silicon, phosphorus, selenium, tellurium or a metal; Coating compositions based on derivatives of such polymers [5]**

143/02 • Homopolymers or copolymers of monomers containing phosphorus **[5]**

143/04 • Homopolymers or copolymers of monomers containing silicon **[5]**

145/00 **Coating compositions based on homopolymers or copolymers of compounds having no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic or in a heterocyclic ring system; Coating compositions based on derivatives of such polymers** (based on polymers of cyclic esters of polyfunctional acids C09D 131/00; based on polymers of cyclic anhydrides or imides C09D 135/00) **[5]**

145/02 • Coumarone-indene polymers **[5]**

147/00 **Coating compositions based on homolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds; Coating compositions based on derivatives of such polymers** (C09D 145/00 takes precedence; based on conjugated diene rubbers C09D 109/00-C09D 121/00) **[5]**

149/00 **Coating compositions based on homopolymers or copolymers of compounds having one or more carbon-to-carbon triple bonds; Coating compositions based on derivatives of such polymers [5]**

151/00 **Coating compositions based on graft polymers in which the grafted component is obtained by reactions only involving carbon-to-carbon unsaturated bonds** (based on ABS polymers C09D 155/02)**; Coating compositions based on derivatives of such polymers [5]**

151/02 • grafted on to polysaccharides **[5]**

151/04 • grafted on to rubbers **[5]**

151/06 • grafted on to homopolymers or copolymers of aliphatic hydrocarbons containing only one carbon-to-carbon double bond **[5]**

151/08 • grafted on to macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds **[5]**

151/10 • grafted on to inorganic materials **[5]**

153/00 **Coating compositions based on block copolymers containing at least one sequence of a polymer obtained by reactions only involving carbon-to-carbon unsaturated bonds; Coating compositions based on derivatives of such polymers [5]**

153/02 • Vinyl aromatic monomers and conjugated dienes **[5]**

155/00 **Coating composition based on homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C09D 123/00-C09D 153/00 [5]**

155/02 • ABS [Acrylonitrile-Butadiene-Styrene] polymers **[5]**

155/04 • Polyadducts obtained by the diene synthesis **[5]**

157/00 **Coating compositions based on unspecified polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds [5]**

157/02 • Copolymers of mineral oil hydrocarbons **[5]**

157/04 • Copolymers in which only the monomer in minority is defined **[5]**

157/06 • Homopolymers or copolymers containing elements other than carbon and hydrogen **[5]**

157/08 • • containing halogen atoms **[5]**

157/10 • • containing oxygen atoms **[5]**

157/12 • • containing nitrogen atoms **[5]**

Coating compositions based on organic macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds [5]

159/00 **Coating compositions based on polyacetals; Coating compositions based on derivatives of polyacetals [5]**

159/02 • Polyacetals containing polyoxymethylene sequence only **[5]**

159/04 • Copolyoxymethylenes **[5]**

161/00 **Coating compositions based on condensation polymers of aldehydes or ketones** (with polyalcohols C09D 159/00; with polynitriles C09D 177/00)**; Coating compositions based on derivatives of such polymers [5]**

161/02 • Condensation polymers of aldehydes or ketones only **[5]**

161/04 • Condensation polymers of aldehydes or ketones with phenols only **[5]**

161/06 • • of aldehydes with phenols **[5]**

161/08 • • • with monohydric phenols **[5]**
161/10 • • • • Phenol-formaldehyde condensates **[5]**
161/12 • • • with polyhydric phenols **[5]**
161/14 • • • Modified phenol-aldehyde condensates **[5]**
161/16 • • of ketones with phenols **[5]**
161/18 • Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only **[5]**
161/20 • Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with amino phenols C09D 161/04) **[5]**
161/22 • • of aldehydes with acyclic or carbocyclic compounds **[5]**
161/24 • • • with urea or thiourea **[5]**
161/26 • • of aldehydes with heterocyclic compounds **[5]**
161/28 • • • with melamine **[5]**
161/30 • • of aldehydes with heterocyclic and acyclic or carbocyclic compounds **[5]**
161/32 • • Modified amine-aldehyde condensates **[5]**
161/34 • Condensation polymers of aldehydes or ketones with monomers covered by at least two of the groups C09D 161/04, C09D 161/18 and C09D 161/20 **[5]**

163/00 Coating compositions based on epoxy resins; Coating compositions based on derivatives of epoxy resins [5]

163/02 • Polyglycidyl ethers of bis-phenols **[5]**
163/04 • Epoxynovolacs **[5]**
163/06 • Triglycidylisocyanurates **[5]**
163/08 • Epoxidised polymerised polyenes **[5]**
163/10 • Epoxy resins modified by unsaturated compounds **[5]**

Note(s)

In groups C09D 165/00-C09D 185/00, in the absence of an indication to the contrary, coating compositions based on macromolecular compounds obtained by reactions forming two different linkages in the main chain are classified only according to the linkage present in excess.

165/00 Coating compositions based on macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain (C09D 107/00-C09D 157/00, C09D 161/00 take precedence)**; Coating compositions based on derivatives of such polymers [5]**

165/02 • Polyphenylenes **[5]**
165/04 • Polyxylylenes **[5]**

167/00 Coating compositions based on polyesters obtained by reactions forming a carboxylic ester link in the main chain (based on polyester-amides C09D 177/12; based on polyester-imides C09D 179/08)**; Coating compositions based on derivatives of such polymers [5]**

167/02 • Polyesters derived from dicarboxylic acids and dihydroxy compounds (C09D 167/06 takes precedence) **[5]**
167/03 • • the dicarboxylic acids and dihydroxy compounds having the hydroxy and the carboxyl groups directly linked to aromatic rings **[5]**
167/04 • Polyesters derived from hydroxy carboxylic acids, e.g. lactones (C09D 167/06 takes precedence) **[5]**
167/06 • Unsaturated polyesters having carbon-to-carbon unsaturation **[5]**
167/07 • • having terminal carbon-to-carbon unsaturated bonds **[5]**
167/08 • Polyesters modified with higher fatty oils or their acids, or with natural resins or resin acids **[5]**

169/00 Coating compositions based on polycarbonates; Coating compositions based on derivatives of polycarbonates [5]

171/00 Coating compositions based on polyethers obtained by reactions forming an ether link in the main chain (based on polyacetals C09D 159/00; based on epoxy resins C09D 163/00; based on polythioether-ethers C09D 181/02; based on polyethersulfones C09D 181/06)**; Coating compositions based on derivatives of such polymers [5]**

171/02 • Polyalkylene oxides **[5]**
171/03 • • Polyepihalohydrins **[5]**
171/08 • Polyethers derived from hydroxy compounds or from their metallic derivatives (C09D 171/02 takes precedence) **[5]**
171/10 • • from phenols **[5]**
171/12 • • • Polyphenylene oxides **[5]**
171/14 • • Furfuryl alcohol polymers **[5]**

173/00 Coating compositions based on macromolecular compounds obtained by reactions forming a linkage containing oxygen or oxygen and carbon in the main chain, not provided for in groups C09D 159/00-C09D 171/00; Coating compositions based on derivatives of such polymers [5]

173/02 • Polyanhydrides **[5]**

175/00 Coating compositions based on polyureas or polyurethanes; Coating compositions based on derivatives of such polymers [5]

175/02 • Polyureas **[5]**
175/04 • Polyurethanes **[5]**
175/06 • • from polyesters **[5]**
175/08 • • from polyethers **[5]**
175/10 • • from polyacetals **[5]**
175/12 • • from compounds containing nitrogen and active hydrogen, the nitrogen atom not being part of an isocyanate group **[5]**
175/14 • • Polyurethanes having carbon-to-carbon unsaturated bonds **[5]**
175/16 • • • having terminal carbon-to-carbon unsaturated bonds **[5]**

177/00 Coating compositions based on polyamides obtained by reactions forming a carboxylic amide link in the main chain (based on polyhydrazides C09D 179/06; based on polyamide-imides C09D 179/08)**; Coating compositions based on derivatives of such polymers [5]**

