

**22 Dyes, varnishes, lacquers, paints, adhesives**

**22 (IPC: C09) Dyes; Paints; Polishes; Natural resins; Adhesives; Miscellaneous compositions; Miscellaneous applications of materials**

**22a Azo, azoxy, and hydrazone dyes, as such and applied to the fibre**

**22a (IPC: C09B) Organic dyes or closely related compounds for producing dyes; Mordants; Lakes**

**22b Acridines, anthracene dyes, di- and triarylmethane dyes, phthaleins, pyronines, oxyketone dyes**

**22c Azines, oxazines, thiazines, indulines, safranines, eurhodines, indophenols**

**22d Sulfur-containing dyes**

**22e Indigo, thioindigo and other dyes, except 22a – 22d**

**22f Pigments: mineral and bronze dyes, lakes**

**22f (IPC: C09C) Preparation of inorganic pigments or non-fibrous fillers; Treatment of inorganic materials, other than fibrous fillers, to enhance their pigmenting or filling properties**

**22g Inks, marking dyes, artists' paints, pearl essence, dye binders, shoe creams, polishing waxes, paints, embossing sheets, mordants, cleaning, polishing, and finishing materials**

**22g (IPC: C09D) Inks; Paints; Varnishes; Lacquers; Chemical paint removers; Pastes and solids for colouring or printing**

**22h Resins, varnishes, lacquers, drying agents, polishes, tar and pitch containing mixtures, synthetic asphalts**

**22h1 (IPC: C09F) Natural resins; French polish; Drying-oils; Driers, i.e. siccatives; Turpentine**

**22h2 (IPC: C09G) Polishing compositions other than French polish; Ski waxes**

**22i Putties, glues and other adhesives, packing materials**

**22i1 (IPC: C09H) Preparation of glue or gelatine**

**22i2 (IPC: C09J) The use of materials other than glue as adhesives; Adhesive processes in general, non-mechanic part**

**22k (IPC: C09K) Miscellaneous compositions; Miscellaneous applications of materials**

**22a Azo, azoxy, and hydrazone dyes, as such and applied to the fibre (azoxy dyes, see specific dyes)**

**Monoazo dyes as such and applied to the fibre**

22a-1 Monoazo dyes in general

22a-2 Ortho-hydroxy-monoazo dyes

- 22a-3 Monoazo dyes from primulin, and similar thio bases
- Disazo dyes as such and applied to the fibre**
- 22a-4 Primary disazo dyes
- 22a-5 Secondary disazo dyes
- 22a-6 Disazo dyes from diaminodiphenyl and its derivatives, Congo dyes
- 22a-7 Disazo dyes from phenylene and naphtylene diamines
- 22a-8 Disazo dyes from various diamines, except 22a-6 and 22a-7
- Polyazo dyes, also on the fibre**
- 22a-9 Polyazo dyes from monoamines
- 22a-10 Polyazo dyes from diamines
- 22a-11 Polyazo dyes from polyamines: triaminotriphenylmethane, etc.
- 22a-12 Chrysoidine and Bismark brown dyestuffs
- 22a-13 Stilbene dyes
- 22a-14 Hydrazone dyes

**22a (IPC: C09B) Organic dyes or closely related compounds for producing dyes; Mordants; Lakes**

**Note:**

**In this subclass, a compound is always classified in the last appropriate place.**

**Anthracene dyes**

- 22a-1/00 Dyes with an anthracene nucleus not condensed with any other ring**
- 22a-1/02 . Hydroxy-anthraquinones; Ethers and esters thereof
- 22a-1/04 . . Preparation by synthesis of the nucleus
- 22a-1/06 . . Preparation from starting materials already containing the anthracene nucleus
- 22a-1/08 . . . Dyes containing only OH groups
- 22a-1/10 . . . Dyes containing halogen
- 22a-1/12 . . . Dyes containing sulphonic acid groups
- 22a-1/14 . . . Dyes containing ether groups
- 22a-1/16 . Amino-anthraquinones
- 22a-1/18 . . Preparation by synthesis of the nucleus
- 22a-1/20 . . Preparation from starting materials already containing the anthracene nucleus
- 22a-1/22 . . . Dyes with unsubstituted amino groups
- 22a-1/24 . . . . sulphonated
- 22a-1/26 . . . Dyes with amino groups substituted by hydrocarbon radicals
- 22a-1/28 . . . . substituted by alkyl, aralkyl, or cyclo-alkyl groups
- 22a-1/30 . . . . . sulphonated
- 22a-1/32 . . . . substituted by aryl groups (anthrimides 22a-1/48)
- 22a-1/34 . . . . . sulphonated
- 22a-1/36 . . . Dyes with acylated amino groups
- 22a-1/38 . . . . urea and thiourea derivatives
- 22a-1/40 . . . . the acyl groups being residues of an aliphatic or araliphatic carboxylic acid
- 22a-1/42 . . . . the acyl groups being residues of an aromatic carboxylic acid
- 22a-1/44 . . . . the acyl groups being residues of a heterocyclic carboxylic acid
- 22a-1/46 . . . . the acyl groups being residues of cyanuric acid or an analogous heterocyclic compound
- 22a-1/48 . . . Anthrimides
- 22a-1/50 . Amino-hydroxy-anthraquinones; Ethers and esters thereof
- 22a-1/52 . . sulphonated
- 22a-1/54 . . etherified
- 22a-1/56 . Mercapto-anthraquinones
- 22a-3/00 Dyes with anthracene nucleus condensed with one or more carbocyclic rings**
- 22a-3/02 . Benzathrones
- 22a-3/04 . . Preparation by synthesis of the nucleus

