1 MISCELLANEOUS (E.G., ARTIFICIAL SNOW)
2 FIRE-EXTINGUISHING
3 .Foam or gas phase containing
4 .Gas generative, chemically
5 ..Dry, combustion type
6 ..Low temperature chemically
7 ...interreactive
8 ..Foam-stabilizant or colloid-
9 stabilizant containing
10 .Carbonates or ammonium salts
11 containing or pyrolytic
12 .Volatile or gas charged liquids
13 containing
14 .Foam-stabilizant or colloid-
15 stabilizant containing

FIRE RETARDING
16 .Having disparate function
17 .For living matter
18 .Material physically quantified
19 .Containing gas
20 .Intumescent
21 .For wood or cellulosic material
22 other than textile
23 .For textile (i.e., woven
24 material)
25 .For solid synthetic polymer and
26 reactants thereof
27 .Dispersion or colloidal system
28 ..For dispersion or colloidal
29 system

Class 507 is an integral part of this Class (Class 252), as shown by the position of this box, and follows the schedule hierarchy of this Class, retaining all pertinent definitions and Class lines of this class.

8.81 TEXTILE PROCESSING AID COMPOSITIONS, OR PROCESSES OF PREPARING (E.G., LUBRICANTS OR ANTISTATIC AGENTS FOR FIBER, YARN, FABRIC, ETC.)
8.82 .For tire cord yarn, elastomeric filaments, or biologically innocuous or absorbable fibers (e.g., textiles used in food packaging, absorbable surgical sutures, etc.)
8.83 .Sizing agents (e.g., for weaving yarn, etc.)
8.84 .For textile materials consisting wholly or in part of noncellulosic synthetic fibers (e.g., spin finish for nylon, polyester, acrylic, etc., fibers; lubricants for blends thereof with diverse fibers, etc.)
8.85 .For textile materials consisting wholly or in part of animal hair fibers (e.g., wool, etc.)
8.86 .For textile materials consisting wholly or in part of silk or cellulose-based fibers (e.g., cotton; artificial silk, such as rayon, cellulose acetate, etc., or blends thereof; silk soaking compositions; etc.)
8.91 COMPOSITIONS FOR ENHANCING THE APPEARANCE OF CONSUMER TEXTILE GOODS (OTHER THAN CLEANING COMPOSITIONS OR AUXILIARY COMPOSITIONS FOR CLEANING), OR PROCESSES OF PREPARING (E.G., ANTISTATIC OR WRINKLE-REMOVING SPRAY FOR GARMENTS, ETC.)
67 VAPORIZATION, OR EXPANSION, REFRIGERATION OR HEAT OR ENERGY EXCHANGE
68 .With lubricants, or warning, stabilizing or anti-corrosion agents or persistent gases
69 .With low-volatile solvent or absorbent

Class 508 is an integral part of this Class (Class 252), as shown by the position of this box, and follows the schedule hierarchy of this Class, retaining all pertinent definitions and Class lines of this class.
60 PHYSICAL SEPARATION AGENTS
61 .Froth-flotation or differential adherence
62 HEAT OR SOUND INSULATING
62.2 ELECTROLYTES FOR ELECTRICAL DEVICES (E.G., RECTIFIER, CONDENSER)
62.3 R BARRIER LAYER DEVICE COMPOSITIONS
62.3 T .Thermolectric
62.3 E .Free element containing
62.3 S .Selenium or tellurium
62.3 GA .Group III element containing binary compound; e.g., Ga, As
62.3 ZB .Groups II and V elements containing binary compound; e.g., zinc, bismuth
62.3 ZT .Groups II and VI elements containing binary compound; e.g., Zn, Te
62.3 V .Group VI element-containing
62.3 BT .Containing Group IV element and oxygen; e.g., barium, titanium III oxide
62.3 C .Binary alloy or carbide; e.g., Al, In, LiC
62.51 R MAGNETIC
62.52 .Flaw detection or magnetic clutch
62.53 .With wax, bitumen, resin, or gum
62.54 .Synthetic resin
62.55 .Free metal or alloy containing
62.56 .Iron-oxygen compound containing
62.57 .With scandium, yttrium, gallium, rare earth, or actinide
62.58 .With boron, aluminum, thallium, or indium
62.59 .With titanium, zirconium, silicon, hafnium, germanium, or tin
62.6 .With Group I metal
62.61 .Lithium
62.62 .With Group II metal or lead
62.63 .Calcium, barium, strontium, or lead
62.64 .Magnesium
62.51 C .Chromium or chromium compound containing
62.9 R PIEZOELECTRIC
62.9 PZ .Lead, zirconium, titanium or compound thereof containing