177/02 • Polyamides derived from omega-amino carboxylic acids or from lactams thereof (C09D 177/10 takes precedence) **[5]**
177/04 • Polyamides derived from alpha-amino carboxylic acids (C09D 177/10 takes precedence) **[5]**
177/06 • Polyamides derived from polyamines and polycarboxylic acids (C09D 177/10 takes precedence) **[5]**
177/08 • • from polyamines and polymerised unsaturated fatty acids **[5]**
177/10 • Polyamides derived from aromatically bound amino and carboxyl groups of amino carboxylic acids or of polyamines and polycarboxylic acids **[5]**
177/12 • Polyester-amides **[5]**

179/00 **Coating compositions based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing nitrogen, with or without oxygen, or carbon only, not provided for in groups C09D 161/00-C09D 177/00 [5]**

179/02 • Polyamines **[5]**

179/04 • Polycondensates having nitrogen-containing heterocyclic rings in the main chain; Polyhydrazides; Polyamide acids or similar polyimide precursors **[5]**

179/06 • • Polyhydrazides; Polytriazoles; Polyamino-triazoles; Polyoxadiazoles **[5]**

179/08 • • Polyimides; Polyester-imides; Polyamide-imides; Polyamide acids or similar polyimide precursors **[5]**

181/00 **Coating compositions based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing sulfur, with or without nitrogen, oxygen, or carbon only; Coating compositions based on polysulfones; Coating compositions based on derivatives of such polymers [5]**

181/02 • Polythioethers; Polythioether-ethers **[5]**

181/04 • Polysulfides **[5]**

181/06 • Polysulfones; Polyethersulfones **[5]**

181/08 • Polysulfonates **[5]**

181/10 • Polysulfonamides; Polysulfonimides **[5]**

183/00 **Coating compositions based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing silicon, with or without sulfur, nitrogen, oxygen, or carbon only; Coating compositions based on derivatives of such polymers [5]**

183/02 • Polysilicates **[5]**

183/04 • Polysiloxanes **[5]**

183/05 • • containing silicon bound to hydrogen **[5]**

183/06 • • containing silicon bound to oxygen-containing groups (C09D 183/12 takes precedence) **[5]**

183/07 • • containing silicon bound to unsaturated aliphatic groups **[5]**

183/08 • • containing silicon bound to organic groups containing atoms other than carbon, hydrogen, and oxygen **[5]**

183/10 • Block or graft copolymers containing polysiloxane sequences (obtained by polymerising a compound having a carbon-to-carbon double bond on to a polysiloxane C09D 151/08, C09D 153/00) **[5]**

183/12 • • containing polyether sequences **[5]**

183/14 • in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms (C09D 183/10 takes precedence) **[5]**

183/16 • in which all the silicon atoms are connected by linkages other than oxygen atoms **[5]**

185/00 **Coating compositions based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing atoms other than silicon, sulfur, nitrogen, oxygen, and carbon; Coating compositions based on derivatives of such polymers [5]**

185/02 • containing phosphorus **[5]**

185/04 • containing boron **[5]**

187/00 **Coating compositions based on unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon bonds [5]**

Coating compositions based on natural macromolecular compounds or on derivatives thereof [5]

189/00 **Coating compositions based on proteins; Coating compositions based on derivatives thereof [5]**

189/02 • Casein-aldehyde condensates **[5]**

189/04 • Products derived from waste materials, e.g. horn, hoof or hair **[5]**

189/06 • • derived from leather or skin **[5]**

191/00 **Coating compositions based on oils, fats or waxes; Coating compositions based on derivatives thereof** (polishing compositions, ski waxes C09G) **[5]**

191/02 • Vulcanised oils, e.g. factice **[5]**

191/04 • Linoxyn **[5]**

191/06 • Waxes **[5]**

191/08 • • Mineral waxes **[5]**

193/00 **Coating compositions based on natural resins; Coating compositions based on derivatives thereof** (based on polysaccharides C09D 101/00-C09D 105/00; based on natural rubber C09D 107/00; polishing compositions C09G) **[5]**

193/02 • Shellac **[5]**

193/04 • Rosin **[5]**

195/00 **Coating compositions based on bituminous materials, e.g. asphalt, tar or pitch [5]**

197/00 **Coating compositions based on lignin-containing materials** (based on polysaccharides C09D 101/00-C09D 105/00) **[5]**

197/02 • Lignocellulosic material, e.g. wood, straw or bagasse **[5]**

199/00 **Coating compositions based on natural macromolecular compounds or on derivatives thereof, not provided for in groups C09D 101/00-C09D 107/00 or C09D 189/00-C09D 197/00 [5]**

201/00 **Coating compositions based on unspecified macromolecular compounds [5]**

201/02 • characterised by the presence of specified groups **[5]**

201/04 • • containing halogen atoms **[5]**

201/06 • • containing oxygen atoms **[5]**

201/08 • • • Carboxyl groups **[5]**

201/10 • • containing hydrolysable silane groups **[5]**

C09F **NATURAL RESINS; FRENCH POLISH; DRYING-OILS; DRIERS (SICCATIVES); TURPENTINE**

1/00 **Obtaining, purification, or chemical modification of natural resins, e.g. oleo-resins**

1/02 • Purification
1/04 • Chemical modification, e.g. esterification

3/00 Obtaining spirits of turpentine
3/02 • as a by-product in the paper-pulping process

5/00 Obtaining drying-oils
5/02 • from natural sources
5/04 • • from cashew nuts
5/06 • by dehydration of hydroxylated fatty acids or oils
5/08 • by esterification of fatty acids
5/10 • Refining
5/12 • • by distillation

7/00 Chemical modification of drying-oils (factice C08H)
7/02 • by oxidising
7/04 • by voltolising
7/06 • by polymerisation
7/08 • by isomerisation
7/10 • by re-esterification
7/12 • Apparatus therefor

9/00 Compounds to be used as driers (siccatives)

11/00 Preparation of French polish

C09F

C09G POLISHING COMPOSITIONS OTHER THAN FRENCH POLISH; SKI WAXES

1/00 **Polishing compositions** (French polish C09F 11/00; detergents C11D)
1/02 • containing abrasives or grinding agents
1/04 • Aqueous dispersions (C09G 1/02 takes precedence)
1/06 • Other polishing compositions
1/08 • • based on wax
1/10 • • • based on mixtures of wax and natural or synthetic resin
1/12 • • • • mixtures of wax and silicon-containing polycondensates
1/14 • • based on non-waxy substances
1/16 • • • on natural or synthetic resins
1/18 • • • on other substances

3/00 **Ski waxes**

C09H PREPARATION OF GLUE OR GELATINE

1/00 **Pretreatment of collagen-containing raw materials for the manufacture of glue**
1/02 • of bones (defatting bones C11B)
1/04 • of hides, hoofs, or leather scrap (recovery of tanning agents C14C)

3/00 **Isolation of glue or gelatine from raw materials, e.g. by extracting, by heating** (gelatine for foodstuffs A23J 1/10)
3/02 • Purification of solutions of gelatine

5/00 **Stabilisation of solutions of glue or gelatine**

7/00 **Preparation of water-insoluble gelatine**

9/00 **Drying of glue or gelatine**
9/02 • in the form of foils
9/04 • in the form of granules, e.g. beads

C09J ADHESIVES; NON-MECHANICAL ASPECTS OF ADHESIVE PROCESSES IN GENERAL; ADHESIVE PROCESSES NOT PROVIDED FOR ELSEWHERE; USE OF MATERIALS AS ADHESIVES (surgical adhesives A61L 24/00; adhesives on the basis of non specified organic macromolecular compounds used as bonding agents in layered products B32B; labelling fabrics or comparable materials or articles with deformable surface using adhesives and thermo-activatable adhesives respectively B65C 5/02, B65C 5/04; preparation of glue or gelatine C09H; adhesive labels, tag tickets or similar identification of indication means G09F 3/10) **[5]**

