

CLASS 510 CLEANING COMPOSITIONS FOR SOLID SURFACES, AUXILIARY COM- 510 - 1
 POSITIONS THEREFOR, OR PROCESSES OF PREPARING THE COMPOSITIONS

This Class 510 is considered to be an integral part of Class 252 (see the Class 252 schedule for the position of this Class in schedule hierarchy). This Class retains all pertinent definitions and class lines of Class 252.		115	...Water-soluble peroxy, silicone resin, or polyvinyl pyrrolidone component
		116	..For removable dentures
		117	...Gas generating (e.g., effervescent, etc.)
		118	..Nail polish remover
		119	..For human scalp hair, scalp, or wig (e.g., shampoo, etc.)
100	WITH SAFETY OR INDICATOR FEATURE	120	...Package, solid, or gas-propelled composition (e.g., powder, aerosol container, etc.)
101	WITH OXYGEN, HALOGEN, SULFUR, OR NITROGEN CONTAINING OR ETHYLENICALLY UNSATURATED COMPONENT WHICH IS A FRAGRANCE OR AROMA ENHANCER (E.G., PERFUME, ORGANOLEPTIC MATERIAL, ETC.)	121	...Steroid or carbohydrate gum component (e.g., lanolin, guar gum, etc.)
102	..Ring in the component (e.g., benzene, 5-membered ring, etc.)	122	...Silicon, boron, or phosphorus containing organic component
103	..Heterocyclic ring	123	...Amine oxide, quaternary, or zwitterion nitrogen component (e.g., betaine, sultaine, etc.)
104	..Polycyclo ring system (e.g., camphor, cedar oil, borneol, etc.)	124	...With diverse amine oxide, quaternary, or zwitterion nitrogen component
105	...Acyclic carbonyl (-C(=O)-) attached directly or indirectly to the system by nonionic bonding	125	...With organic sulfoxy containing component (e.g., sulfate, sulfonate, etc.)
106	..Six-membered alicyclic ring (e.g., menthol, etc.)	126	...Carboxamido containing component having an alkanol, carboxyl, or alkylamino substituent, or salt thereof
107	..Carboxylic or thiocarboxylic ester function in the component	127	...Organic sulfoxy containing component (e.g., sulfate, sulfonate, etc.)
108	CLEANING COMPOSITIONS OR PROCESSES OF PREPARING (E.G., SODIUM BISULFATE COMPONENT, ETC.)	128	...With a urea or with polyoxyalkylene containing component devoid of covalently bonded anionic substituents
109	..For cleaning a specific substrate or removing a specific contaminant (e.g., for smoker's pipe, etc.)	129	...Soap component
110	..For removing radioactive or toxic chemical contaminant (e.g., chemical warfare agent, PCBs, etc.)	130	..For human skin
111	..For food product (e.g., shell egg, etc.)	131	...With halogen, nitrogen, oxygen, or phosphorus containing antiseptic, biocidal, or deodorizing component
112	..For contact lenses	132	...Surgical scrub
113	...Solid particulate component	133	...Solid, shaped article (e.g., bar, etc.)
114	...Enzyme component of specific activity or source (e.g., protease; of bacterial origin, etc.)	134	...For removing adhesively attached material (e.g., bandage, etc.)
		135	...High-foaming bath composition (e.g., bubble bath, etc.)

136	...Makeup remover	159	...Liquid composition
137	...For a specific area of the body (e.g., face, ears, etc.)	160	..For live animal (nonhuman)
138	....For hands	161	..For medical or dental instruments or equipment (e.g., electronic hematological analyzer, etc.)
139	...With particulate scrubbing or abrasive component (e.g., powdered pumice, etc.)	162	..For semipermeable membrane or ion-exchange resin or equipment
140	...With removable package, casing, receptacle, or in aerosol dispenser (e.g., cake wrapper, casing gradually removable throughout use, etc.)	163	..For optical mirror, lens, or mold therefor (e.g., eyeglasses, camera lens, etc.)
141	...Solid, shaped article (e.g., bar, leaf, tablet, etc.)	164	...For synthetic resin lens or mold therefor
142	....With nonremovable casing or coating integrally attached to the article exterior (e.g., ornamental design, encapsulating layer, etc.)	165	..For computer memory disk
143	....With solid integral noncleanser core or insert (e.g., layer, matrix, etc.)	166	..For electrophotographic equipment or parts thereof (e.g., xerographic plate, hot roll fuser, etc.)
144	.....Hollow or buoyant core or insert (e.g., air-holding sponge, etc.)	167	..For magnetic tape or disk, recorder/playback head, or drive assembly therefor
145	....Floating, elastic, or malleable	168	..For sound record (e.g., recording for phonograph, CD player, etc.)
146	....Composite (e.g., having segments of different color, solubility, composition, etc.)	169	..For photographic film or processing equipment
147	....Transparent or translucent	170	..For ink recording or printing equipment, or mold therefor (e.g., ink jet recorder, etc.)
148	....Having discrete indentation or protuberance (e.g., embossed, etc.)	171	...For lithographic printing plate
149	.....For comminuting soap dispenser	172	...For silk printing screen
150	....Boron or phosphorus containing component	173	...For typewriter
151	....Carbohydrate component (e.g., cellulose, guar gum, etc.)	174	..For removing ink, pencil, or writing fluid markings (e.g., ball pen fluid, printer's or magnetic ink, etc.)
152	....Soap component	175	..For printed or integrated electrical circuit, or semiconductor device
153	.....With free higher fatty acid component	176	...For stripping photoresist material
154	.....With lime-soap dispersant	177	...Azeotropic or azeotrope-like composition (e.g., for defluxing, etc.)
155	....Plural surfactant components (e.g., organic sulfate and sulfonate, sulfonate and amine oxide, etc.)	178	...Nitrogen-containing component
156	....Organic sulfoxy containing component (e.g., sulfate, sulfonate, etc.)	179	..For laboratory or pharmaceutical glassware
157	...For waterless cleaning	180	..For plate glass (e.g., window, mirror, windshield, etc.)
158	...Cream, paste, or gel	181	...Aqueous liquid composition
		182	...With aliphatic alcohol, ether, or ketone component