DEFINED LIQUID DIELECTRIC
DISPERSED IN DEFINED WEB OR SHEET

FLUENT DIELECTRIC

. Metal- or insoluble component-containing; e.g., slurry, grease, etc.
. Si-containing
. B-, P-, S-, Se-, or Te-containing
. O in N compound
. Nitro or nitroso compound
. O-containing
. Carboxylic acid ester
. Halogen-containing

FROST-PREVENTING, ICE-THAWING, THERMOSTATIC, THERMOPHORIC, OR CRYOGENIC

HEAT-EXCHANGE, LOW-FREEZING OR POUR POINT, OR HIGH BOILING COMPOSITIONS
. With leak-stopping agents
. Organic components
. Metal compounds or inorganic components (except water)
. Organic compounds of nonmetals other than C, H, and O
. Carboxylic organic compounds containing
. Organic compounds of nonmetals other than C, H, O, and N
. Organic Si containing compounds
. Organic P containing compounds

ETCHING OR BRIGHTENING COMPOSITIONS
. Inorganic acid containing
. Fluorine compound containing
. With organic material
. Alkali metal hydroxide containing
88.1 DUST SUPPRESSANTS FOR BULK MATERIALS, OR PROCESSES OF PREPARING (E.G., FOR CONSOLIDATING DUST IN COAL MINES, CONTROLLING SOIL EROSION, ETC.)

88.2 COMPOSITIONS FOR COATING OR IMPREGNATING A SUBSTRATE USED FOR COLLECTING FINE PARTICLES BY ADHERENCE, OR PROCESSES OF PREPARING (E.G., FOR IMPREGNATING DUSTING CLOTHS, DUST FILTERS, ETC.)

Class 510 is an integral part of this Class (Class 252), as shown by the position of this box, and follows the schedule hierarchy of this Class, retaining all pertinent definitions and Class lines of this class.

175 WATER-SOFTENING OR PURIFYING OR SCALE-INHIBITING AGENTS

176 .Packages or heterogeneous arrangements

178 .Deoxidant or free-metal containing

179 .Water-insoluble base-exchange agent containing

180 .Plant or organic material containing

181 .With inorganic matter other than alkali-metal hydroxides and carbonates and water

181.1 GETTERS OR GAS OR VAPOR GENERATING MATERIALS FOR ELECTRIC LAMPS, ELECTRIC SPACE DISCHARGE DEVICES, AND SIMILAR DEVICES

181.2 .Plural getter and/or gas or vapor generating materials

181.3 .Reactive compositions

181.4 .Containing magnesium, alkali-metal and alkaline-earth metal, or compound thereof

181.5 .Gaseous getters

181.6 .Metal or metal compound containing

181.7 .Magnesium, alkali-metal, or alkaline-earth metal

194 HUMIDOSTATIC, WATER REMOVIVE, BINDIVE, OR EMISSIVE

478 X-RAY OR NEUTRON SHIELD

500 ELECTRICALLY CONDUCTIVE OR EMISSIVE COMPOSITIONS

501.1 .Light sensitive

502 .Elemental carbon containing

503 .With free metal

504 .With carbide

505 .With radioactive material

506 .With metal compound

507 .Titanium or zirconium compound

508 .Aluminum compound

509 .Magnesium, alkaline earth metal, or rare earth metal compound

510 .With organic component

511 .Resin, rubber, or derivative thereof containing

512 .Free metal containing

513 .Iron group metal (iron, cobalt, nickel)

514 .Noble metal (gold, silver, ruthenium, rhodium, palladium, osmium, iridium, platinum)

515 .Tungsten

516 .Carbide containing

517 .Radioactive material containing

518.1 .Metal compound containing

519.1 .Compound viewed as composition

519.12 .Titanium containing

519.13 .Bismuth, ruthenium, or iridium containing

519.14 .Sulfur, tellurium, selenium, nitrogen, phosphorus, or boron containing

519.15 .Four diverse metals containing

519.2 .Organometallic (e.g., soap, complex, etc.)