Note(s)

1. In this subclass, the following terms or expressions are used with the meanings indicated:
   - "use of materials as adhesives" means the use of known or new polymers or products;
   - "rubber" includes:
     a. natural or conjugated diene rubbers;
     b. rubber in general (for a specific rubber, other than a natural rubber or a conjugated diene rubber, see the group provided for adhesives based on such macromolecular compounds);
   - "based on" is defined by means of Note (3), below.
2. In this subclass, adhesives containing specific organic macromolecular substances are classified only according to the macromolecular substance, non-macromolecular substances not being taken into account.
   Example: an adhesive containing polyethene and amino-propyltrimethoxysilane is classified in group C09J 123/06.
   However, adhesives containing combinations of organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond with prepolymers or polymers other than unsaturated polymers of groups C09J 159/00-C09J 187/00 are classified according to the unsaturated non-macromolecular component in group C09J 4/00.
   Example: an adhesive containing polyethene and styrene monomer is classified in group C09J 4/00.
   Aspects relating to the physical nature of the adhesives or to the effects produced, as defined in group C09J 9/00, if clearly and explicitly stated, are also classified in this subclass.
   Adhesives characterised by other features, e.g. additives, are classified in group C09J 11/00, unless the macromolecular constituent is specified.
3. In this subclass, adhesives comprising two or more macromolecular constituents are classified according to the macromolecular constituent or constituents present in the highest proportion, i.e. the constituent on which the adhesive is based. If the adhesive is based on two or more constituents, present in equal proportions, the adhesive is classified according to each of these constituents.
   Example: an adhesive containing 80 parts of polyethene and 20 parts of polyvinylchloride is classified in group C09J 123/06. An adhesive containing 40 parts of polyethene and 40 parts of polyvinylchloride is classified in groups C09J 123/06 and C09J 127/06.

Subclass index

1/00 Adhesives based on inorganic constituents

1/02 • containing water-soluble alkali silicates

4/00 Adhesives based on organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond [5]

4/02 • Acrylmonomers **[5]**

4/04 • • Cyanoacrylate monomers **[5]**

4/06 • in combination with a macromolecular compound other than an unsaturated polymer of groups C09J 159/00-C09J 187/00 **[5]**

5/00 Adhesive processes in general; Adhesive processes not provided for elsewhere, e.g. relating to primers

5/02 • involving pretreatment of the surfaces to be joined

5/04 • involving separate application of adhesive ingredients to the different surfaces to be joined

5/06 • involving heating of the applied adhesive

5/08 • using foamed adhesives

5/10 • Joining materials by welding overlapping edges with an insertion of plastic material

7/00 Adhesives in the form of films or foils

7/02 • on carriers

7/04 • • on paper or textile fabric (adhesive bandages, dressings or absorbent pads A61L 15/16)

9/00 Adhesives characterised by their physical nature or the effects produced, e.g. glue sticks (C09J 7/00 takes precedence) **[5]**

9/02 • Electrically-conducting adhesives (electrically conductive adhesives specially adapted for use in therapy or testing in vivo A61K 50/00) **[5]**

11/00 Features of adhesives not provided for in group C09J 9/00, e.g. additives [5]

11/02 • Non-macromolecular additives **[5]**

11/04 • • inorganic **[5]**

11/06 • • organic **[5]**

11/08 • Macromolecular additives **[5]**

Adhesives based on polysaccharides or on their derivatives [5]

Note(s)

1. In groups C09J 101/00-C09J 201/00, any macromolecular constituent of an adhesive composition which is not identified by the classification according to Note (3) after the title of subclass C09J, and the use of which is determined to be novel and non-obvious, must also be classified in a group chosen from groups C09J 101/00-C09J 201/00.

2. Any macromolecular constituent of an adhesive composition which is not identified by the classification according to Note (3) after the title of subclass C09J or Note (1) above, and which is considered to represent information of interest for search, may also be classified in a group chosen from groups C09J 101/00-C09J 201/00. This can, for example, be the case when it is considered of interest to enable searching of adhesive compositions using a combination of classification symbols. Such non-obligatory classification should be given as "additional information".

101/00 Adhesives based on cellulose, modified cellulose, or cellulose derivatives [5]

101/02 • Cellulose; Modified cellulose **[5]**

101/04 • • Oxycellulose; Hydrocellulose **[5]**

101/06 • • Cellulose hydrate **[5]**

101/08 • Cellulose derivatives **[5]**

101/10 • • Esters of organic acids (of both organic acids and inorganic acids C09J 101/20) **[5]**

101/12 • • • Cellulose acetate **[5]**

101/14 • • • Mixed esters, e.g. cellulose acetate-butyrate **[5]**

101/16 • • Esters of inorganic acids (of both organic acids and inorganic acids C09J 101/20) **[5]**

101/18 • • • Cellulose nitrate **[5]**

101/20 • • Esters of both organic acids and inorganic acids **[5]**

101/22 • • Cellulose xanthate **[5]**

101/24 • • • Viscose **[5]**

101/26 • • Cellulose ethers **[5]**

101/28 • • • Alkyl ethers **[5]**

101/30 • • • Aryl ethers; Aralkyl ethers **[5]**

101/32 • • Cellulose ether-esters **[5]**

103/00 Adhesives based on starch, amylose or amylopectin or on their derivatives or degradation products [5]

103/02 • Starch; Degradation products thereof, e.g. dextrin **[5]**

103/04 • Starch derivatives **[5]**

103/06 • • Esters **[5]**

103/08 • • Ethers **[5]**

103/10 • • Oxidised starch **[5]**

103/12 • Amylose; Amylopectin; Degradation products thereof **[5]**

103/14 • Amylose derivatives; Amylopectin derivatives **[5]**

103/16 • • Esters **[5]**

103/18 • • Ethers **[5]**

103/20 • • Oxidised amylose; Oxidised amylopectin **[5]**

105/00 Adhesives based on polysaccharides or on their derivatives, not provided for in groups C09J 101/00 or C09J 103/00 [5]

105/02 • Dextran; Derivatives thereof **[5]**

105/04 • Alginic acid; Derivatives thereof **[5]**

105/06 • Pectin; Derivatives thereof **[5]**

105/08 • Chitin; Chondroitin sulfate; Hyaluronic acid; Derivatives thereof **[5]**

105/10 • Heparin; Derivatives thereof **[5]**

105/12 • Agar-agar; Derivatives thereof **[5]**
105/14 • Hemicellulose; Derivatives thereof **[5]**
105/16 • Cyclodextrin; Derivatives thereof **[5]**

Adhesives based on rubbers or on their derivatives [5]

107/00 Adhesives based on natural rubber [5]
107/02 • Latex **[5]**

109/00 Adhesives based on homopolymers or copolymers of conjugated diene hydrocarbons [5]
109/02 • Copolymers with acrylonitrile **[5]**
109/04 • • Latex **[5]**
109/06 • Copolymers with styrene **[5]**
109/08 • • Latex **[5]**
109/10 • Latex (C09J 109/04, C09J 109/08 take precedence) **[5]**

111/00 Adhesives based on homopolymers or copolymers of chloroprene [5]
111/02 • Latex **[5]**

113/00 Adhesives based on rubbers containing carboxyl groups [5]
113/02 • Latex **[5]**

115/00 Adhesives based on rubber derivatives (C09J 111/00, C09J 113/00 take precedence) **[5]**
115/02 • Rubber derivatives containing halogen **[5]**

117/00 Adhesives based on reclaimed rubber [5]

119/00 Adhesives based on rubbers, not provided for in groups C09J 107/00-C09J 117/00 [5]
119/02 • Latex **[5]**

121/00 Adhesives based on unspecified rubbers [5]
121/02 • Latex **[5]**

Adhesives based on organic macromolecular compounds obtained by reactions only involving carbon-to-carbon unsaturated bonds [5]

Note(s) [1, 2006.01]

1. In groups C09J 123/00-C09J 149/00, "aliphatic radical" means an acyclic or a non-aromatic carbocyclic carbon skeleton which is considered to be terminated by every bond to:
   a. an element other than carbon;
   b. a carbon atom having a double bond to one atom other than carbon;
   c. an aromatic carbocyclic ring or a heterocyclic ring.
2. In groups C09J 123/00-C09J 149/00, in the absence of an indication to the contrary, a copolymer is classified according to the major monomeric component.