- 22a-3/06 . . Preparation from starting materials already containing the benzanthrone nucleus
- 22a-3/08 . . . by halogenation
- 22a-3/10 . . . Amino derivatives
- 22a-3/12 . . Dibenzanthronyls
- 22a-3/14 . Perylene derivatives
- 22a-3/16 . . Preparation by synthesis of the nucleus
- 22a-3/18 . . Preparation from starting materials already containing the perylene nucleus
- 22a-3/20 . . . by halogenation
- 22a-3/22 . Dibenzanthrones; Isodibenzanthrones
- 22a-3/24 . . Preparation by synthesis of the nucleus
- 22a-3/26 . . . from dibenzanthronyls
- 22a-3/28 . . . from perylene derivatives
- 22a-3/30 . . Preparation from starting materials already containing the dibenzanthrone or isodibenzanthrone nucleus
- 22a-3/32 . . . by halogenation
- 22a-3/34 . . . by oxidation
- 22a-3/36 . . . by etherification of hydroxy compounds
- 22a-3/38 . . . by introduction of hydrocarbon or acyl residues into amino groups
- 22a-3/40 . Pyranthrones
- 22a-3/42 . . Preparation by synthesis of the nucleus
- 22a-3/44 . . Preparation from starting materials already containing the pyranthrone nucleus
- 22a-3/46 . . . by halogenation
- 22a-3/48 . . . Amino derivatives
- 22a-3/50 . Dibenzopyrenequinones
- 22a-3/52 . . Preparation by synthesis of the nucleus
- 22a-3/54 . . Preparation from starting materials already containing the dibenzopyrenequinone nucleus
- 22a-3/56 . . . Amino derivatives
- 22a-3/58 . Benzanthraquinones
- 22a-3/60 . Anthanthrones
- 22a-3/62 . . Preparation by synthesis of the nucleus
- 22a-3/64 . . Preparation from starting materials already containing the anthanthrone nucleus
- 22a-3/66 . . . by halogenation
- 22a-3/68 . . . Amino derivatives
- 22a-3/70 . Benzo-, naphtho-, and anthra-dianthrones
- 22a-3/72 . . Preparation by synthesis of the nucleus
- 22a-3/74 . . Preparation from starting materials already containing the benzodianthrone, naphthodianthrone or anthradianthrone nucleus
- 22a-3/76 . . . by halogenation
- 22a-3/78 . Other dyes in which the anthracene nucleus is condensed with one or more carbocyclic rings
- 22a-3/80 . . Preparation by synthesis of the nucleus
- 22a-3/82 . . Preparation from starting materials already containing the condensed anthracene nucleus
- 22a-5/00 Dyes with an anthracene nucleus condensed with one or more heterocyclic rings with or without carbocyclic rings**
- 22a-5/02 . the heterocyclic ring being condensed in peri position
- 22a-5/04 . . Pyrazolanthrones
- 22a-5/06 . . . Benzanthranyl-pyrazolanthrone condensation products
- 22a-5/08 . . . Dipyrazolanthrones
- 22a-5/10 . . Isothiazolanthrones; Isoxazolanthrones; Isoselenazolanthrones
- 22a-5/12 . . Thiophenanthrones
- 22a-5/14 . . Benz-azabenzanthrones (anthrapyridones)
- 22a-5/16 . . Benz-diazabenzanthrones, e.g. anthrapyrimidones
- 22a-5/18 . . Coeroxene; Coerthiene; Coeramidene; Derivatives thereof
- 22a-5/20 . . Flavanthrones
- 22a-5/22 . . . Preparation from starting materials already containing the flavanthrone nucleus
- 22a-5/24 . the heterocyclic ring(s) being condensed with an anthraquinone nucleus in 1-2 and/or 2-3 position
- 22a-5/26 . . Carbazoles of the anthracene series

- 22a-5/28 . . . Anthrimide carbazoles
- 22a-5/30 . . 1.2 azoles of the anthracene series
- 22a-5/32 . . 1.3 azoles of the anthracene series
- 22a-5/34 . . Anthraquinone acridones and thioxanthenes
- 22a-5/36 . . . Amino acridones
- 22a-5/38 . . . Compounds containing acridone and carbazole rings
- 22a-5/40 . . . Condensation products of benzanthranyl-amino-anthraquinones
- 22a-5/42 . . Pyridino anthraquinones
- 22a-5/44 . . Azines of the anthracene series
- 22a-5/46 . . . Para-diazines
- 22a-5/48 . . . . Bis-anthraquinonediazines (indanthrone)
- 22a-5/50 . . . . . Preparation by alkaline melting of 2-amino-anthraquinones
- 22a-5/52 . . . . . Preparation by condensation of 1.2-halogeno-amino-anthraquinones
- 22a-5/54 . . . . . Preparation from 2-amino-anthrahydroquinones
- 22a-5/56 . . . . . Preparation from starting materials already containing the indanthrene nucleus
- 22a-5/58 . . . . . by halogenation
- 22a-5/60 . . . Thiazines; Oxazines
- 22a-5/62 . Cyclic imides and amidines of peri-dicarboxylic acids of the anthracene, benzanthrene, and perylene series

**22a-7/00 Indigoid dyes**

- 22a-7/02 . Bis-indole indigos
- 22a-7/04 . . Halogenation thereof
- 22a-7/06 . Indone-thionaphthene indigos
- 22a-7/08 . Other indole-indigos
- 22a-7/10 . Bis-thionaphthene indigos
- 22a-7/12 . Other thionaphthene indigos

**22a-9/00 Esters and ester-salts of leuco compounds of vat dyestuffs**

- 22a-9/02 . of anthracene dyes
- 22a-9/04 . of indigoid dyes

**22a-11/00 Diaryl- and triarylmethane dyes**

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

**22a-13/00 Oxyketone dyes**

- 22a-13/02 . of the naphthalene series (e.g. naphthazarin)
- 22a-13/04 . of the pyrene series
- 22a-13/06 . of the acetophenone series

**Acridine, azine, oxazine, and thiazine dyes****22a-15/00 Acridine dyes****22a-17/00 Azine dyes**

- 22a-17/02 . of the benzene series
- 22a-17/04 . of the naphthalene series

22a-17/06 . Fluorindine and its derivatives

**22a-19/00 Oxazine dyes**

22a-19/02 . Bisoxazines prepared from aminoquinones

**22a-21/00 Thiazine dyes**

**Quinoline and polymethine dyes**

**22a-23/00 Methine or polymethine dyes [cyanines, etc.]**

22a-23/02 . the polymethine chain containing an odd number of CH groups

22a-23/04 . . one CH group (cyanines, isocyanines, pseudocyanines)

22a-23/06 . . three CH groups (carbocyanines)

22a-23/08 . . more than three CH groups (polycarbocyanines)

22a-23/10 . the polymethine chain containing an even number of CH groups; Merocyanines