519.21 .With additional organic compound

Class 502 is an integral part of this Class (Class 252), as shown by the position of this box, and follows the schedule hierarchy of this Class, retaining all pertinent definitions and Class lines of this class.
CLASS 252 COMPOSITIONS

519.3  ..With organic compound
519.31  ...The organic compound contains silicon
519.32  ...The organic compound is a natural resin, protein, lignin, carbohydrate, or derivative thereof
519.33  ...The organic compound is a polymer
519.34  ....The metal compound contains halogen, sulfur, selenium, phosphorus, arsenic, boron, or nitrogen
519.4  ..Sulfur, selenium, or tellurium containing
519.5  ..Zinc compound
519.51  ...Additional diverse metal containing
519.52  ...With boron compound
519.53  ...With halogen compound
519.54  ...Silicon containing or with compound of bismuth or silicon
520.1  ..Tin compound
520.2  ..Titanium or zirconium compound
520.21  ...Additional diverse metal containing
520.22  ...Boron, silicon, phosphorus, nitrogen, hydrogen, carbon, or halogen containing
520.3  ..Silver, gold, or platinum compound
520.4  ..Vanadium compound
520.5  ..Tungsten or yttrium compound
521.1  ..Rare earth metal compound
521.2  ..Iron, cobalt, or nickel compound
521.3  ..Silicon containing or with silicon compound
521.4  ..Boron containing or with boron compound
521.5  ..Halogen, carbon, phosphorus, or nitrogen containing
521.6  ..With nonmetal compound containing halogen, nitrogen, phosphorus, or sulfur

522  INCANDESCENT MANTLE COMPOSITIONS

492  LIQUID CRYSTAL COMPOSITIONS

299.01  .Containing pleochroic dye
299.1  .Containing dopant salt
299.3  .Containing charge-transfer agents
299.4  .Containing nonchiral aligning agents
299.5  .Containing nonchiral additive having no specified mesophase

299.6  .Containing nonsteryl liquid crystalline compound of specified structure
299.61  ..Including heterocyclic ring
299.62  ..Including fused or bridged rings
299.63  ..Including fully saturated ring
299.64  ..Aryl ester of aryl acid having three benzene rings
299.65  ...Benzene rings linked by direct bond
299.66  ...Benzene rings linked by direct bond
299.67  ..Phenyl benzoate derivative
299.68  ..Including benzene rings bonded through azo, azoxy, or azomethine linkage
299.7  ..Cholesteric liquid crystal composition containing a sterol derivative

583  LIGHT TRANSMISSION MODIFYING COMPOSITIONS

625  RADIOACTIVE COMPOSITIONS

301.16  ORGANIC LUMINESCENT MATERIAL CONTAINING COMPOSITIONS

November 2010
301.19 .Inspection penetrant compositions
301.21 .Optical brightening compositions
301.22 ...Heterocyclic compounds having an intercyclic acyclic methine linkage
301.23 ...Triazines
301.24 ...Thiazoles or oxazoles
301.25 ...Azine containing
301.26 ...Six-membered ring having one hetero-N-atom
301.27 ...Azole containing
301.28 ...Thiazoles or oxazoles
301.29 ...Tri- or tetrazoles
301.31 ...Five-membered ring having four carbon atoms and one nitrogen atom
301.32 ...Hetero-S-atom or hetero-O-atom containing
301.33 ...With inorganic luminescent material
301.34 .Natural resin, cellulose, or derivatives containing
301.35 .Synthetic resin containing
301.36 INORGANIC LUMINESCENT COMPOSITIONS WITH ORGANIC NONLUMINESCENT MATERIAL
301.4 R INORGANIC LUMINESCENT COMPOSITIONS
301.5 .Tungsten containing
301.6 R .Zinc or cadmium containing
301.6 S .Sulfur containing
301.6 P .Phosphorus containing
301.6 F .Group IV element containing
301.4 S .Sulfur containing
301.4 P .Phosphorus containing
301.4 F .Group IV element containing
301.4 H .Compositions containing halogen; e.g., halides and oxyhalides