123/00 Adhesives based on homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Adhesives based on derivatives of such polymers [5]
123/02 • not modified by chemical after-treatment **[5]**
123/04 • • Homopolymers or copolymers of ethene **[5]**
123/06 • • • Polyethene **[5]**
123/08 • • • Copolymers of ethene (C09J 123/16 takes precedence) **[5]**
123/10 • • Homopolymers or copolymers of propene **[5]**
123/12 • • • Polypropene **[5]**
123/14 • • • Copolymers of propene (C09J 123/16 takes precedence) **[5]**
123/16 • • Ethene-propene or ethene-propene-diene copolymers **[5]**
123/18 • • Homopolymers or copolymers of hydrocarbons having four or more carbon atoms **[5]**
123/20 • • • having four to nine carbon atoms **[5]**
123/22 • • • • Copolymers of isobutene; Butyl rubber **[5]**
123/24 • • • having ten or more carbon atoms **[5]**
123/26 • modified by chemical after-treatment **[5]**
123/28 • • by reaction with halogens or halogen-containing compounds (C09J 123/32 takes precedence) **[5]**
123/30 • • by oxidation **[5]**
123/32 • • by reaction with phosphorus- or sulfur-containing compounds **[5]**
123/34 • • • by chlorosulfonation **[5]**
123/36 • • by reaction with nitrogen-containing compounds, e.g. by nitration **[5]**

125/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring; Adhesives based on derivatives of such polymers [5]
125/02 • Homopolymers or copolymers of hydrocarbons **[5]**
125/04 • • Homopolymers or copolymers of styrene **[5]**
125/06 • • • Polystyrene **[5]**
125/08 • • • Copolymers of styrene (C09J 129/08, C09J 135/06, C09J 155/02 take precedence) **[5]**
125/10 • • • • with conjugated dienes **[5]**
125/12 • • • • with unsaturated nitriles **[5]**
125/14 • • • • with unsaturated esters **[5]**
125/16 • • Homopolymers or copolymers of alkyl-substituted styrenes **[5]**
125/18 • Homopolymers or copolymers of aromatic monomers containing elements other than carbon and hydrogen **[5]**

127/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a halogen; Adhesives based on derivatives of such polymers [5]
127/02 • not modified by chemical after-treatment **[5]**
127/04 • • containing chlorine atoms **[5]**
127/06 • • • Homopolymers or copolymers of vinyl chloride **[5]**
127/08 • • • Homopolymers or copolymers of vinylidene chloride **[5]**
127/10 • • containing bromine or iodine atoms **[5]**
127/12 • • containing fluorine atoms **[5]**
127/14 • • • Homopolymers or copolymers of vinyl fluoride **[5]**
127/16 • • • Homopolymers or copolymers of vinylidene fluoride **[5]**
127/18 • • • Homopolymers or copolymers of tetrafluoroethene **[5]**
127/20 • • • Homopolymers or copolymers of hexafluoropropene **[5]**
127/22 • modified by chemical after-treatment **[5]**
127/24 • • halogenated **[5]**

129/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal, or ketal radical; Adhesives based on hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids; Adhesives based on derivatives of such polymers [5]

129/02 • Homopolymers or copolymers of unsaturated alcohols (C09J 129/14 takes precedence) **[5]**

129/04 • • Polyvinyl alcohol; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids **[5]**

129/06 • • Copolymers of allyl alcohol **[5]**

129/08 • • • with vinyl aromatic monomers **[5]**

129/10 • Homopolymers or copolymers of unsaturated ethers (C09J 135/08 takes precedence) **[5]**

129/12 • Homopolymers or copolymers of unsaturated ketones **[5]**

129/14 • Homopolymers or copolymers of acetals or ketals obtained by polymerisation of unsaturated acetals or ketals or by after-treatment of polymers of unsaturated alcohols **[5]**

131/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid, or of a haloformic acid (based on hydrolysed polymers C09J 129/00)**; Adhesives based on derivatives of such polymers [5]**

131/02 • Homopolymers or copolymers of esters of monocarboxylic acids **[5]**

131/04 • • Homopolymers or copolymers of vinyl acetate **[5]**

131/06 • Homopolymers or copolymers of esters of polycarboxylic acids **[5]**

131/08 • • of phthalic acid **[5]**

133/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by only one carboxyl radical, or of salts, anhydrides, esters, amides, imides, or nitriles thereof; Adhesives based on derivatives of such polymers [5]

133/02 • Homopolymers or copolymers of acids; Metal or ammonium salts thereof **[5]**

133/04 • Homopolymers or copolymers of esters **[5]**

133/06 • • of esters containing only carbon, hydrogen and oxygen, the oxygen atom being present only as part of the carboxyl radical **[5]**

133/08 • • • Homopolymers or copolymers of acrylic acid esters **[5]**

133/10 • • • Homopolymers or copolymers of methacrylic acid esters **[5]**

133/12 • • • • Homopolymers or copolymers of methyl methacrylate **[5]**

133/14 • • of esters containing halogen, nitrogen, sulfur or oxygen atoms in addition to the carboxy oxygen **[5]**

133/16 • • • Homopolymers or copolymers of esters containing halogen atoms **[5]**

133/18 • Homopolymers or copolymers of nitriles **[5]**

133/20 • • Homopolymers or copolymers of acrylonitrile (C09J 155/02 takes precedence) **[5]**

133/22 • • Homopolymers or copolymers of nitriles containing four or more carbon atoms **[5]**

133/24 • Homopolymers or copolymers of amides or imides **[5]**

133/26 • • Homopolymers or copolymers of acrylamide or methacrylamide **[5]**

135/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical, and containing at least another carboxyl radical in the molecule, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Adhesives based on derivatives of such polymers [5]

135/02 • Homopolymers or copolymers of esters (C09J 135/06, C09J 135/08 take precedence) **[5]**

135/04 • Homopolymers or copolymers of nitriles (C09J 135/06, C09J 135/08 take precedence) **[5]**

135/06 • Copolymers with vinyl aromatic monomers **[5]**

135/08 • Copolymers with vinyl ethers **[5]**

137/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a heterocyclic ring containing oxygen (based on polymers of cyclic esters of polyfunctional acids C09J 131/00; based on polymers of cyclic anhydrides of unsaturated acids C09J 135/00)**; Adhesives based on derivatives of such polymers [5]**

139/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen; Adhesives based on derivatives of such polymers [5]

139/02 • Homopolymers or copolymers of vinylamine **[5]**

139/04 • Homopolymers or copolymers of monomers containing heterocyclic rings having nitrogen as ring member **[5]**

139/06 • • Homopolymers or copolymers of N-vinyl-pyrrolidones **[5]**

139/08 • • Homopolymers or copolymers of vinyl-pyridine **[5]**

141/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a bond to sulfur or by a heterocyclic ring containing sulfur; Adhesives based on derivatives of such polymers [5]

143/00 Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and containing boron, silicon, phosphorus, selenium, tellurium, or a metal; Adhesives based on derivatives of such polymers [5]

143/02 • Homopolymers or copolymers of monomers containing phosphorus **[5]**

143/04 • Homopolymers or copolymers of monomers containing silicon **[5]**

145/00 **Adhesives based on homopolymers or copolymers of compounds having no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic or in a heterocyclic ring system; Adhesives based on derivatives of such polymers** (based on polymers of cyclic esters of polyfunctional acids C09J 131/00; based on polymers of cyclic anhydrides or imides C09J 135/00) **[5]**

145/02 • Coumarone-indene polymers **[5]**

147/00 **Adhesives based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds; Adhesives based on derivatives of such polymers** (C09J 145/00 takes precedence; based on conjugated diene rubbers C09J 109/00-C09J 121/00) **[5]**