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 POSITIONS THEREFOR, OR PROCESSES OF PREPARING THE COMPOSITIONS

183	..For hydraulic power transmission system (e.g., automobile brake system, etc.)	204	...Halogenated hydrocarbon component
184	..For engine cooling system	205	...With wax component
185	..For interior of engine or parts thereof (e.g., crankcase, etc.)	206	...Aqueous component
186	...Inorganic component (other than water)	207	...With metal hydroxide or wax component
187	...Phenol, cyclic carbonate, or soap component	208	...Wax component
188	..For hydrocarbon or synthetic resin processing or conveying equipment (e.g., for oil or gas pipeline, fractionating equipment, curable resin fabrication tools, etc.)	209	...With inorganic component
189	..For vehicle wheel, bumper, or tire	210	...With carboxylic acid or phenolic component, or salt thereof (e.g., carbolic acid, metal phenolate, etc.)
190	..For firearm bore	211	...With carboxylic acid ester component (e.g., polymerized vegetable oil, etc.)
191	..For toilet bowl or urinal	212	...Amine, carboxamide, or metal hydroxide or alkoxide component (e.g., pyrrolidone, pyridine, etc.)
192	...Flush dispensed	213	...Liquid hydrocarbon component
193	...Synthetic resin or carbohydrate gum component (e.g., polyvinyl alcohol, poly(ethylene oxide) resin, guar gum, etc.)	214	..For uncarpeted floor
194	..For mechanical garbage disposal unit or dishwasher interior	215	...For absorbing liquid or greasy matter (e.g., for removing oil, aqueous fluid, etc.)
195	..For household drain or sewer pipe	216	...Sweeping compound (i.e., for binding or suppressing dust during sweeping)
196	...Exothermic (e.g., containing free metal, such as Al, etc.)	217	...For no-wax floor covering
197	..For removing heat-degraded food residue from solid surface (e.g., oven interior, grill, cooking pot exterior, etc.)	218	..For equipment used in processing, handling, storing, or serving edible product (e.g., dairy or brewery equipment, household utensils, etc.)
198	...Gas-propelled composition or package	219	...For glass or synthetic resin equipment or container (e.g., bottle, jar, pipeline, etc., made of polycarbonate, etc.)
199	..For removing fungal or algal growth from a substrate (e.g., removing mold, mildew, algae, etc.)	220	...For use in automatic dishwasher
200	..For removing adhesively attached material or adhesive agent from a substrate (e.g., wallpaper, gummed label, etc.)	221	...Liquid, paste, or gel (e.g., slurry, etc.)
201	..For removing integral organic coating, sealant, or finish from a substrate (e.g., stripping paint, varnish, etc.)	222	....Wax or phosphorus or silicon containing organic component
202	...From metallic substrate	223	....Polycarboxylic acid component, or salt thereof
203	...Water-compatible concentrate or aqueous mixture thereof	224	...Solid, shaped article (e.g., tablet, briquette, pellet, etc.)
		225	....Alkali metal hydroxide component
		226	...Enzyme component of specific activity or source (e.g., protease, ethanol oxidase, of bacterial origin, etc.)

227	...With overglaze or glassware protection component (except alkali metal silicate)	244	..For nontextile synthetic resin, rubber, or fiberglass substrate (e.g., vinyl, etc.)
228	...Phosphorus, silicon, or sulfoxy containing organic component (e.g., sulfate, sulfonate, etc.)	245	..For bare metal surface (e.g., degreasing composition, etc.)
229	...Polycarboxylic acid component, or salt thereof	246	...For glassware mold
230	....The component is a polymer (e.g., polyacrylic acid salt, etc.)	247	...For descaling the inner surface of equipment which is in continuous contact with water (e.g., boiler scale removal; for water storage tank, conduit, etc.)
231	...Halogen-free inorganic phosphorus containing component	248	....Free element component (e.g., metal, carbon, sulfur, etc.)
232	....With inorganic silicon containing component	249	...Tannin, whole animal or plant material component, or crude extract thereof
233	.....With alkali metal hydroxide, carbonate, bicarbonate, or sesquicarbonate component	250	....With sugar, molasses, or starch component
234	...For in-place cleaning of stationary apparatus	251	....With vegetable oil, hydrocarbon, fat, or phenolic component (e.g., mineral oil, etc.)
235	...For manual dishwashing	252	....With alkali metal hydroxide, carbonate, or bicarbonate component
236	...Abrasive, protein, or organic phosphorus containing component	253	...Free organic or inorganic acid component
237	...Carboxamide, amine oxide, heterocyclic, quaternary, or zwitterion nitrogen-containing component	254	...For use on nonferrous surface (e.g., aluminum, copper, tin plate, etc.)
238	..For grouted tile, bathtub, or procelain or ceramic surface (e.g., ceramic bathroom tile, etc.)	255	...With corrosion inhibiting or solvent stabilizing component
239	..For enameled surface or acoustic material	256	...With halogenated hydrocarbon, abrasive, coating, or polishing component
240	..For stonework, brickwork, or cementitious material (e.g., marble, granite, concrete, alabaster, etc.)	257	...With inorganic fluorine containing component (e.g., HF, etc.)
241	..For removing foreign matter from surface carrying a protective or ornamental coating, finish, or adhesively attached covering (e.g., from painted or papered wall, automobile body, etc.)	258	...With corrosion or embrittlement inhibiting or solvent stabilizing component (e.g., pickling bath, etc.)
242	...Liquid composition (e.g., emulsion, etc.)	259	...Quaternary ammonium or heavy metal in the component (e.g., Zn, Sn, etc.)
243	..For clear or translucent plastic surface (e.g., Plexiglas acrylic, Lexan polycarbonate, etc.)	260	...Organic sulfonium group in the component
		261	...Organic divalent sulfur containing substituent in the component (e.g., sulfide, mercaptan, etc.)
		262Heterocyclic ring in the component