700 CHEMILUMINESCENT
182.1 HAVING UTILITY AS A REACTIVE MATERIAL IN AN ELECTROCHEMICAL CELL; E.G., BATTERY, ETC.
184 ABSORPTIVE, OR BINDIVE, AND CHEMICALLY YIELDIVE (E.G., ION EXCHANGER)
185 PLUMBIFEROUS SULPHUR BINDANT OR MODIFANT CONTAINING
186.1 OXIDATIVE BLEACHANT, OXIDANT CONTAINING, OR GENERATIVE

186.2 .Composition containing two or more solid materials with defined physical dimensions; e.g., surface areas, volumes, etc., or process of producing said composition
186.21 .Plural oxidants
186.22 .Contains plural peroxides
186.23 .Contains elemental material devoid of water
186.25 .Composition containing a stabilizer or a product in the form of a surface-modified, impregnated, encapsulated, or surface-coated article; or process of producing said composition
186.26 .Organic peroxide
186.27 .Inorganic peroxide
186.28 .Contains hydrogen peroxide
186.29 .With organic material
186.3 .Contains perborate
186.31 .With organic material
186.32 .Contains Group IA metal peroxide
186.33 .Contains Group VIIIB or Group VIII metal or compound thereof
186.34 .Contains organohalogen compound as oxidant
186.35 .Chloroisocyanurate
186.36 .Contains free halogen or oxy-halogen acid type
186.37 .Contains alkaline earth metal
186.38 .Contains activator admixed with inorganic peroxide
186.39 .Contains heterocyclic compound
186.4 .Oxygen heterocycle
186.41 .Hydrogen peroxide
186.42 .Contains organic peroxide
186.43 .Contains inorganic peroxide
186.44 .Contains inorganic nitrogen containing compound
187.1 .Free halogen or oxy-halogen acid type
187.2 .Oxidant contains halogen other than chlorine
187.21 .Chlorine dioxide or monoxide
187.22 .With elemental chlorine
187.23 .Chlorite
187.24 .Hypochlorite
187.25 .Alkali metal hypochlorite
187.26 .Sodium
187.27 .Alkaline earth metal hypochlorite
187.28  Calcium
187.29  With alkali metal compound
187.3   With alkaline earth metal compound
187.31  Chlorate or perchlorate
187.32  Oxidant contains N-Cl bond
187.34  Chloroisocyanurate
188.1   REDUCTIVE BLEACHANT, DEOXIDANT, REDUCTANT, OR GENERATIVE
188.2   Sulfur containing reductant, bleachant, deoxidant, or generative
188.21  .Sulfite
188.22  Hydrosulfite (dithionite)
188.23  .With organic additive
188.24  .Contains nitrogen
188.25  .Hydrogen generating
188.26  .Hydrate containing
188.27  .Contains Al-H bond
188.28  .Deoxidant or oxygen scavenging
189     CO, S, NEGATIVE ELEMENT, OR ACID, BINDANT CONTAINING
190     With absorbents
191     .Basis-iron containing
192     .Alkali-metal or alkali-metal compound containing
193     AMMONIA, ALKALI OR BASE, BINDANT CONTAINING
363.5  SOLIDS WITH SOLUTION OR DISPERSANT AIDS

Class 516 is an integral part of this
Class (Class 252), as shown by the posi-
tion of this box, and follows the schedule
hierarchy of this Class, retaining all
pertinent definitions and Class lines of
this class.