149/00 **Adhesives based on homopolymers or copolymers of compounds having one or more carbon-to-carbon triple bonds; Adhesives based on derivatives of such polymers [5]**

151/00 **Adhesives based on graft polymers in which the grafted component is obtained by reactions only involving carbon-to-carbon unsaturated bonds** (based on ABS polymers C09J 155/02)**; Adhesives based on derivatives of such polymers [5]**

151/02 • grafted on to polysaccharides **[5]**

151/04 • grafted on to rubbers **[5]**

151/06 • grafted on to homopolymers or copolymers of aliphatic hydrocarbons containing only one carbon-to-carbon double bond **[5]**

151/08 • grafted on to macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds **[5]**

151/10 • grafted on to inorganic materials **[5]**

153/00 **Adhesives based on block copolymers containing at least one sequence of a polymer obtained by reactions only involving carbon-to-carbon unsaturated bonds; Adhesives based on derivatives of such polymers [5]**

153/02 • Vinyl aromatic monomers and conjugated dienes **[5]**

155/00 **Adhesives based on homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C09J 123/00-C09J 153/00 [5]**

155/02 • ABS [Acrylonitrile-Butadiene-Styrene] polymers **[5]**

155/04 • Polyadducts obtained by the diene synthesis **[5]**

157/00 **Adhesives based on unspecified polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds [5]**

157/02 • Copolymers of mineral oil hydrocarbons **[5]**

157/04 • Copolymers in which only the monomer in minority is defined **[5]**

157/06 • Homopolymers or copolymers containing elements other than carbon and hydrogen **[5]**

157/08 • • containing halogen atoms **[5]**

157/10 • • containing oxygen atoms **[5]**

157/12 • • containing nitrogen atoms **[5]**

Adhesives based on organic macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds [5]

159/00 **Adhesives based on polyacetals; Adhesives based on derivatives of polyacetals [5]**

159/02 • Polyacetals containing polyoxymethylene sequences only **[5]**

159/04 • Copolyoxymethylenes **[5]**

161/00 **Adhesives based on condensation polymers of aldehydes or ketones** (with polyalcohols C09J 159/00; with polynitriles C09J 177/00)**; Adhesives based on derivatives of such polymers [5]**

161/02 • Condensation polymers of aldehydes or ketones only **[5]**

161/04 • Condensation polymers of aldehydes or ketones with phenols only **[5]**

161/06 • • of aldehydes with phenols **[5]**

161/08 • • • with monohydric phenols **[5]**

161/10 • • • • Phenol-formaldehyde condensates **[5]**

161/12 • • • with polyhydric phenols **[5]**

161/14 • • • Modified phenol-aldehyde condensates **[5]**

161/16 • • of ketones with phenols **[5]**

161/18 • Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only **[5]**

161/20 • Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with amino phenols C09J 161/04) **[5]**

161/22 • • of aldehydes with acyclic or carbocyclic compounds **[5]**

161/24 • • • with urea or thiourea **[5]**

161/26 • • of aldehydes with heterocyclic compounds **[5]**

161/28 • • • with melamine **[5]**

161/30 • • of aldehydes with heterocyclic and acyclic or carbocyclic compounds **[5]**

161/32 • • Modified amine-aldehyde condensates **[5]**

161/34 • Condensation polymers of aldehydes or ketones with monomers covered by at least two of the groups C09J 161/04, C09J 161/18 and C09J 161/20 **[5]**

163/00 **Adhesives based on epoxy resins; Adhesives based on derivatives of epoxy resins [5]**

163/02 • Polyglycidyl ethers of bis-phenols **[5]**

163/04 • Epoxynovolacs **[5]**

163/06 • Triglycidylisocyanurates **[5]**

163/08 • Epoxidised polymerised polyenes **[5]**

163/10 • Epoxy resins modified by unsaturated compounds **[5]**

Note(s)

In groups C09J 165/00-C09J 185/00, in the absence of an indication to the contrary, adhesives based on macromolecular compounds obtained by reactions forming two different linkages in the main chain are classified only according to the linkage present in excess.

165/00 **Adhesives based on macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain** (C09J 107/00-C09J 157/00, C09J 161/00 take precedence)**; Adhesives based on derivatives of such polymers [5]**

165/02 • Polyphenylenes **[5]**

165/04 • Polyxylylenes **[5]**

167/00 Adhesives based on polyesters obtained by reactions forming a carboxylic ester link in the main chain (based on polyester-amides C09J 177/12; based on polyester-imides C09J 179/08)**; Adhesives based on derivatives of such polymers [5]**

167/02 • Polyesters derived from dicarboxylic acids and dihydroxy compounds (C09J 167/06 takes precedence) **[5]**

167/03 • • the dicarboxylic acids and dihydroxy compounds having the hydroxy and the carboxyl groups directly linked to aromatic rings **[5]**

167/04 • Polyesters derived from hydroxy carboxylic acids, e.g. lactones (C09J 167/06 takes precedence) **[5]**

167/06 • Unsaturated polyesters having carbon-to-carbon unsaturation **[5]**

167/07 • • having terminal carbon-to-carbon unsaturated bonds **[5]**

167/08 • Polyesters modified with higher fatty oils or their acids, or with natural resins or resin acids **[5]**

169/00 Adhesives based on polycarbonates; Adhesives based on derivatives of polycarbonates [5]

171/00 Adhesives based on polyethers obtained by reactions forming an ether link in the main chain (based on polyacetals C09J 159/00; based on epoxy resins C09J 163/00; based on polythioether-ethers C09J 181/02; based on polyethersulfones C09J 181/06)**; Adhesives based on derivatives of such polymers [5]**

171/02 • Polyalkylene oxides **[5]**

171/03 • • Polyepihalohydrins **[5]**

171/08 • Polyethers derived from hydroxy compounds or from their metallic derivatives (C09J 171/02 takes precedence) **[5]**

171/10 • • from phenols **[5]**

171/12 • • • Polyphenylene oxides **[5]**

171/14 • • Furfuryl alcohol polymers **[5]**

173/00 Adhesives based on macromolecular compounds obtained by reactions forming a linkage containing oxygen or oxygen and carbon in the main chain, not provided for in groups C09J 159/00-C09J 171/00; Adhesives based on derivatives of such polymers [5]

173/02 • Polyanhydrides **[5]**

175/00 Adhesives based on polyureas or polyurethanes; Adhesives based on derivatives of such polymers [5]

175/02 • Polyureas **[5]**

175/04 • Polyurethanes **[5]**

175/06 • • from polyesters **[5]**

175/08 • • from polyethers **[5]**

175/10 • • from polyacetals **[5]**

175/12 • • from compounds containing nitrogen and active hydrogen, the nitrogen atom not being part of an isocyanate group **[5]**

175/14 • • Polyurethanes having carbon-to-carbon unsaturated bonds **[5]**

175/16 • • • having terminal carbon-to-carbon unsaturated bonds **[5]**

177/00 Adhesives based on polyamides obtained by reactions forming a carboxylic amide link in the main chain (based on polyhydrazides C09J 179/06; based on polyamide-imides C09J 179/08)**; Adhesives based on derivatives of such polymers [5]**

177/02 • Polyamides derived from omega-amino carboxylic acids or from lactams thereof (C09J 177/10 takes precedence) **[5]**

177/04 • Polyamides derived from alpha-amino carboxylic acids (C09J 177/10 takes precedence) **[5]**

177/06 • Polyamides derived from polyamines and polycarboxylic acids (C09J 177/10 takes precedence) **[5]**

177/08 • • from polyamines and polymerised unsaturated fatty acids **[5]**

177/10 • Polyamides derived from aromatically bound amino and carboxyl groups of amino carboxylic acids or of polyamines and polycarboxylic acids **[5]**

177/12 • Polyester-amides **[5]**

179/00 Adhesives based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing nitrogen, with or without oxygen, or carbon only, not provided for in groups C09J 161/00-C09J 177/00 [5]