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263Nitrogen containing substituent in the component (e.g., thiourea, etc.)	285	...Dry cleaning (e.g., using nonaqueous fluid, etc.)
264	....Organic nitrogen containing substituent in the component	286	...With halogen, oxygen, or nitrogen containing chemical bleach, oxidant, antiseptic, or biocidal component
265	.....Heterocyclic nitrogen in the component	287	...With metal corrosion inhibiting or textile treating component (other than mere cleaning) (e.g., antistatic or fabric softening, wrinkle reducing, optical brightener, lusterizing, etc., component)
266	.....Plural inhibitor or stabilizer components	288	...Organic phosphorus containing component
267	....Ethylenically or acetylenically unsaturated substituent in the component (e.g., propargyl alcohol, ester, etc.)	289	...Polyoxyalkylene containing surfactant devoid of covalently bonded anionic substituents
268	...Abrasive or polishing component	290	....Sulfur-containing anionically substituted surfactant
269	...Inorganic acid component (e.g., sodium bisulfate, etc.)	291	...Aqueous component
270	....With heavy metal containing component	292	...For delicate material (e.g., wool, silk, fine fabric, etc.)
271	....With hydrocarbon or halogen or oxygen containing organic solvent (e.g., alcohol, ester, etc.)	293	..Multiple-dose article (e.g., detergent-containing plastic bottle, etc.)
272	...Alkali metal hydroxide component	294	....Solid, shaped article (e.g., bar, etc.)
273	...Halogenated hydrocarbon component (e.g., degreasing composition, etc.)	295	...Dosing unit (e.g., detergent-impregnated water-insoluble substrate of fabric, tissue, etc.)
274	...Organic sulfoxy containing component	296	....All or part of the unit enclosure is made of water-sensitive material (e.g., water-soluble or dispersible envelope enclosing powdered detergent, etc.)
275	..For leather, hair, feathers, fur, or straw (e.g., Panama hat, etc.)	297	....Pouchlike water-insoluble unit enclosure
276	..For textile material (e.g., laundry detergent, etc.)	298	....Solid, shaped article (e.g., tablet, briquette, etc.)
277	...Multifunctional assembly (e.g., package with detergent and prespotter in separate containers, etc.)	299	...With soil release or antisoiling component
278	...For pile fabric or upholstery (e.g., carpet, rug, etc.)	300	....Enzyme component of specific activity or source (e.g., protease, of bacterial origin, etc.)
279	....Gas-propelled composition (e.g., aerosol, etc.)	301	...With photoactivator component or photobleaching function (e.g., porphine component, requiring use of visible or UV light, etc.)
280	....Gel or liquid composition		
281	...For removing stains (other than merely in the course of laundering or dry-cleaning operation)		
282	....Prior to dry cleaning		
283Prior to laundering (e.g., spotting stick, pre-spot, etc.)		
284Aqueous component		