22a-23/12 . the polymethine chain being branched

22a-23/14 . Styryl dyes

22a-23/16 . the polymethine chain containing hetero atoms

**22a-25/00 Quinophthalones**

**Azo dyes**

**22a-27/00 Preparations in which the azo group is formed in any way other than by diazotising and coupling**

22a-27/02 . Stilbene dyes

22a-27/04 . Hydrazone dyes; Tartrazines

**22a-29/00 Monoazo dyes prepared by diazotising and coupling**

22a-29/02 . from diazotised o-amino-hydroxy compounds

22a-29/04 . from diazotised o-amino-carboxylic acids

22a-29/06 . from coupling components containing amino as the only directing group

22a-29/08 . . amino-benzenes

22a-29/10 . from coupling components containing hydroxyl as the only directing group

22a-29/12 . . of the benzene series

22a-29/14 . . . Hydroxy-carboxylic acids

22a-29/16 . . hydroxy-naphthlene sulphonic acids

22a-29/18 . . ortho-hydroxy carbonamides

22a-29/20 . . . of the naphthalene series

22a-29/22 . . . of heterocyclic compounds

22a-29/24 . from coupling components containing both hydroxyl and amino directing groups

22a-29/26 . . Amino-phenols

22a-29/28 . . Amino-naphthols

22a-29/30 . . . Amino-naphtholsulphonic acid

22a-29/32 . from coupling components containing a reactive methylene group

22a-29/34 . from other coupling components

22a-29/36 . . from heterocyclic compounds

22a-29/38 . . . pyrazolones

**22a-31/00 Disazo and polyazo dyes of the type  $A \rightarrow B \rightarrow C$ ,  $A \rightarrow B \rightarrow C \rightarrow D$ , etc., prepared by diazotising and coupling**

22a-31/02 . Disazo dyes

22a-31/04 . . from a coupling component "C" containing a directive amino group

22a-31/06 . . from a coupling component "C" containing a directive hydroxyl group

22a-31/08 . . from a coupling component "C" containing directive hydroxyl and amino groups

22a-31/10 . . from a coupling component "C" containing reactive methylene groups

22a-31/12 . . from other coupling components "C"

22a-31/14 . . . heterocyclic components

22a-31/16 . Trisazo dyes


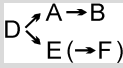

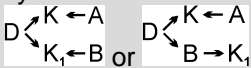

22a-31/18 . . from a coupling component "D" containing a directive amino group

22a-31/20 . . from a coupling component "D" containing a directive hydroxyl group

22a-31/22 . . from a coupling component "D" containing directive hydroxyl and amino groups

22a-31/24 . . from a coupling component "D" containing reactive methylene groups

22a-31/26 . . from other coupling components "D"

22a-31/28	. . . heterocyclic compounds
22a-31/30	. Other polyazo dyes
<b>22a-33/00</b>	<b>Disazo and polyazo dyes of the types <math>A \rightarrow K \leftarrow B</math>, <math>A \rightarrow B \rightarrow K \leftarrow C</math>, etc., prepared by diazotising and coupling</b>
22a-33/02	. Disazo dyes
22a-33/04	. . in which the coupling component is a dihydroxy or polyhydroxy compound
22a-33/06	. . in which the coupling component is a diamine or polyamine
22a-33/08	. . in which the coupling component is a hydroxy-amino compound
22a-33/10	. . . in which the coupling component is an amino-naphthol
22a-33/12	. . in which the coupling component is a heterocyclic compound
22a-33/14	. . in which the coupling component is an arylamide of an o-hydroxycarboxylic acid or of a „-keto-carboxylic acid
22a-33/16	. . from other coupling components
22a-33/18	. Trisazo or higher polyazo dyes of the types $A \rightarrow B \rightarrow K \leftarrow C$ , $A \rightarrow B \rightarrow C \rightarrow K \leftarrow D$ and $A \rightarrow B \rightarrow K \leftarrow C \leftarrow D$
22a-33/20	. Trisazo and higher polyazo dyes of the types 
<b>22a-35/00</b>	<b>Disazo and polyazo dyes of the type <math>A \leftarrow D \rightarrow B</math> prepared by diazotising and coupling</b>
22a-35/02	. Disazo dyes
22a-35/04	. . the tetrazo component being a benzene derivative
22a-35/06	. . the tetrazo component being a naphthalene derivative
22a-35/08	. . the tetrazo component being a derivative of biphenyl
22a-35/10	. . . from two coupling components of the same type
22a-35/12	. . . . from amines
22a-35/14	. . . . from hydroxy compounds
22a-35/16	. . . . from hydroxy-amines
22a-35/18	. . . . from heterocyclic compounds
22a-35/20	. . . from two coupling compounds of different types
22a-35/22	. . the tetrazo component being a derivative of a diaryl ether
22a-35/24	. . the tetrazo component being a derivative of a diaryl amine
22a-35/26	. . the tetrazo component being a derivative of a diaryl urea
22a-35/28	. . the tetrazo component containing two aryl nuclei linked together by a COHN group
22a-35/30	. . . from two identical coupling components
22a-35/32	. . . from two different coupling components
22a-35/34	. . the tetrazo component being heterocyclic
22a-35/36	. Trisazo and higher polyazo dyes of the type 
22a-35/38	. Trisazo dyes of the types 
22a-35/40	. . the component K being a dihydroxy or polyhydroxy compound
22a-35/42	. . the component K being a diamine or polyamine
22a-35/44	. . the component K being a hydroxy-amine
22a-35/46	. . . the component K being an amino-naphthol
22a-35/48	. . the component K being heterocyclic
22a-35/50	. Higher polyazo dyes of the type  or 
<b>22a-37/00</b>	<b>Azo dyes prepared by coupling the diazotised amine with itself</b>
<b>22a-39/00</b>	<b>Other azo dyes prepared by diazotising and coupling</b>
<b>22a-41/00</b>	<b>Special methods of performing the coupling reaction</b>
<b>22a-43/00</b>	<b>Preparation of azo dyes from other azo compounds</b>
22a-43/02	. by sulphonation
22a-43/04	. by nitration
22a-43/06	. by oxidation
22a-43/08	. by reduction
22a-43/10	. . with formation of a new azo or an azoxy bridge