179/02 • Polyamines **[5]**

179/04 • Polycondensates having nitrogen-containing heterocyclic rings in the main chain; Polyhydrazides; Polyamide acids or similar polyimide precursors **[5]**

179/06 • • Polyhydrazides; Polytriazoles; Polyamino-triazoles; Polyoxadiazoles **[5]**

179/08 • • Polyimides; Polyester-imides; Polyamide-imides; Polyamide acids or similar polyimide precursors **[5]**

181/00 Adhesives based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing sulfur, with or without nitrogen, oxygen, or carbon only; Adhesives based on polysulfones; Adhesives based on derivatives of such polymers [5]

181/02 • Polythioethers; Polythioether-ethers **[5]**

181/04 • Polysulfides **[5]**

181/06 • Polysulfones; Polyethersulfones **[5]**

181/08 • Polysulfonates **[5]**

181/10 • Polysulfonamides; Polysulfonimides **[5]**

183/00 Adhesives based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing silicon, with or without sulfur, nitrogen, oxygen, or carbon only; Adhesives based on derivatives of such polymers [5]

183/02 • Polysilicates **[5]**

183/04 • Polysiloxanes **[5]**

183/05 • • containing silicon bound to hydrogen **[5]**

183/06 • • containing silicon bound to oxygen-containing groups (C09J 183/12 takes precedence) **[5]**

183/07 • • containing silicon bound to unsaturated aliphatic groups **[5]**

183/08 • • containing silicon bound to organic groups containing atoms other than carbon, hydrogen, and oxygen **[5]**

183/10 • Block or graft copolymers containing polysiloxane sequences (obtained by polymerising a compound having a carbon-to-carbon double bond on to a polysiloxane C09J 151/08, C09J 153/00) **[5]**

183/12 • • containing polyether sequences **[5]**

183/14 • in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms (C09J 183/10 takes precedence) **[5]**

183/16 • in which all the silicon atoms are connected by linkages other than oxygen atoms **[5]**

185/00 Adhesives based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing atoms other than silicon, sulfur, nitrogen, oxygen, and carbon; Adhesives based on derivatives of such polymers [5]

185/02 • containing phosphorus **[5]**

185/04 • containing boron **[5]**

187/00 Adhesives based on unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon-bonds [5]

Adhesives based on natural macromolecular compounds or on derivatives thereof [5]

189/00 Adhesives based on proteins; Adhesives based on derivatives thereof [5]

189/02 • Casein-aldehyde condensates **[5]**

189/04 • Products derived from waste materials, e.g. horn, hoof or hair **[5]**

189/06 • • derived from leather or skin **[5]**

191/00 Adhesives based on oils, fats or waxes; Adhesives based on derivatives thereof [5]

191/02 • Vulcanised oils, e.g. factice **[5]**

191/04 • Linoxyn **[5]**

191/06 • Waxes **[5]**

191/08 • • Mineral waxes **[5]**

193/00 Adhesives based on natural resins; Adhesives based on derivatives thereof (based on polysaccharides C09J 101/00-C09J 105/00; based on natural rubber C09J 107/00) **[5]**

193/02 • Shellac **[5]**

193/04 • Rosin **[5]**

195/00 Adhesives based on bituminous materials, e.g. asphalt, tar or pitch [5]

197/00 Adhesives based on lignin-containing materials (based on polysaccharides C09J 101/00-C09J 105/00) **[5]**

197/02 • Lignocellulosic material, e.g. wood, straw or bagasse **[5]**

199/00 Adhesives based on natural macromolecular compounds or on derivatives thereof, not provided for in groups C09J 101/00-C09J 107/00 or C09J 189/00-C09J 197/00 [5]

201/00 Adhesives based on unspecified macromolecular compounds [5]

201/02 • characterised by the presence of specified groups **[5]**

201/04 • • containing halogen atoms **[5]**

201/06 • • containing oxygen atoms **[5]**

201/08 • • • Carboxyl groups **[5]**

201/10 • • containing hydrolysable silane groups **[5]**

C09K MATERIALS FOR APPLICATIONS NOT OTHERWISE PROVIDED FOR; APPLICATIONS OF MATERIALS NOT OTHERWISE PROVIDED FOR

Note(s)

1. This subclass covers also the use of specified materials in general or their use for the applications not specifically provided for elsewhere.
2. In this subclass, the following term is used with the meaning indicated:
   - "materials" includes compositions.

3/00 Materials not provided for elsewhere [2]

3/10 • for sealing or packing joints or covers

3/12 • for stopping leaks, e.g. in radiators or in tanks

3/14 • Anti-slip materials; Abrasives **[4]**

3/16 • Anti-static materials **[4]**

3/18 • for application to surface to minimize adherence of ice, mist or water thereto; Thawing or antifreeze materials for application to surfaces **[4]**

3/20 • as substitutes for glycerol in its non-chemical uses, e.g. as a base in toilet creams or ointments

3/22 • for dust-laying or dust-absorbing **[4]**

3/24 • for simulating ice or snow **[4]**

3/30 • for aerosols **[4]**

3/32 • for treating liquid pollutants, e.g. oil, gasoline or fat (processes for making harmful chemical substances harmless or less harmful, by effecting a chemical change in the substances A62D 3/00)

5/00 Heat-transfer, heat-exchange or heat-storage materials, e.g. refrigerants; Materials for the production of heat or cold by chemical reactions other than by combustion [2]

5/02 • Materials undergoing a change of physical state when used (C09K 5/16, C09K 5/20 take precedence) **[2]**

5/04 • • the change of state being from liquid to vapour or vice-versa **[2]**

5/06 • • the change of state being from liquid to solid or vice-versa **[2]**

5/08 • Materials not undergoing a change of physical state when used (C09K 5/16, C09K 5/20 take precedence) **[7]**

5/10 • • Liquid materials **[7]**

5/12 • • • Molten materials, i.e. materials solid at room temperature, e.g. metals or salts **[7]**

5/14 • • Solid materials, e.g. powdery or granular **[7]**

5/16 • Materials undergoing chemical reactions when used **[7]**

5/18 • • Non-reversible chemical reactions **[7]**

5/20 • Antifreeze additives therefor, e.g. for radiator liquids **[7]**

8/00 Compositions for drilling of boreholes or wells; Compositions for treating boreholes or wells, e.g. for completion or for remedial operations [2006.01]

8/02 • Well-drilling compositions **[2006.01]**

Note(s) [2006.01]

In groups C09K 8/03-C09K 8/38, in the absence of an indication to the contrary, classification is made in the last appropriate place.

8/03 • • Specific additives for general use in well-drilling compositions **[2006.01]**