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| 302 | ...With oxygen or halogen containing chemical bleach or oxidant component | 321 | ...Liquid composition (e.g., slurry, etc.) |
| 303 |Liquid composition | 322 | ...With nitrogen, oxygen, or sulfur containing textile softening or antistatic component |
| 304 |Nonaqueous liquid | 323 | ...With aluminosilicate component (e.g., ion-exchange zeolite, etc.) |
| 305 | ...Enzyme component of specific activity or source (e.g., lipase, of bacterial origin, etc.) | 324 | ...With nitrogen, oxygen, or sulfur containing optical brightener |
| 306 |Proteolytic enzyme | 325 | ...Liquid composition (e.g., slurry, etc.) |
| 307 | ...With oxygen, nitrogen, or sulfur containing optical brightener | 326 | ...Process of preparing (other than mere combining of components) |
| 308 | ...With oxygen, nitrogen, or sulfur containing textile softening or antistatic component | 327 | ...With nitrogen, oxygen, or sulfur containing textile softening or antistatic component |
| 309 |Peroxy component | 328 | ...Liquid composition (e.g., slurry, etc.) |
| 310 |Percarboxylic acid component, or salt thereof | 329 |Quaternary nitrogen or phosphorus, or heterocyclic nitrogen containing fabric softener or antistatic component |
| 311 |With heavy metal containing catalyst or activator (e.g., containing Mn, Cu, Fe, etc.) | 330 | ...Quaternary nitrogen or phosphorus, or heterocyclic nitrogen containing fabric softener or antistatic component |
| 312 |With nitrogen or oxygen containing bleach precursor or activator (e.g., ester, acid anhydride, etc.) | 331 |Nonionic oxygen containing surfactant or polyacrylamide component |
| 313 |Carbonyl single bonded to nitrogen in the activator or precursor (e.g., amide, imide, etc.) | 332 | ...Nitrogen single bonded to plural carbons in the component, or salt thereof (e.g., secondary or tertiary amine, etc.) |
| 314 |Nitrogen multiple bonded to carbon in the activator or precursor (e.g., cyano, imidoyl, triazino, etc., substituent) | 333 |The component is a carboxamide or an amine oxide |
| 315 |With aluminosilicate component (e.g., synthetic zeolite, etc.) | 334 | ...Layered or swelling inorganic silicate containing component (e.g., smectite clay, bentonite, etc.) |
| 316 |With soap component | 335 | ...With component inhibiting corrosion of metal or vitreous enamel laundering equipment (other than inorganic silicate) |
| 317 |With suds regulating or inorganic alkaline earth metal salt component | 336 | ...Gel, cream, or paste |
| 318 |With polycarboxylic acid component, or salt or anhydride thereof (e.g., carboxylic acid copolymer, etc.) | 337 | ...Liquid composition (e.g., slurry, etc.) |
| 319 | ...With halogen, nitrogen, oxygen, or phosphorus containing antiseptic or biocidal component | 338 |Nonaqueous liquid |
| 320 | ...Enzyme component of specific activity or source (e.g., protease, of bacterial origin, etc.) | | |

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| 339 |Alkali metal hydroxide or borate or whole plant or animal material component or crude extract thereof (e.g., borax, sodium metaborate, flour, etc.) | 352 |Plural sulfur-containing, anionically substituted surfactants |
| 340 |Plural nonsoap organic surfactants (e.g., nonionic and anionically substituted, diverse nonionic surfactants, etc.) | 353 | ...Higher fatty acid component, or salt or glyceride ester thereof (e.g., soap, vegetable oil, magnesium stearate, etc.) |
| 341 |Nitrogen containing organic surfactant devoid of covalently bonded anionic substituents (e.g., cationic, nonionic, etc., surfctant) | 354 | ...With lime-soap dispersant |
| 342 |Liquid alcohol or hydrocarbon component | 355 | ...With non-soap surfactant component |
| 343 |Colorant, soap, or organic silicon containing component | 356 | ...Oxygen containing surfactant devoid of covalently bonded anionic substituents (e.g., polyethoxylated alcohol, amine oxide, etc.) |
| 344 | ...Whole plant or animal material component or crude extract thereof (e.g., glue, flour, etc.) | 357 | ...Sulfur-containing, anionically substituted surfactant |
| 345 | ..Alkali metal borate component (e.g., borax, sodium metaborate, etc.) | 358 | ...With higher fatty alcohol component |
| 346 | ...Sulfonium, phosphonium, or nonanionic sulfoxy containing organic component (e.g., sulfoxide, sulfonamide, etc.) | 359 | ...With inorganic phosphorus containing component |
| 347 | ..Phosphate ester, wax, or organic silicon containing component (e.g., defoamer, etc.) | 360 | ...Poly(oxyalkylene) or plural carboxamido groups containing component (e.g., polyvinyl pyrrolidone, etc.) |
| 348 | ...Titanium dioxide or inorganic alkaline earth metal salt component (e.g., calcium or magnesium carbonate, etc.) | 361 | ..Polycarboxylic acid component, or acid anhydride or salt thereof (e.g., sodium citrate, maleic anhydride polymer, polyacrylic acid, etc.) |
| 349 | ..Coated, encapsulated, or impregnated particle component in a physically heterogeneous composition (e.g., coated or encapsulated particles mixed with powder, granules, etc.) | 362 | ..For removing soap scum or curd or combustion residues (e.g., carbon deposits, etc.) |
| 350 | ...Nitrogen containing surfactant devoid of covalently bonded anionic substituents which is admixed with a diverse non-soap surfactant | 363 | ..For removing stains caused by iron, aluminum, or protein containing material (e.g., rust, aluminum marks, blood, food, etc.) |
| 351 | ...Sulfur containing anionically substituted surfactant which is admixed with a diverse non-soap surfactant | 364 | ..For displacing organic liquid film from a solid surface |
| | | 365 | ..For removing greasy or oily contaminant from a substrate |
| | | 366 | ..For removing asphalt, tar, or hardened cementitious material (e.g., concrete, etc.) |
| | | 367 | ..With oxygen or halogen containing chemical bleach or oxidant component |
| | | 368 | ..With scrubbing or scouring component (e.g., containing an abrasive, etc.) |
| | | 369 | ...Liquid composition (e.g., slurry, etc.) |
| | | 370 | ..Liquid, paste, foam, or gel (e.g., slurry, aerosol composition or package, etc.) |