364     SOLVENTS
365     ANTI-INGESTIBLE OR DENATURED
366     .Alcohol type
367.1   SOAPS (I.E., ALKALI-METAL SALTS
       OF WATER-INSOLUBLE FATTY ACIDS
       OR OF ROSIN ACIDS)
372     GASEOUS COMPOSITIONS
373     .Carbon-oxide and hydrogen containing
374     .Nitrogen and hydrogen containing
375     .Nitrogen from air or elementary nitrogen only and hydrogen from compounds
376     .Hydrogen from hydrocarbons
377     ..From elementary nitrogen and hydrogen only or purification
378 R   EXFOLIATED OR INTUMESCED
378 P   .Perlite
380     PRESERVATIVE AGENTS
381     .Anti-caking, separative or protective coatings or zones
382     .Foams, liquids, or fluids
383     .Organic and inorganic matter containing
384     .Organic compound containing
385     .Inorganic compound or element containing
387     .Anti-corrosion
388     .Organic compound containing
389.1   .Component inorganic or organic comprising element other than C,H,O,N,S, and halogen
389.2   .Phosphorus containing
389.21  .Nitrogen and/or sulfur in phosphorus compound
389.22  .Pentavalent P, except H(n+2)PnO(3n+1)
389.23  .Pentavalent P, except H(n+2)PnO(3n+1)
389.24  .Trivalent P (e.g., phosphorus acid, phosphites, etc.)
389.3   .Silicon containing
389.31  .Organo silicon
389.32  .Nitrogen containing (e.g., amino, etc.)
389.4   .Boron containing
389.41  .Organo boron
389.5   .Chromium containing
389.51  .Lead containing
389.52  .Zinc or aluminium containing
389.53  .Nickel, iron, cobalt, copper, manganese, mercury, or cadmium containing
389.54  .Molybdenum, arsenic, antimony, vanadium, bismuth, tungsten, selenium, or tellurium containing
389.61  .Group IIA metal containing
389.62  .Alkali metal or NH4+ containing
389.63  .Amine, amide, azo, or nitrogen-base radical containing
391     .Sulphur organic compound containing
392     .Oxygen organic compound containing

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<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>393</td>
<td>Phenol or quinone radical containing</td>
</tr>
<tr>
<td>394</td>
<td>Nitrogen organic compound containing</td>
</tr>
<tr>
<td>395</td>
<td>Sulphur organic compound containing</td>
</tr>
<tr>
<td>396</td>
<td>Oxygen organic compound containing</td>
</tr>
<tr>
<td>397</td>
<td>Anti-oxidants or chemical change inhibitors</td>
</tr>
<tr>
<td>398</td>
<td>Plant or animal matters of unknown compositions</td>
</tr>
<tr>
<td>399</td>
<td>Organic compound containing</td>
</tr>
<tr>
<td>400.1</td>
<td>Component inorganic or organic comprising element other than C, H, O, N, S, and halogen</td>
</tr>
<tr>
<td>400.2</td>
<td>Phosphorus containing</td>
</tr>
<tr>
<td>400.21</td>
<td>Nitrogen or sulfur in phosphorus compound</td>
</tr>
<tr>
<td>400.22</td>
<td>Pentavalent P, but not fully oxygenated</td>
</tr>
<tr>
<td>400.23</td>
<td>Pentavalent P, but not fully oxygenated</td>
</tr>
<tr>
<td>400.24</td>
<td>Trivalent P (e.g., phosphorous acid, phosphites, etc.)</td>
</tr>
<tr>
<td>400.3</td>
<td>Silicon containing</td>
</tr>
<tr>
<td>400.31</td>
<td>Organo silicon</td>
</tr>
<tr>
<td>400.4</td>
<td>Boron containing</td>
</tr>
<tr>
<td>400.41</td>
<td>Organo boron</td>
</tr>
<tr>
<td>400.5</td>
<td>Chromium containing</td>
</tr>
<tr>
<td>400.51</td>
<td>Lead containing</td>
</tr>
<tr>
<td>400.52</td>
<td>Zinc or aluminium containing</td>
</tr>
<tr>
<td>400.53</td>
<td>Nickel, iron, cobalt, copper, manganese, mercury, or cadmium containing</td>
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<tr>
<td>400.54</td>
<td>Molybdenum, arsenic, antimony, vanadium, bismuth, tungsten, selenium, or tellurium containing</td>
</tr>
<tr>
<td>400.61</td>
<td>Group IIA metal containing</td>
</tr>
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<td>400.62</td>
<td>Alkali metal or NH4+ containing</td>
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<td>401</td>
<td>Amine, amide, azo, or nitrogen-base radical containing</td>
</tr>
<tr>
<td>402</td>
<td>Sulphur organic compound containing</td>
</tr>
<tr>
<td>403</td>
<td>Oxygen organic compound containing</td>
</tr>
<tr>
<td>404</td>
<td>Phenol or quinone radical containing</td>
</tr>
<tr>
<td>405</td>
<td>Nitrogen organic compound containing</td>
</tr>
<tr>
<td>406</td>
<td>Sulphur organic compound containing</td>
</tr>
<tr>
<td>407</td>
<td>Oxygen organic compound containing</td>
</tr>
</tbody>
</table>