8/035 • • • Organic additives **[2006.01]**
8/04 • • Aqueous well-drilling compositions **[2006.01]**
8/05 • • • containing inorganic compounds only, e.g. mixtures of clay and salt **[2006.01]**
8/06 • • • Clay-free compositions (containing inorganic compounds only C09K 8/05) **[2006.01]**
8/08 • • • • containing natural organic compounds, e.g. polysaccharides, or derivatives thereof **[2006.01]**
8/10 • • • • • Cellulose or derivatives thereof **[2006.01]**
8/12 • • • • containing synthetic organic macromolecular compounds or their precursors **[2006.01]**
8/14 • • • Clay-containing compositions (containing inorganic compounds only C09K 8/05) **[2006.01]**
8/16 • • • • characterised by the inorganic compounds other than clay **[2006.01]**
8/18 • • • • characterised by the organic compounds **[2006.01]**
8/20 • • • • • Natural organic compounds or derivatives thereof, e.g. polysaccharides or lignin derivatives **[2006.01]**
8/22 • • • • • Synthetic organic compounds **[2006.01]**
8/24 • • • • • • Polymers **[2006.01]**
8/26 • • • Oil-in-water emulsions **[2006.01]**
8/28 • • • • containing organic additives **[2006.01]**
8/32 • • Non-aqueous well-drilling compositions, e.g. oil-based **[2006.01]**
8/34 • • • Organic liquids **[2006.01]**
8/36 • • • Water-in-oil emulsions **[2006.01]**
8/38 • • Gaseous or foamed well-drilling compositions **[2006.01]**
8/40 • Spacer compositions, e.g. compositions used to separate well-drilling from cementing masses **[2006.01]**
8/42 • Compositions for cementing, e.g. for cementing casings into boreholes; Compositions for plugging, e.g. for killing wells (compositions for plastering borehole walls C09K 8/50) **[2006.01]**
8/44 • • containing organic binders only **[2006.01]**
8/46 • • containing inorganic binders, e.g. Portland cement **[2006.01]**
8/467 • • • containing additives for specific purposes **[2006.01]**
8/473 • • • • Density reducing additives, e.g. for obtaining foamed cement compositions **[2006.01]**
8/48 • • • • Density increasing or weighting additives **[2006.01]**
8/487 • • • • Fluid loss control additives; Additives for reducing or preventing circulation loss **[2006.01]**
8/493 • • • • Additives for reducing or preventing gas migration **[2006.01]**
8/50 • Compositions for plastering borehole walls, i.e. compositions for temporary consolidation of borehole walls **[2006.01]**
8/502 • • Oil-based compositions **[2006.01]**
8/504 • • Compositions based on water or polar solvents (C09K 8/502 takes precedence) **[2006.01]**
8/506 • • • containing organic compounds **[2006.01]**
8/508 • • • • macromolecular compounds **[2006.01]**
8/512 • • • • • containing cross-linking agents **[2006.01]**
8/514 • • • • • of natural origin, e.g. polysaccharides, cellulose (C09K 8/512 takes precedence) **[2006.01]**
8/516 • • characterised by their form or by the form of their components, e.g. encapsulated material **[2006.01]**
8/518 • • • Foams **[2006.01]**
8/52 • Compositions for preventing, limiting or eliminating depositions, e.g. for cleaning **[2006.01]**
8/524 • • organic depositions, e.g. paraffins or asphaltenes **[2006.01]**
8/528 • • inorganic depositions, e.g. sulfates or carbonates **[2006.01]**
8/532 • • • Sulfur **[2006.01]**
8/536 • • characterised by their form or by the form of their components, e.g. encapsulated material **[2006.01]**
8/54 • Compositions for in situ inhibition of corrosion in boreholes or wells **[2006.01]**
8/56 • Compositions for consolidating loose sand or the like around wells without excessively decreasing the permeability thereof **[2006.01]**
8/565 • • Oil-based compositions **[2006.01]**
8/57 • • Compositions based on water or polar solvents (C09K 8/565 takes precedence) **[2006.01]**
8/575 • • • containing organic compounds **[2006.01]**
8/58 • Compositions for enhanced recovery methods for obtaining hydrocarbons, i.e. for improving the mobility of the oil, e.g. displacing fluids **[2006.01]**
8/582 • • characterised by the use of bacteria **[2006.01]**
8/584 • • characterised by the use of specific surfactants **[2006.01]**
8/588 • • characterised by the use of specific polymers **[2006.01]**
8/592 • • Compositions used in combination with generated heat, e.g. by steam injection **[2006.01]**
8/594 • • Compositions used in combination with injected gas (C09K 8/592 takes precedence) **[2006.01]**
8/60 • Compositions for stimulating production by acting on the underground formation **[2006.01]**
8/62 • • Compositions for forming crevices or fractures **[2006.01]**
8/64 • • • Oil-based compositions **[2006.01]**
8/66 • • • Compositions based on water or polar solvents (C09K 8/64 takes precedence) **[2006.01]**
8/68 • • • • containing organic compounds **[2006.01]**
8/70 • • • characterised by their form or by the form of their components, e.g. foams **[2006.01]**
8/72 • • • Eroding chemicals, e.g. acids **[2006.01]**
8/74 • • • • combined with additives added for specific purposes **[2006.01]**
8/76 • • • • • for preventing or reducing fluid loss **[2006.01]**
8/78 • • • • • for preventing sealing **[2006.01]**
8/80 • • Compositions for reinforcing fractures, e.g. compositions of proppants used to keep the fractures open **[2006.01]**
8/82 • • Oil-based compositions (C09K 8/64 takes precedence) **[2006.01]**
8/84 • • Compositions based on water or polar solvents (C09K 8/66, C09K 8/82 take precedence) **[2006.01]**
8/86 • • • containing organic compounds **[2006.01]**
8/88 • • • • macromolecular compounds **[2006.01]**
8/90 • • • • • of natural origin, e.g. polysaccharides, cellulose **[2006.01]**
8/92 • • characterised by their form or by the form of their components, e.g. encapsulated material (C09K 8/70 takes precedence) **[2006.01]**
8/94 • • • Foams **[2006.01]**

9/00 Tenebrescent materials, i.e. materials for which the range of wavelengths for energy adsorption is changed as a result of excitation by some form of energy [2]

9/02 • Organic tenebrescent materials **[2]**

11/00 Luminescent, e.g. electroluminescent, chemiluminescent, materials [2]

11/01 • Recovery of luminescent materials **[3]**

11/02 • Use of particular materials as binders, particle coatings or suspension media therefor **[2]**

11/04 • containing natural or artificial radioactive elements or unspecified radioactive elements **[2]**

11/06 • containing organic luminescent materials **[2]**

11/07 • • having chemically-interreactive components, e.g. reactive chemiluminescent compositions **[3]**

11/08 • containing inorganic luminescent materials **[2]**

Note(s)

In groups C09K 11/54-C09K 11/89, in the absence of an indication to the contrary, materials are classified in the last appropriate place; however, activating constituents of the luminescent materials are disregarded for classification purposes.

11/54 • • containing zinc or cadmium **[4]**

11/55 • • containing beryllium, magnesium, alkali metals or alkaline earth metals **[4]**

11/56 • • containing sulfur **[4]**

11/57 • • containing manganese or rhenium **[4]**

11/58 • • containing copper, silver or gold **[4]**

11/59 • • containing silicon **[4]**

11/60 • • containing iron, cobalt or nickel **[4]**

11/61 • • containing fluorine, chlorine, bromine, iodine or unspecified halogen elements **[4]**

11/62 • • containing gallium, indium or thallium **[4]**

11/63 • • containing boron **[4]**

11/64 • • containing aluminium **[4]**

11/65 • • containing carbon **[4]**

11/66 • • containing germanium, tin or lead **[4]**

11/67 • • containing refractory metals **[4]**

11/68 • • • containing chromium, molybdenum or tungsten **[4]**

11/69 • • • containing vanadium **[4]**

11/70 • • containing phosphorus **[4]**

11/71 • • • also containing alkaline earth metals **[4]**

11/72 • • • also containing halogen, e.g. halophosphates **[4]**

11/73 • • • • also containing alkaline earth metals **[4]**

11/74 • • containing arsenic, antimony or bismuth **[4]**

11/75 • • • containing antimony **[4]**

11/76 • • • • also containing phosphorus and halogen, e.g. halophosphates **[4]**

11/77 • • containing rare earth metals **[4]**

11/78 • • • containing oxygen **[4]**

11/79 • • • containing silicon **[4]**

11/80 • • • containing aluminium or gallium **[4]**

11/81 • • • containing phosphorus **[4]**

11/82 • • • containing vanadium **[4]**

11/83 • • • containing vanadium and phosphorus **[4]**

11/84 • • • containing sulfur, e.g. oxysulfides **[4]**

11/85 • • • containing halogen **[4]**

11/86 • • • containing oxygen and halogen, e.g. oxyhalides **[4]**

11/87 • • containing platinum group metals **[4]**

11/88 • • containing selenium, tellurium or unspecified chalcogen elements **[4]**

11/89 • • containing mercury **[4]**

13/00 Etching, surface-brightening or pickling compositions [2]

Note(s)

In groups C09K 13/02-C09K 13/12, a composition is classified in the last appropriate place.