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| 371 | ...Nonaqueous liquid | 391 | ..Quaternary ammonium or sulfonium or iodine containing antiseptic or biocidal component (e.g., elemental iodine, etc.) |
| 372 | ...The bleach or oxidant component contains peroxy | 392 | .Enzyme component of specific activity or source (e.g., protease, of bacterial origin, etc.) |
| 373 | ...Colorant, amine or phosphine oxide, or nonanionic sulfoxy containing organic component | 393 | ..Liquid composition (e.g., slurry, etc.) |
| 374 | ..With enzyme component of specific activity or source (e.g., protease, of bacterial origin, etc.) | 394 | .With nitrogen, oxygen, or sulfur containing optical brightener, ultraviolet absorber, antistatic, or fiber softening component |
| 375 | ..The bleach or oxidant component contains peroxy | 395 | .With scrubbing or scouring component (e.g., containing an abrasive, etc.) |
| 376 | ...With heavy metal, nitrogen, or oxygen containing activator, catalyst, or precursor | 396 | ..Cream; paste; gel; solid, shaped article; or gas-propelled composition (e.g., bar, aerosol, etc.) |
| 377 | ...Aluminosilicate or soap component | 397 | ..Liquid composition (e.g., slurry, etc.) |
| 378 | ...Perborate salt component | 398 | ...Polycarboxylic acid component, or acid anhydride, salt, or ester thereof (e.g., maleic anhydride polymer, polyacrylic acid, etc.) |
| 379 | ..Chlorine-containing bleach or oxidant component | 399 | ..Soap component |
| 380 | ...The component is a hypochlorite salt | 400 | .With soil-release, anti-soiling, coating, or nonabrasive polishing component (e.g., with polysiloxane, chalk, etc.) |
| 381 | ...The component is organic (e.g., chloro(iso)cyanurate derivative, etc.) | 401 | .With metal-corrosion inhibiting component (i.e., preventing corrosion, such as tarnishing, discoloration, etc., of metal equipment which is in contact with the cleaning composition) |
| 382 | ..With halogen, nitrogen, oxygen, or phosphorus containing antiseptic or biocidal component | 402 | ..Sulfur or nitrogen containing organic substituent in the component |
| 383 | ..Liquid, paste, or gel | 403 | .Gel or malleable composition (e.g., plastic-like, etc.) |
| 384 | ...Quaternary ammonium containing antiseptic or biocidal component | 404 | .Cream or paste |
| 385 | ...Elemental iodine antiseptic or biocidal component | 405 | .Liquid composition |
| 386 | ...Hydroxyphenyl or halophenyl moiety in the antiseptic or biocidal component (e.g., phenol, etc.) | 406 | ..Packaged or gas-propelled composition |
| 387 | ..Halophenyl moiety in the antiseptic or biocidal component | 407 | ..Nonaqueous liquid |
| 388 | ...Halogenated hydroxyphenyl moiety in the antiseptic or biocidal component | 408 | ...Azeotropic or azeotrope-like composition |
| 389 | ..Soap component | 409 | ...Nitrogen containing component |
| 390 | ...Heavy metal, heterocyclic nitrogen, or organic phosphorus containing antiseptic or biocidal component | 410 | ...Ternary composition |

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POSITIONS THEREFOR, OR PROCESSES OF PREPARING THE COMPOSITIONS

411Oxygen containing component	434	..Polycarboxylic acid component, or acid anhydride or salt thereof (e.g., acrylic acid polymer, maleic anhydride, sodium citrate, etc.)
412	..Halogenated hydrocarbon component		
413	...Polyoxyalkylene containing surfactant devoid of covalently bonded anionic substituents	435	..Ammonia or alkali metal hydroxide or carbonate component
414	...Sulfur containing anionically substituted surfactant	436	..Organic phosphorus containing component
415	..Azeotropic or azeotropelike composition	437	..Higher fatty acid component or salt or ester thereof (e.g., soap, vegetable oil, etc.)
416	..Opaque or pearlescent composition	438	..Heterogeneous arrangement (e.g., mixture of macroscopic particles differing in physical or chemical composition, etc.; liquid component encapsulated in or sorbed on solid material, etc.)
417	..Plural immiscible liquid phases (e.g., emulsion, oily and aqueous layers, etc.)		
418	..Liquid and solid phases (e.g., suspension, slurry, etc.)	439	..Package or dosing unit (e.g., sachet, wrapped cake soap, etc.)
419	..With colorant component	440	..Bar or cake (e.g., having segments of different color, solubility, etc.)
420	..Alkali metal or ammonium borate, or crude plant or animal material extract component (e.g., borax, sour milk, soap bark extract, etc.)	441	..Coated or encapsulated solid material, or process of preparing
421	...Polyoxyalkylene containing surfactant devoid of covalently bonded anionic substituents	442	...Aqueous coating agent
422	..With diverse non-soap surfactant	443	..Spray-dried component, or process of preparing (e.g., postdosed composition, etc.)
423	...Nitrogen or phosphorus in organic surfactant devoid of covalently bonded anionic substituents	444	..Agglomerated product or component, or process of preparing
424	....Sulfur containing anionically substituted surfactant	445	..Solid, shaped macroscopic article or structure (e.g., pellet, film, etc.)
425	....With soap or diverse sulfur containing surfactant component	446	..Of compacted powdery or granular material (e.g., tablet, briquette, etc.)
426	..Sulfur containing anionically substituted surfactant	447	..Bar or cake
427	..With diverse non-soap surfactant	448	...With lime-soap dispersant
428	....Plural anionically substituted sulfur containing surfactants	449	...Having discrete indentation or protuberance
429	....Sulfonate surfactant with sulfate monoester surfactant	450	...With anionically substituted nonsoap surfactant and soap component
430	..With soap component	451	..Extruded product, or process of preparing (e.g., noodles, etc.)
431	..Organic phosphorus containing component	452	..Spray-dried product, or process of preparing
432	..Organic solvent component		
433	..Nitrogen in organic surfactant devoid of covalently bonded anionic substituents		