**NONREACTIVE ANALYTICAL, TESTING, OR INDICATING COMPOSITIONS**

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
</table>
| 600   | Compositions containing a single chemical reactant or plural noninteractive chemical reactants; i.e., not vis-a-vis reactant containing | **RADIATION SENSITIVE**
| 182.12 | Organic reactant | **182.13** | For subsequent solid polymer treatment or preparation; e.g., crosslinking, grafting, curing, hardening, vulcanizing, etc. |
| 182.14 | Reactant contains element other than C, H, O, or N |
| 182.15 | Halogen |
| 182.16 | Bromine or iodine |
| 182.17 | Sulfur |
| 182.18 | Reactant contains ethylenic group |
| 182.19 | Cyclic anhydride moiety |
| 182.2 | Reactant contains isocyanate (-N=C=O) or blocked isocyanate group |
| 182.21 | Two or more reactants containing isocyanate or blocked isocyanate groups |
| 182.22 | Urethane (-N-C(=O)-O-C-) group |
| 182.23 | Reactant contains oxygen |
| 182.24 | Reactant contains plural hydroxyl groups |
| 182.25 | Three or more reactants containing plural hydroxyl groups |
| 182.26 | Reactant contains nitrogen |
| 182.27 | Reactant contains ether linkage |
| 182.28 | Reactant contains carboxylic acid group or derivative thereof |
| 182.29 | With stabilizer or inhibitor |
| 182.3 | Reactant contains phosphorus, silicon, or sulfur atom, or contains metal-to-carbon bond |
| 182.31 | Reactant contains phenolic, phenolic ether, or inorganic phenolate group |
| 182.32 | Inorganic reactant other than sulfur containing |
| 182.33 | Reactant contains heavy metal |
182.34.. Reactant contains nitrogen
182.35.. Reactant contains aluminum or phosphorus
183.11 CHEMICALLY INTERACTIVE REACTANTS (VIS-A-VIS)
183.12 ..With stabilizer or inhibitor
183.13 ..Organic reactant admixed with inorganic reactant
183.14 ..Inorganic reagents only
183.15 ..Calcium carbide precursors
183.16 ..Contains carbonate or bicarbonate

FOR 104.. Ether group containing (252/8.9)
FOR 113 SWEEPING OR DUST OR PARTICLE ADHERENT (252/88)
FOR 247 SOAPS (ALKALI-METAL SALTS OF WATER-INSOLUBLE FATTY OR ROSIN ACIDS) (252/367)
FOR 248.. Products (252/368)
FOR 249 . Including saponification (252/369)
FOR 250 . With subsequent operations (252/370)
FOR 251 . Metal compound containing (252/518)
FOR 252 .. Iron group compound (252/519)
FOR 253 .. Titanium or zirconium compound (252/520)
FOR 254 .. Magnesium, alkaline earth metal, or rare earth metal compound (252/521)

DIGESTS
DIG 18 ACTIVATION-PLATINUM

FOREIGN ART COLLECTIONS
FOR 000 CLASS-RELATED FOREIGN DOCUMENTS
Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

FOR 100 TEXTILE TREATING (252/8.6)
FOR 101 . Organic sulphonyl compound containing (252/8.7)
FOR 102 .. Organic amine or amide containing (252/8.75)
FOR 103 . Organic amine or amide containing (252/8.8)