13/02 • containing an alkali metal hydroxide **[2]**

13/04 • containing an inorganic acid **[2]**

13/06 • • with organic material **[2]**

13/08 • • containing a fluorine compound **[2]**

13/10 • • containing a boron compound **[2]**

13/12 • containing heavy metal salts in an amount of at least 50% of the non-solvent components **[2]**

15/00 Anti-oxidant compositions; Compositions inhibiting chemical change [4]

Note(s)

1. In groups C09K 15/02-C09K 15/34, in the absence of an indication to the contrary, a composition is classified in the last appropriate place.
2. In groups C09K 15/02-C09K 15/34, a metal salt of an organic compound is classified as that compound.

15/02 • containing inorganic compounds **[2]**

15/04 • containing organic compounds **[2]**

15/06 • • containing oxygen **[2]**

15/08 • • • containing a phenol or quinone moiety **[2]**

15/10 • • containing sulfur **[2]**

15/12 • • containing sulfur and oxygen **[2]**

15/14 • • • containing a phenol or quinone moiety **[2]**

15/16 • • containing nitrogen **[2]**

15/18 • • • containing an amine or imine moiety **[2]**

15/20 • • containing nitrogen and oxygen **[2]**

15/22 • • • containing an amide or imide moiety **[2]**

15/24 • • • containing a phenol or quinone moiety **[2]**

15/26 • • containing nitrogen and sulfur **[2]**

15/28 • • containing nitrogen, oxygen and sulfur **[2]**

15/30 • • containing heterocyclic ring with at least one nitrogen atom as ring member **[2]**

15/32 • • containing boron, silicon, phosphorus, selenium, tellurium or a metal **[2]**

15/34 • containing plant or animal materials of unknown composition **[2]**

17/00 Soil-conditioning materials or soil-stabilising materials [3]

Note(s)

1. This group covers mixtures of soil-conditioning or soil-stabilising materials with fertilisers characterised by their soil-conditioning or soil-stabilising activity.
2. This group does not cover mixtures of soil-conditioning or soil-stabilising materials with fertilisers characterised by their fertilising activity which are covered by subclass C05G.
3. For the purpose of classification in this group, the presence of fertilisers in the composition is not taken into account.
4. In groups C09K 17/02-C09K 17/40, in the absence of an indication to the contrary, materials are classified in the last appropriate place.

5. In this group, it is desirable to add the indexing codes of groups C09K 101/00-C09K 109/00.

17/02 • containing inorganic compounds only **[6]**
17/04 • • applied in a physical form other than a solution or a grout, e.g. as granules or gases **[6]**
17/06 • • Calcium compounds, e.g. lime **[6]**
17/08 • • Aluminium compounds, e.g. aluminium hydroxide **[6]**
17/10 • • Cements, e.g. Portland cement **[6]**
17/12 • • Water-soluble silicates, e.g. waterglass **[6]**
17/14 • containing organic compounds only **[6]**
17/16 • • applied in a physical form other than a solution or a grout, e.g. as platelets or granules **[6]**
17/18 • • Prepolymers; Macromolecular compounds **[6]**
17/20 • • • Vinyl polymers **[6]**
17/22 • • • • Polyacrylates; Polymethacrylates **[6]**
17/24 • • • Condensation polymers of aldehydes or ketones **[6]**
17/26 • • • • Phenol-aldehyde condensation polymers **[6]**
17/28 • • • • Urea-aldehyde condensation polymers **[6]**
17/30 • • • Polyisocyanates; Polyurethanes **[6]**
17/32 • • • of natural origin, e.g. cellulosic materials **[6]**
17/34 • • • Bituminous materials **[6]**
17/36 • • Compounds having one or more carbon-to-silicon linkages **[6]**
17/38 • • • Siloxanes **[6]**
17/40 • containing mixtures of inorganic and organic compounds **[6]**
17/42 • • Inorganic compounds mixed with organic active ingredients, e.g. accelerators **[6]**
17/44 • • • the inorganic compound being cement **[6]**
17/46 • • • the inorganic compound being a water-soluble silicate **[6]**
17/48 • • Organic compounds mixed with inorganic active ingredients, e.g. polymerisation catalysts **[6]**
17/50 • • • the organic compound being of natural origin, e.g. cellulose derivatives **[6]**
17/52 • Mulches **[6]**

19/00 Liquid crystal materials [4]

Note(s)

In groups C09K 19/02-C09K 19/52 in the absence of an indication to the contrary, materials are classified in the last appropriate place.

19/02 • characterised by optical, electrical or physical properties of the components, in general **[4]**
19/04 • characterised by the chemical structure of the liquid crystal components **[4]**
19/06 • • Non-steroidal liquid crystal compounds **[4]**
19/08 • • • containing at least two non-condensed rings **[4]**
19/10 • • • • containing at least two benzene rings **[4]**
19/12 • • • • • at least two benzene rings directly linked, e.g. biphenyls **[4]**
19/14 • • • • • linked by a carbon chain **[4]**
19/16 • • • • • • the chain containing carbon-to-carbon double bonds, e.g. stilbenes **[4]**
19/18 • • • • • • the chain containing carbon-to-carbon triple bonds, e.g. tolans **[4]**
19/20 • • • • • linked by a chain containing carbon and oxygen atoms as chain links, e.g. esters **[4]**
19/22 • • • • • linked by a chain containing carbon and nitrogen atoms as chain links, e.g. Schiff bases **[4]**
19/24 • • • • • linked by a chain containing nitrogen-to-nitrogen bonds **[4]**
19/26 • • • • • • Azoxy compounds **[4]**
19/28 • • • • • linked by a chain containing carbon and sulfur atoms as chain links, e.g. thioesters **[4]**
19/30 • • • • containing saturated or unsaturated non-aromatic rings, e.g. cyclohexane rings **[4]**
19/32 • • • containing condensed ring systems, i.e. fused, bridged or spiro ring systems **[4]**
19/34 • • • containing at least one heterocyclic ring **[4]**
19/36 • • Steroidal liquid crystal compounds **[4]**
19/38 • • Polymers, e.g. polyamides **[4]**
19/40 • • containing elements other than carbon, hydrogen, halogen, oxygen, nitrogen or sulfur, e.g. silicon, metals **[4]**
19/42 • • Mixtures of liquid crystal compounds covered by two or more of the preceding groups C09K 19/06-C09K 19/40 **[4]**

Note(s)

1. This group does not cover mixtures containing two or more liquid crystal compounds covered individually by the same one of groups C09K 19/04-C09K 19/40 which are classified only in that group.
2. If liquid crystal components of the mixtures classified in this group are of interest as such, they are also classified according to the compounds in groups C09K 19/04-C09K 19/40.

19/44 • • • containing compounds with benzene rings directly linked **[4]**
19/46 • • • containing esters **[4]**
19/48 • • • containing Schiff bases **[4]**
19/50 • • • containing steroidal liquid crystal compounds **[4]**
19/52 • characterised by components which are not liquid crystals, e.g. additives **[4]**
19/54 • • Additives having no specific mesophase **[4]**
19/56 • • • Aligning agents **[4]**
19/58 • • Dopants or charge transfer agents **[4]**
19/60 • • Pleochroic dyes **[4]**

21/00 Fireproofing materials [4]

Note(s)

In groups C09K 21/02-C09K 21/14, in the absence of an indication to the contrary, materials are classified in the last appropriate place.

21/02 • Inorganic materials **[4]**
21/04 • • containing phosphorus **[4]**
21/06 • Organic materials **[4]**
21/08 • • containing halogen **[4]**
21/10 • • containing nitrogen **[4]**
21/12 • • containing phosphorus **[4]**
21/14 • Macromolecular materials **[4]**

Indexing scheme associated with group C09K 17/00, relating to the use or the intended effect of the soil-conditioning or soil-stabilising materials. [6]

101/00 Agricultural use [6]

103/00 Civil engineering use [6]

105/00 Erosion prevention [6]

107/00 Impermeabilisation [6]

109/00 pH regulation [6]