453	...Inorganic phosphorus containing component	476	...Carboxylic acid anhydride, free carboxyl group, or salt thereof in the polymer
454	...Soap component	477	..Polycarboxylic acid component, or salt thereof
455	..Gas-filled void containing (e.g., foamed particle, hollow pellet, etc.)	478	...With alkali metal carbonate or bicarbonate component
456	..Spray cooling process, or product thereof	479	...Ether group in the polycarboxylic component
457	..Heat drying process, or product thereof	480	...Nitrogen attached to the polycarboxylic component by nonionic bonding (e.g., nitrilotriacetate salt, etc.)
458	..Process of making a soap containing composition by saponification of an ester, or product thereof	481	..Soap
459	..With subsequent processing, or product thereof (e.g., postdosing of other components, etc.)	482	...With lime-soap dispersant
460	..With boron or silicon containing inorganic component or cellular animal or plant material component (e.g., potato pulp, flour, etc.)	483	...Transparent or translucent composition, or process of preparing
461	..Specific organic component (e.g., triazines, etc.)	484	...With hydrocarbon or organic sulfoxy containing component
462	..Cellular animal or plant material (e.g., tree bark, leather, flour, cellulose fiber, etc.)	485	...With clay, aluminum, or heavy metal containing component
463	..Crude animal or plant material extract (e.g., pine oil, etc.)	486	...With boron, silicon, or phosphorus containing inorganic component
464	..Lignin	487	..Natural resin (e.g., rosin, shellac, tall oil, etc.)
465	..Boron in the component	488	..Carboxylic acid, or salt thereof
466	..Silicon in the component	489	...Sulfur attached indirectly to the carboxyl group by nonionic bonding, or salt thereof
467	..Phosphorus in the component	490	...Nitrogen attached indirectly to the carboxyl group by nonionic bonding, or salt thereof
468	...Phospholipid (e.g., lecithin, etc.)	491	...Higher fatty acid, or salt thereof
469	...Carbon bonded directly to the phosphorus (e.g., phosphonic acid or salt or ester thereof, etc.)	492	..Sulfur in the component
470	..Carbohydrate	493	...Sulfoxy (e.g., dimethyl sulfoxide, sulfone, etc.)
471	...Containing carboxyl group or salt thereof (e.g., carboxymethyl cellulose, etc.)	494	...Nitrogen attached directly or indirectly to the sulfoxy group by nonionic bonding
472	...With organic sulfoxy containing component	495	...Sulfonic acid or sulfate monoester substituent in the component, or salt thereof
473	...Cellulose	496	...With nitrogen containing organic component devoid of covalently bonded anionic substituents
474	...Starch	497	...With nonionic hydroxy containing organic component (e.g., alcohol, etc.)
475	..Synthetic polymer or natural rubber (other than polyether, such as polyethylene glycol, alkylene oxide condensation products, etc.)		

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| <p>498With diverse sulfonic acid
 or sulfate monoester
 component, or salt thereof
 (e.g., sulfate and sulfonate,
 etc.)</p> <p>499 ..Nitrogen in the component
 (except triazines) (e.g.,
 amine, etc.)</p> <p>500 ...Heterocyclic nitrogen (except
 triazines)</p> <p>501 ...Amido nitrogen (e.g., urea,
 etc.)</p> <p>502 ...Hydroxy in the component</p> <p>503 ...Amine oxide</p> <p>504 ...Quaternary ammonium</p> <p>505 ..Oxygen in the component (except
 substituted triazines)</p> <p>506 ...Ether</p> <p>507 .Clay or inorganic
 aluminosilicate salt component
 (e.g., bentonite, zeolite,
 etc.)</p> <p>508 .Heavy metal or aluminum
 containing inorganic component</p> <p>509 .Alkali metal carbonate,
 bicarbonate, or
 sesquicarbonate component</p> <p>510 ..With inorganic phosphorus
 containing component</p> <p>511 .Inorganic silicon containing
 component</p> <p>512 ..With inorganic phosphorus
 containing component</p> <p>513 AUXILIARY COMPOSITIONS FOR
 CLEANING, OR PROCESSES OF
 PREPARING (E.G., LAUNDERING
 AIDS, SUCH AS WRINKLE-REDUCING
 COMPOSITIONS, ETC.)</p> <p>514 .Dishwasher rinse composition</p> <p>515 .Textile softening or antistatic
 composition (e.g., for use in
 the wash cycle, etc.)</p> <p>516 ..With diverse textile treating
 component (e.g., laundry sour,
 optical brightener, etc.)</p> <p>517 ...Soil-release or anti-soiling
 component</p> <p>518 ..Halogen, nitrogen, oxygen, or
 phosphorus containing chemical
 bleach or oxidant or
 antiseptic, biocidal, or
 deodorant component</p> | <p>519 ..Dryer-activated composition or
 article (e.g., rupturable
 capsule, reusable dispenser,
 etc.)</p> <p>520 ...Water-insoluble, single-use
 solid substrate or enclosure,
 or composition combinable
 therewith (e.g., dryer sheet,
 etc.)</p> <p>521 ..Rinse-added composition</p> <p>522 ...Liquid composition</p> <p>523 ...Package or encapsulated
 component</p> <p>524 ...Nonionic polyoxyalkylene
 containing component (e.g.,
 polyethylene glycol, etc.)</p> <p>525 ...Water-miscible organic
 solvent component (e.g., lower
 alkanol, ethylene glycol,
 etc.)</p> <p>526 ...Acyclic hydrocarbon or
 nitrogen-free higher fatty
 acid component, or ester or
 alcohol derived therefrom</p> <p>527 ..Liquid composition</p> <p>528 .Soil-release or antisoiling
 composition</p> <p>529 .Laundry sour composition</p> <p>530 .Enzyme composition</p> <p>531 .Detergent builder composition</p> <p>532 ..Aluminum or boron containing
 metal silicate component
 (e.g., aluminosilicate,
 zeolite, etc.)</p> <p>533 ..Polycarboxylic acid component,
 or salt thereof (e.g.,
 nitrilotriacetic acid,
 polyacrylic acid, etc.)</p> <p>534 ..Inorganic phosphorus containing
 component</p> <p>535 .Surfactant composition for
 cleaning agents (other than
 raw soap)</p> <p>536 ..Sulfoxy containing anionically
 substituted surfactant
 component</p> <p>537 ...Liquid or paste composition</p> |
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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 **DESCALING AGENT CONTAINING (252/80)**