22a-43/12	. by acylation of amino groups
22a-43/14	. . with phosgene or thiophosgene
22a-43/16	. . linking amino-azo compounds with other amino compounds by a heterocyclic residue, e.g. a cyanuric acid residue
22a-43/18	. by acylation of hydroxyl groups
<b>22a-45/00</b>	<b>Complex metal compounds of azo dyes</b>
22a-45/02	. Preparation from o.o1-dihydroxy, o-hydroxy-o1-alkoxy or o-hydroxy o1-carboxy azo compounds
22a-45/04	. . Azo compounds in general
22a-45/06	. . . Chromium compounds
22a-45/08	. . . Copper compounds
22a-45/10	. . . Cobalt compounds
22a-45/12	. . . other metal compounds
22a-45/14	. . Monoazo compounds
22a-45/16	. . . containing chromium
22a-45/18	. . . containing copper
22a-45/20	. . . containing cobalt
22a-45/22	. . . containing other metals
22a-45/24	. . Disazo and polyazo compounds
22a-45/26	. . . containing chromium
22a-45/28	. . . containing copper
22a-45/30	. . . containing cobalt
22a-45/32	. . . containing other metals
22a-45/34	. Preparation from o-monohydroxy azo compounds having in the o1-position an atom or group other than OH, OR or COOH
22a-45/36	. . by oxidation of hydrogen in o1 position
22a-45/38	. Preparation from compounds with OH and COOH adjacent in the same ring or in peri position
22a-45/40	. . Chromium compounds
22a-45/42	. . Copper compounds
22a-45/44	. . Cobalt compounds
22a-45/46	. . Other metal compounds
22a-45/48	. Preparation from other complex metal compounds of azo dyes
<b>22a-47/00</b>	<b>Porphyrins; Phorphyrazines</b>
22a-47/02	. Tetrazaporphyrins
22a-47/04	. . Phthalocyanines
22a-47/06	. . . Preparation from carboxylic acids or their amides
22a-47/08	. . . Preparation from other phthalocyanine compounds
22a-47/10	. . . . by halogenation
<b>22a-48/00</b>	<b>Quinacridones</b>
<b>22a-49/00</b>	<b>Sulphur dyes</b>
22a-49/02	. from nitro compounds of the benzene, naphthalene and anthracene series
22a-49/04	. from amino compounds of the benzene, naphthalene and anthracene series
22a-49/06	. from azines, oxazines, thiazines, and thiazoles
22a-49/08	. from urea derivatives
22a-49/10	. from diphenylamines, indamines, and indophenols
22a-49/12	. from other compounds
<b><u>Other organic dyes</u></b>	
<b>22a-51/00</b>	<b>Nitro and nitroso dyes</b>
<b>22a-53/00</b>	<b>Quinone imides</b>
22a-53/02	. Indamines; Indophenols
<b>22a-55/00</b>	<b>Azomethine dyes</b>
<b>22a-57/00</b>	<b>Other synthetic dyes of known constitution</b>
<b>22a-59/00</b>	<b>Artificial dyes of unknown constitution</b>

<b>22a-61/00</b>	<b>Dyes of natural origin prepared from natural sources</b>
<b>22a-62/00</b>	<b>Reactive dyes, i.e. dyes which form covalent bonds with the substrate</b>
22a-62/02	. with the reactive group directly attached to a heterocyclic ring
22a-62/04	. . to a triazine ring
22a-62/06	. . . Anthracene dyes
22a-62/08	. . . Azo dyes
22a-62/10	. . . Porphyrins; Porphyrans
22a-62/12	. . to a pyridazine ring
22a-62/14	. . . Anthracene dyes
22a-62/16	. . . Azo dyes
22a-62/18	. . . Porphyrins; Porphyrans
22a-62/20	. . to a pyrimidine ring
22a-62/22	. . . Anthracene dyes
22a-62/24	. . . Azo dyes
22a-62/26	. . . Porphyrins; Porphyrans
22a-62/28	. . to a pyrazine ring
22a-62/30	. . . Anthracene dyes
22a-62/32	. . . Azo dyes
22a-62/34	. . . Porphyrins; Porphyrans
22a-62/36	. . to some other heterocyclic ring
22a-62/38	. . . Anthracene dyes
22a-62/40	. . . Azo dyes
22a-62/42	. . . Porphyrins; Porphyrans
22a-62/44	. with the reactive group not directly attached to a heterocyclic ring
22a-62/46	. . the reactive group being a halogen atom
22a-62/48	. . . Anthracene dyes
22a-62/50	. . . Azo dyes
22a-62/52	. . . Porphyrins; Porphyrans
22a-62/54	. . the reactive group being an epoxy group
22a-62/56	. . . Anthracene dyes
22a-62/58	. . . Azo dyes
22a-62/60	. . . Porphyrins; Porphyrans
22a-62/62	. . the reactive group being an ethylenimino or ethylenimido group
22a-62/64	. . . Anthracene dyes
22a-62/66	. . . Azo dyes
22a-62/68	. . . Porphyrins; Porphyrans
22a-62/70	. . the reactive group being a C=C group, or an esterified or non-esterified hydroxyalkyl group (62/46 takes precedence)
22a-62/72	. . . Anthracene dyes
22a-62/74	. . . Azo dyes
22a-62/76	. . . Porphyrins; Porphyrans
22a-62/78	. . with other reactive groups
22a-62/80	. . . Anthracene dyes
22a-62/82	. . . Azo dyes
22a-62/84	. . . Porphyrins; Porphyrans

**Lakes; Mordants; Dyestuff preparations**

<b>22a-63/00</b>	<b>Lakes</b>
<b>22a-65/00</b>	<b>Compositions containing mordants</b> (preparation of the mordant compound 12)
<b>22a-67/00</b>	<b>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</b>