- FOR 101 ..Deoxidant or free-metal containing (252/81)
 FOR 102 ..Plant or organic material containing (252/82)
 FOR 103 ..Tannin, bark, or bark extract containing (252/83)
 FOR 104 ...With inorganic compound or element (except water) (252/89)
 FOR 105Inorganic matter other than alkali-metal hydroxides and carbonates and water (252/85)
 FOR 106 ..With inorganic compound or element (except water) (252/86)
 FOR 107 ...Inorganic matter other than alkali-metal hydroxides and carbonates and water (252/87)
 FOR 108 **DETERGENTS (FOR USE ON SOLID MATERIALS) (252/89.1)**
 FOR 109 ..Packages or heterogeneous arrangements (252/90)
 FOR 110 ..Impregnated or coated with detergents (252/91)
 FOR 111 ..Separate soap containing and non-soap zones (252/92)
 FOR 112 ...Wrapped or encased soaps (252/93)
 FOR 113 ..With chemical bleachant, oxidant, or reductant (252/94)
 FOR 114 ..Oxidant containing (252/95)
 FOR 115 ...Soap (water-soluble fatty acid or rosin) containing (252/96)
 FOR 116Water-soluble inorganic B, Si, or P compound containing (252/97)
 FOR 117Ammonia, amine, or nitrogen base compound containing (except proteins) (252/98)
 FOR 118 ...Water-soluble inorganic B, Si, or P compound containing (252/99)

- FOR 119 ...Acidic (252/100)
 FOR 120Nitric acid or aqua regia containing (252/101)
 FOR 121 ...Ammonia, amine, or nitrogen base compound containing (except proteins) (252/102)
 FOR 122 ...Alkaline (252/103)
 FOR 123 ...Solvent (physical or chemical) containing (252/104)
 FOR 124 ..Reductant containing (252/105)
 FOR 125 ..Antiseptic, insecticide, or biocide containing (252/106)
 FOR 126 ..Soap (water soluble fatty acid or rosin) containing (252/107)
 FOR 127 ..Soap (water-soluble fatty acid or rosin) containing (252/108)
 FOR 128 ..Water-soluble inorganic B, Si, or P compound (252/109)
 FOR 129 ...Ammonia, amine, or nitrogen base compound containing (except proteins) (252/110)
 FOR 130Physical non-water solvent containing (252/111)
 FOR 131Water soluble abradant, wax, or filler containing (252/112)
 FOR 132Water-insoluble abradant, wax, or filler containing (252/113)
 FOR 133 ...Physical non-water solvent containing (252/114)
 FOR 134 ...Water-soluble abradant, wax, or filler containing (252/115)
 FOR 135 ...Water-soluble abradant, wax, or filler containing (252/116)
 FOR 136 ..Ammonia, amine, or nitrogen base compound containing (except proteins) (252/117)
 FOR 137 ...Physical non-water solvent containing (252/118)
 FOR 138Water-soluble abradant, wax, or filler containing (252/119)
 FOR 139 ...Water-insoluble abradant, wax, or filler containing (252/120)
 FOR 140 ..Organic sulpho-compound containing (252/121)
 FOR 141 ..Physical non-water solvent containing (252/122)
 FOR 142 ...Water-insoluble abradant, wax, or filler containing (252/123)
 FOR 143Organic and inorganic type (252/124)
 FOR 144Organic type (252/125)
 FOR 145 ...Hydrocarbon or halohydrocarbon containing (252/126)