- 22b Acridines, anthracene dyes, di- and triarylmethane dyes, phthaleins, pyronines, oxyketone dyes**
- 22b-1 Acridine dyes
- Anthracene dyes**
- Nitrogen-free anthracene dyes
- 22b-2/01 Hydroxy and mercapto anthraquinones
- 22b-2/02 Di-, isodibenzanthrones
- 22b-2/03 Pyranthrones
- 22b-2/04 Dibenzopyrenequinones
- 22b-2/05 Other condensed carbocyclic ring systems derived from anthraquinones, e.g. benzantraquinones, anthanthrones, benzo-, naphtho-, anthradianthrones
- 22b-2/06 Anthraquinone thioanthonnes
- 22b-2/07 Other nitrogen-free anthracene dyes
- Nitrogen-containing anthracene dyes
- 22b-3/01 Aminoanthraquinones, aminohydroxyanthraquinones
- 22b-3/02 Alkyl-, arylaminoanthraquinones (anthrimides 22b-3/04)
- 22b-3/03 Acylaminoanthraquinones, also urea, thiourea, and cyanuric acid derivatives
- 22b-3/04 Anthrimides
- 22b-3/05 Anthrimidocarbazols
- 22b-3/06 Anthraquinone azines
- 22b-3/07 Flavanthrones
- 22b-3/08 Anthraquinone acridones and anthraquinone thioxanthonnes
- 22b-3/09 Di-, isobenzanthrones
- 22b-3/10 Pyranthrones
- 22b-3/11 Dibenzpyrene quinones
- 22b-3/12 Other condensed carbocyclic ring systems derived from anthraquinones, e.g. benzantraquinones, anthanthrones, benzo-, naphtho-, anthradianthrones
- 22b-3/13 Pyrazolanthrones
- 22b-3/14 Other heterocyclic anthrones
- 22b-3/15 Anthraquinones with heterocyclic ring systems (carbazols 22b-3/05; azines 22b-3/06; flavanthrones 22b-3/07; acridones and thioxanthonnes 22b-3/08; anthrones 22b-3/13 – 22b-3/14)
- 22b-3/16 Anthracene dyes with several different heterocyclic rings
- 22b-3/17 Other nitrogen-containing anthracene dyes
- Di- and triarylmethane dyes, hydroxyketone dyes**
- 22b-4 Diarylmethane dyes: auramines
- 22b-5 Hydroxyketone dyes derived from naphthalenes and pyrenes
- 22b-6 Hydroxyketone dyes derived from acetophenones
- 22b-7 Phthaleins without amino groups
- 22b-8 Phthaleins with amino groups
- 22b-9 Pyronines: xanthenes
- 22b-10 Triarylmethane dyes derived from aldehydes
- 22b-11 Triarylmethane dyes derived from aromatic ketones
- 22b-12 Triarylmethane dyes derived from hydroles
- 22b-13 Triaylemethane dyes obtained by oxidation
- 22b-14 Triarylmethane dyes from three components, except aldehydes and dyes obtained by the oxydation method
- 22b-15 Conversion products of simple triarylmethane dyes, except sulfonic acids
- 22b-16 Sulfonic acids from triarylmethane dyes
- 22b-17 Processing of residues from the production of triarylmethane dyes

**22c Azines, oxazines, thiazines, indulines, safranines, eurhodines, indophenols**

- 22c-1 Azines of the benzene series, e.g. eurhodines, safranines, indulines of the benzene series
- 22c-2 Azines of the naphthalene series, rosindulines
- 22c-3 Phenanthrazines
- 22c-4 Oxazines
- 22c-5 Thiazines
- 22c-6 Indophenols (12q-1; 12q-32; 12q-34; 22d-5)

**22d Sulfur-containing dyes**

- 22d-1 Sulfur dyes obtained from amino- and nitroamino compounds of the benzene and naphthalene series, possibly also of the anthracene series
- 22d-2 Sulfur dyes from nitrocompounds of the benzene-, naphthalene and anthracene series
- 22d-3 Sulfur dyes from azine, oxazine, thiazine, and thiazole derivatives
- 22d-4 Sulfur dyes from urea derivatives
- 22d-5 Sulfur dyes from indamine, indophenol, and diphenylamine derivatives
- 22d-6 Sulfur dyes from other than said compounds

**22e Indigo, thioindigo and other dyes, except 22a – 22d**

- 22e-1 Indigo, both natural and synthetic
- 22e-2 Natural dyes, except indigo
- 22e-3 Quinoline dyes
- 22e-4 Nitro, and nitroso dyes
- 22e-5 Dyes obtained by fermentation, except indigo
- 22e-6 Synthetic organic dyes of unknown constitution
- 22e-7/01 Thioindigoid dyes
- 22e-7/02 Other organic dyes, e.g. phtihalocyanines

**22f Pigments: mineral and bronze dyes, lakes**

- 22f-1 White lead
- 22f-2 Lead sulfate
- 22f-3 Litharge, minimum, lead chromate and other lead dyes not mentioned under 22f-1 or 22f-2
- 22f-4 Zinc dyes, except zinc sulfide, etc.
- 22f-5 Zinc sulfide, e.g. lithopones
- 22f-6 Baryte and lime dyes
- 22f-7 Iron, chromic oxide and titanium-base dyes (12i-39)
- 22f-8 Ultramarine
- 22f-9 Silicate dyes, except ultramarines
- 22f-10 Miscellaneous pigments
- 22f-11 Electrolytic preparation of pigment dyes, e.g. white lead
- 22f-12 Lakes
- 22f-13 Bronze powders, brocade dyes
- 22f-14 Carbon black (12i-33)
- 22f-15 Luminescent dyes

**22f (IPC: C09C) Preparation of inorganic pigments or non-fibrous fillers; Treatment of inorganic materials, other than fibrous fillers, to enhance their pigmenting or filling properties**

**Note:**

**In the absence of a reference to the contrary, a compound not specifically mentioned is classified in the last appropriate place.**

**22f-1/00 Preparation of treatment of specific inorganic pigments or non-fibrous fillers**

- 22f-1/02 . compounds of alkaline earth metals or magnesium
- 22f-1/04 . compounds of zinc
- 22f-1/06 . . lithopone
- 22f-1/08 . . zinc chromate
- 22f-1/10 . compounds of cadmium
- 22f-1/12 . . cadmium sulphoselenide
- 22f-1/14 . compounds of lead
- 22f-1/16 . . white lead
- 22f-1/18 . . red lead
- 22f-1/20 . . lead chromate
- 22f-1/22 . compounds of iron
- 22f-1/24 . . oxides of iron
- 22f-1/26 . . iron blues
- 22f-1/28 . compounds of silicon
- 22f-1/30 . . silicic acid
- 22f-1/32 . . ultramarine
- 22f-1/34 . compounds of chromium
- 22f-1/36 . compounds of titanium
- 22f-1/38 . compounds of mercury
- 22f-1/40 . compounds of aluminium
- 22f-1/42 . . clays (preparatory treatment for clay wares 80b-12/01)
- 22f-1/44 . pigments or fillers of the carbon type
- 22f-1/46 . . graphite (preparation of graphite 12i-31/04)
- 22f-1/48 . . carbon black
- 22f-1/50 . . . furnace black
- 22f-1/52 . . . channel black
- 22f-1/54 . . . acetylene black; thermal black
- 22f-1/56 . . . Treatment of carbon black
- 22f-1/58 . . . . Agglomerating, pelleting, and the like by wet methods
- 22f-1/60 . . . . Agglomerating, pelleting, and the like by dry methods
- 22f-1/62 . metallic pigments or fillers (obtaining metal powder, see the relevant class for the method used, e.g. 31b2-23/08, 31b3-9/00, 18a-15/02, 40a-5/20, 40c-5/00)
- 22f-1/64 . . aluminium
- 22f-1/66 . . copper alloys, e.g. bronze
- 22f-1/68 . loose abrasive particles

**22f-3/00 Treatment in general of inorganic pigments or of non-fibrous fillers to enhance their pigmenting or filling properties (dyeing macromolecular particles 8m; other methods of colouring macromolecular particles 39b)**

- 22f-3/02 . Improving the dispersing properties

**22g Inks, marking dyes, artists' paints, pearl essence, dye binders, shoe creams, polishing waxes, paints, embossing sheets, mordants, cleaning, polishing, and finishing materials**

- 22g-1 Inks, marking dyes (inks and colours for printing, stamp inks, 15I-7)
- 22g-2/01 Artists' paints, e.g. water colours, resin, oil and emulsion paints, liquid bronzes, materials for black and colour pencil leads or for slate pencils, chemical section (mechanical section 70a-1/02; painting technique 75c-1; ceramic paints 80b-23)
- 22g-2/02 Pearl essence

22g-3	Paint binders (lacquers 22h-3, 22h-4)
22g-5/01	Leather paints (lacquers 22h-3, 22h-4; impregnation of leather 28a-9; painting processes 75c-5/03)
22g-5/02	Shoe-preserving materials (preservation of leather 28a-9)
22g-5/03	Adhesive materials for belts
22g-6/01	Wood paints (wood-preserving agents 38h-2; painting processes 75c-5/02)
22g-6/02	Polishing materials (polishers 34c-8); ski lubricants, ski waxes (devices for waxing and treating snowshoes 77b-15/09, 77b-11/04, 77b-11/68 )
22g-6/03	Pore-filling materials (primers and surfacing agents 22h-5)
22g-7/01	Paints for metals, general (painting processes 75c-5/04)
22g-7/02	Rust and corrosion protection paints (corrosion protection by chemical surface treatment 48d-3, 48d-4, 48d1-13/00)
22g-8	Paints for artificial stone surfaces (painting processes 75c-5/07)
22g-9/01	Paints for roofs and other insulating surfaces (manufacture of roofing pasteboard, chemical section 8l-3; mechanical section 55f-14; insulating compounds, electric 21c-2; acoustic and thermal insulating materials 39b-16 – 39b-26; 80b-9; for pipes 47f-27)
22g-9/02	Paints for paper (coloured paper 55f-2)
22g-10/01	Paints, in general and for miscellaneous purposes (lacquers 22h-3, 22h-4; painting processes 75c-5/01)
22g-10/02	Paints containing luminescent and warning colours
22g-10/03	Paints for glass panes as protection against fogging or icing (mechanical section 37d-16; 34c-3)
22g-10/04	Embossing sheets (gelatine sheets 22i-7; 39a-18, 39a2-17/00, 39a3-7/00; manufacture of foils from cellulose derivatives 39b-12; methods for lacquering foils 75c-5/06; use of colour foils for printing purposes 15l-2; 15k-5; application of foils 75c-4/01)
22g-11	Blackboard paints (children's slates and writing surfaces for blackboards 70e-1, 70e-2)
22g-13	Mordants for paints, lacquer coatings, etc.
22g-14	Scouring, polishing, and cleaning materials, also abrasive pastes (abrasives 39b, 67c, 80b-11; polishes 22h-5; washing agents 23e-2; cleaning substances for printing forms 15l-6/03; soap preparations 23e-2)

<b>22g</b>	<b>(IPC: C09D) Inks; Paints; Varnishes; Lacquers; Chemical paint removers; Pastes and solids for colouring or printing (cosmetics 30h; painting, decorating 75; textile-treating compositions 8)</b>
<b>22g-1/00</b>	<b>Paints, varnishes, or lacquers essentially based on inorganic film-forming substances (80b takes precedence)</b>
22g-1/02	. alkali metal silicates
22g-1/04	. . with organic additives
22g-1/06	. cement
22g-1/08	. . with organic additives
22g-1/10	. lime
22g-1/12	. . with organic additives
<b>22g-3/00</b>	<b>Paints, varnishes, or lacquers essentially based on organic film-forming substances</b>
22g-3/02	. proteins
22g-3/04	. . gelatine or derivatives
22g-3/06	. . casein or derivatives
22g-3/08	. . prolamine or derivatives
22g-3/10	. polysaccharides
22g-3/12	. . cellulose derivatives
22g-3/14	. . . cellulose esters
22g-3/16	. . . . nitrocellulose
22g-3/18	. . . cellulose ethers
22g-3/20	. . starch or derivatives

- 22g-3/22 . . dextran or derivatives
- 22g-3/24 . liquid bituminous materials
- 22g-3/26 . drying-oils
- 22g-3/28 . . natural or modified oils
- 22g-3/30 . . . linseed oil
- 22g-3/32 . . . stand oils
- 22g-3/34 . . . oils with conjugated double bonds
- 22g-3/36 . rubber or derivatives
- 22g-3/38 . . chlorinated rubber
- 22g-3/40 . natural resins or derivatives
- 22g-3/42 . . with fatty material
- 22g-3/44 . . with wax material
- 22g-3/46 . . with bituminous material
- 22g-3/48 . essentially based on wholly synthetic film-forming substances
- 22g-3/50 . . aminoplasts
- 22g-3/52 . . . in combination with other plastics
- 22g-3/54 . . phenoplasts
- 22g-3/56 . . . in combination with other plastics
- 22g-3/58 . . epoxy resins
- 22g-3/60 . . hydrocarbon resins
- 22g-3/62 . . ketone resins
- 22g-3/64 . . polyesters, e.g. alkyd resins
- 22g-3/66 . . . in combination with other plastics
- 22g-3/68 . . . unsaturated polyesters
- 22g-3/70 . . polyamides
- 22g-3/72 . . polyurethanes
- 22g-3/74 . . vinyl resins
- 22g-3/76 . . . in combination with other plastics
- 22g-3/78 . . . fluorine-containing
- 22g-3/80 . . polyacrylates
- 22g-3/82 . . resins containing silicon in their structure
- 22g-3/84 . . resins containing titanium in their structure

### **22g-5/00 Paints, varnishes, or lacquers classified according to their physical nature or to the effects produced**

- 22g-5/02 . Emulsion paints
- 22g-5/04 . Thixotropic paints
- 22g-5/06 . Artists' paints
- 22g-5/08 . Anti-corrosive paints
- 22g-5/10 . . containing metal dust
- 22g-5/12 . . Wash primers
- 22g-5/14 . Paints containing fungicides or insecticides; Anti-fouling paints; Ship's bottom paints
- 22g-5/16 . . Ship's bottom paints
- 22g-5/18 . Fireproof paints
- 22g-5/20 . for coatings strippable as coherent films
- 22g-5/22 . Luminous paints
- 22g-5/24 . Electrically-conducting paints
- 22g-5/26 . Thermosensitive paints
- 22g-5/28 . for wrinkle, crackle, orange-peel, or similar decorative effects
- 22g-5/30 . Camouflage paints
- 22g-5/32 . Radiation-absorbing paints
- 22g-5/34 . Filling pastes, e.g. putties
- 22g-5/36 . Pearl essence

### **22g-7/00 Other features (driers 22h1-9/00)**

- 22g-7/02 . Use of compounds as anti-settling agents
- 22g-7/04 . Use of compounds as anti-skinning agents
- 22g-7/06 . Use of compounds as levelling agents
- 22g-7/08 . Pigment pastes
- 22g-7/10 . Wood stains
- 22g-7/12 . Other additives

22g-7/14	. Special processes for incorporating ingredients
<b>22g-9/00</b>	<b>Chemical paint or ink remover</b>
22g-9/02	. with abrasives
22g-9/04	. with surface-active agents
<b>22g-11/00</b>	<b>Inks</b>
22g-11/02	. Printing inks
22g-11/04	. . based on proteins
22g-11/06	. . based on fatty oils
22g-11/08	. . based on natural resins
22g-11/10	. . based on artificial resins
22g-11/12	. . based on waxes or bitumen
22g-11/14	. . based on carbohydrates
22g-11/16	. Writing inks
22g-11/18	. . for use in ball-point writing instruments
22g-11/20	. . indelible
<b>22g-13/00</b>	<b>Pencil-leads; Crayons</b>
<b>22g-15/03</b>	<b>Adhesive materials for belts</b>
<b>22h</b>	<b>Resins, varnishes, lacquers, drying agents, polishes, tar and pitch containing mixtures, synthetic asphalts</b>
22h-1/01	Natural resins, general (39b-21), turpentine oil recovery
22h-1/02	Preparation of lacquer raw materials from resin mixtures and from other processed synthetic resins (production of synthetic resins 39c)
22h-2	Varnishes, drying agents (organometallic compounds 12o-26/03), stand oils and equipment for boiling of stand oils (factice 39b-11)
22h-3	Oil lacquers, lacquers prepared from natural or synthetic resins, asphalt lacquers, rubber lacquers, colouring of lacquers (rubber solutions 39b-5; paints 22g)
22h-4	Lacquers prepared from cellulose derivatives, cellulose ester emulsions for lacquers, combined lacquers, colouring of lacquers (lacquering processes 75c-5; leather lacquers 22g-5/01; paints 22g)
22h-5	Polishes, primers, surfacers, polishing processes (pore fillers 22g-6/03)
22h-6	Sealing wax (39b)
22h-7/01	Tar and pitch containing bituminous mixtures and bituminous materials from petroleum or similar products (synthetic asphalts 80b-25; plastics 39b-24)
22h-7/02	Melting kettles for asphalt, tar or pitch (tar boilers, only for road making 19c-11, 19c-19/08)
22h-8	Brewer's pitch
<b>22h1</b>	<b>(IPC: C09F) Natural resins; French polish; Drying-oils; Driers, i.e. siccatives; Turpentine</b>
<b>22h1-1/00</b>	<b>Obtaining, purification, or chemical modification of natural resins, e.g. oleo-resins</b>
22h1-1/02	. Purification
22h1-1/04	. Chemical modification, e.g. esterification (resin soaps 23e)
<b>22h1-3/00</b>	<b>Obtaining spirits of turpentine</b>
22h1-3/02	. as a by-product in the paper-pulping process
<b>22h1-5/00</b>	<b>Obtaining drying-oils</b> (preparation of synthetic oils by polymerisation or copolymerisation 39b4, by polycondensation 39b5)
22h1-5/02	. from natural sources
22h1-5/04	. . from cashew nuts
22h1-5/06	. by dehydration of hydroxylated fatty acids or oils
22h1-5/08	. by esterification of fatty acids
22h1-5/10	. Refining
22h1-5/12	. . by distillation

<b>22h1-7/00</b>	<b>Chemical modification of drying-oils</b> (modifying by copolymerisation 39b4; by polycondensation 39b5; factice 39b6)
22h1-7/02	. by oxidising
22h1-7/04	. by voltolising
22h1-7/06	. by polymerisation
22h1-7/08	. by isomerisation
22h1-7/10	. by re-esterification
22h1-7/12	. Apparatus therefor
<b>22h1-9/00</b>	<b>Compounds to be used as driers [siccatives]</b>
<b>22h1-11/00</b>	<b>Preparation of French polish</b>
<b>22h1-12</b>	<b>Equipment for boiling of stand oils</b>
<b>22h1-15</b>	<b>Polishing methods</b>
<b>22h1-17/02</b>	<b>Melting kettles for asphalt, tar or pitch</b> (tar boilers, only for road making 19c-11, 19c-19/08)
<b>22h2</b>	<b>(IPC: C09G) Polishing compositions other than French polish; Ski waxes</b>
<b>22h2-1/00</b>	<b>Polishing compositions</b> (French polish 22h1-11/00; detergents 23e)
22h2-1/02	. containing abrasives or grinding agents
22h2-1/04	. Aqueous dispersions (22h2-1/02 takes precedence)
22h2-1/06	. Other polishing compositions
22h2-1/08	. . based on wax
22h2-1/10	. . . based on mixtures of wax and natural or synthetic resin
22h2-1/12	. . . . mixtures of wax and silicon-containing polycondensates
22h2-1/14	. . based on non-waxy substances
22h2-1/16	. . . on natural or synthetic resins (39b5-47/00 takes precedence)
22h2-1/18	. . . on other substances
<b>22h2-3/00</b>	<b>Ski waxes</b>
<b>22i</b>	<b>Putties, glues and other adhesives, packing materials</b>
22i-1	Putties, packing materials, when prepared by chemical methods (otherwise 47f-22)
22i-2	Adhesives and adhesive foils, except starch-containing substances (the latter, see 89k-5)
22i-3	Pre-treatment of glue materials, e.g. leather de-tanning (28a-13), degreasing of bones, maceration
22i-4	Processes and apparatus for preparation of glue from glue materials, e.g. extractors and boilers
22i-5	Clarification and bleaching of glue
22i-6	Liquid glues
22i-7	Insoluble gelatines
22i-8	Shaping of glue and gelatine, also glue-cutting machines
22i-9	Glue-drying devices
<b>22i1</b>	<b>(IPC: C09H) Preparation of glue or gelatine</b>
<b>22i1-1/00</b>	<b>Pretreatment of collagen-containing raw materials for the manufacture of glue</b>
22i1-1/02	. of bones
22i1-1/04	. of hides, hoofs, or leather scrap (recovery of tanning agents 28a)
<b>22i1-3/00</b>	<b>Isolation of glue or gelatine from raw materials, e.g. by extracting, by heating</b> (gelatine for foodstuffs 53i)
22i1-3/02	. Purification of solutions of gelatine
<b>22i1-5/00</b>	<b>Stabilisation of solutions of glue or gelatine</b>

**22i1-7/00 Preparation of water-insoluble gelatine****22i1-9/00 Drying of glue or gelatine**

- 22i1-9/02 . in the form of foils
- 22i1-9/04 . in the form of granules, e.g. beads

**22i1-11/00 Adhesives based on glue or gelatine****22i2 (IPC: C09J) The use of materials other than glue as adhesives; Adhesive processes in general, non-mechanic part****Note:**

**Macromolecular adhesive substances or compositions based essentially thereon are always classified as the substance or composition in 39b, but the use of substances or compositions for adhesive purposes is classified here.**

**22i2-1/00 Adhesives, with inorganic adhesive constituents**

- 22i2-1/02 . with water-soluble alkali silicates

**22i2-3/00 Adhesives, other than glue, with organic adhesive constituents**

- 22i2-3/02 . with polysaccharides or their derivatives, e.g. mucilages
- 22i2-3/04 . . cellulose derivatives
- 22i2-3/06 . . starch; dextrine
- 22i2-3/08 . . gum arabic
- 22i2-3/10 . . alginates
- 22i2-3/12 . with latex or natural or synthetic rubber
- 22i2-3/14 . with macromolecular polymerisation products
- 22i2-3/16 . with macromolecular polycondensates
- 22i2-3/18 . with proteins (glue 22i1)
- 22i2-3/20 . . animal proteins
- 22i2-3/22 . . . keratin
- 22i2-3/24 . . . casein, blood or blood albumen
- 22i2-3/26 . with natural gums, waxes, or resins (gum arabic 22i2-3/08)
- 22i2-3/28 . with lignin
- 22i2-3/30 . with bitumen, tar, asphalt

**22i2-5/00 Adhesive processes in general; Adhesive processes not provided for elsewhere (devices for applying glue to surfaces to be joined 38e)**

- 22i2-5/02 . involving pretreatment of the surfaces to be joined
- 22i2-5/04 . separate application of adhesive ingredients to the different surfaces to be joined
- 22i2-5/06 . involving heating of the applied adhesive
- 22i2-5/08 . using foamed adhesives
- 22i2-5/10 . Joining materials by welding overlapping edges with an insertion of plastic material

**22i2-7/00 Adhesive materials in the form of films or foils**

- 22i2-7/02 . on carriers
- 22i2-7/04 . . on paper or textile fabric (adhesive plasters 30h-9/05)

**22k (IPC: C09K) Miscellaneous compositions; Miscellaneous applications of materials****Note:**

**This subclass covers compositions which are not specifically provided for elsewhere. It also covers the use of materials or compositions in a process, when that process is not specifically provided for elsewhere.**

**22k-1/00 Luminescent and tenebrescent materials**

- 22k-1/02 . organic
- 22k-1/04 . based on inorganic materials
- 22k-1/06 . . halides
- 22k-1/08 . . oxyhalides
- 22k-1/10 . . oxides



22k-1/12	. . sulphides
22k-1/14	. . oxysulphides
22k-1/16	. . selenides
22k-1/18	. . tellurides
22k-1/20	. . two or more of sulphides, selenides, tellurides in a mixture
22k-1/22	. . sulphates
22k-1/24	. . chromates
22k-1/26	. . molybdates
22k-1/28	. . tungstates
22k-1/30	. . uranates
22k-1/32	. . nitrides; nitrates
22k-1/34	. . phosphides
22k-1/36	. . phosphates
22k-1/38	. . arsenates
22k-1/40	. . antimonates
22k-1/42	. . bismuthates
22k-1/44	. . vanadates
22k-1/46	. . niobates
22k-1/48	. . tantalates
22k-1/50	. . carbides; carbonates
22k-1/52	. . silicides; germanides
22k-1/54	. . silicates; germanates
22k-1/56	. . stannates
22k-1/58	. . plumbates
22k-1/60	. . titanates
22k-1/62	. . zirconates
22k-1/64	. . borides
22k-1/66	. . borates
22k-1/68	. . aluminates
<b>22k-3/10</b>	<b>Materials for sealing or packing joints or covers</b>
<b>22k-3/18</b>	<b>Compositions for application to surface to minimise adherence of ice, mist or water thereto</b>