- FOR 146 ...Nonhydrocarbon non-soap organic compound containing (252/127)
- FOR 147 ..Water-insoluble abradant, wax, or filler containing (252/128)
- FOR 148 ...Organic and inorganic type (252/129)
- FOR 149 ...Organic type (252/130)
- FOR 150 ...Inorganic type (252/131)
- FOR 151 ..With other organic, plant, or animal matter or compound (252/132)
- FOR 152 ..With inorganic compound or element (except alkali-metal hydroxides and carbonates and water) (252/133)
- FOR 153 .Shapes or structures (252/134)
- FOR 154 .Water-soluble inorganic B, Si, or P compound containing (252/135)
- FOR 155 ..Acidic (252/136)
- FOR 156 ..Nitrogen base containing (except protein) (252/523)
- FOR 157 ...Heterocyclic (252/524)
- FOR 158 ...Amine or amide (252/525)
- FOR 159Sulfur or phosphorus containing (252/526)
- FOR 160Soluble carboxylic acid or salt (252/527)
- FOR 161Quaternary or amine oxide (252/528)
- FOR 162Hydroxy (252/529)
- FOR 163 ..Organic sulfoxy (252/530)
- FOR 164 ...Organic sulfate (252/531)
- FOR 165Oxy (252/532)
- FOR 166With acyclic sulfonate (252/533)
- FOR 167With aromatic sulfonate (252/534)
- FOR 168 ...Aliphatic sulfonate (252/535)
- FOR 169Unsaturated (252/536)
- FOR 170With aromatic sulfonate (252/537)
- FOR 171Non-oxo carboxylic (252/538)
- FOR 172 ...Aromatic sulfonate (252/539)
- FOR 173With non-ionic wetting agent or fatty alcohol (252/540)
- FOR 174 ..Physical non-water solvent containing (252/139)
- FOR 175 ..Water-insoluble abradant, wax, or filler containing (252/140)
- FOR 176 .Water-insoluble cyanides or cyanates containing (252/141)
- FOR 177 .Acidic (252/142)
- FOR 178 ..Physical non-water solvent containing (252/143)
- FOR 179 ...Water-insoluble abradant, wax, or filler containing (252/144)
- FOR 180 ..Water-insoluble abradant, wax, or filler containing (252/145)
- FOR 181 ..With corrosion inhibitors (252/146)
- FOR 182 ...Compounds of elements other than C, H, O, N, S, Cl, Na, and K containing (252/147)
- FOR 183 ...Organic nitrogen compound containing (252/148)
- FOR 184Thio organic compound containing (252/149)
- FOR 185Thiazole nucleus containing (252/150)
- FOR 186 ...Organic sulphur compound containing (252/151)
- FOR 187 .Nitrogen base containing (except protein) (252/541)
- FOR 188 ..Heterocyclic (252/542)
- FOR 189 ...Optical bleach (252/543)
- FOR 190 ..Amine or amide (252/544)
- FOR 191 ...Sulfur or phosphorus containing (252/545)
- FOR 192 ...Soluble carboxylic acid or salt (252/546)
- FOR 193 ...Quaternary or amine oxide (252/547)
- FOR 194 ...Hydroxy (252/548)
- FOR 195 ..Physical non-water solvent containing (252/153)
- FOR 196 ...Water-insoluble abradant, wax, or filler containing (252/154)
- FOR 197 ..Water-insoluble abradant, wax, or filler containing (252/155)
- FOR 198 .Alkaline (252/156)
- FOR 199 ..Gas-generative (252/157)
- FOR 200 ..Physical non-water solvent containing (252/158)
- FOR 201 ...Water-insoluble abradant, wax, or filler containing (252/159)
- FOR 202 ..Water-insoluble abradant, wax, or filler containing (252/160)
- FOR 203 .Organic sulfoxy (252/549)
- FOR 204 ..Organic sulfate (252/550)
- FOR 205 ...Oxy (252/551)
- FOR 206 ...With acyclic sulfonate (252/552)
- FOR 207 ...With aromatic sulfonate (252/553)
- FOR 208 ..Aliphatic sulfonate (252/554)
- FOR 209 ...Unsaturated (252/555)

- FOR 210 ...With aromatic sulfonate (252/556)
- FOR 211 ..Non-oxo carboxylic (252/557)
- FOR 212 ..Aromatic sulfonate (252/558)
- FOR 213 ...With non-ionic wetting agent or fatty alcohol (252/559)
- FOR 214 .Physical or chemical non-water solvent containing (252/162)
- FOR 215 ..Abradant, wax, cellulose ester, inorganic solid, or filler containing (252/163)
- FOR 216 ...With oxygen organic compounds (252/164)
- FOR 217 ...With organic compounds of other than C, H, and O (252/165)
- FOR 218With hydrocarbon solvents (252/166)
- FOR 219 ...With hydrocarbon solvents (252/167)
- FOR 220Wax or cellulose-ester and abradant, inorganic solid, or other filling containing (252/168)
- FOR 221Wax or cellulose-ester containing (252/169)
- FOR 222 ..Oxygen organic compound containing (252/170)
- FOR 223 ...Organic compounds of other than C, H, and O containing (252/171)
- FOR 224 .Nonhydrocarbon substances containing (252/172)
- FOR 225 .Aqueous (252/173)
- FOR 226 .Shapes or structures (252/174)
- FOR 227 .Perfume containing (252/174.11)
- FOR 228 .Enzyme containing (252/174.12)
- FOR 229 .Coated or encapsulated particle or liquid containing (other than spray dried detergents (252/174.13)
- FOR 230 .Alkali metal inorganic carbonate containing (252/174.14)
- FOR 231 .Organo-silicon compound containing (252/174.15)
- FOR 232 .Organo-phosphorus compound containing (252/174.16)
- FOR 233 .Carbohydrate moiety containing (252/174.17)
- FOR 234 ..Carboxyl group containing (252/174.18)
- FOR 235 .Nonpolymeric compound having at least two free carboxyl groups containing (252/174.19)
- FOR 236 .Polyoxyalkylene compound containing (252/174.21)
- FOR 237 ..Two or more polyoxyalkylene compounds containing (252/174.22)
- FOR 238 .Polymer containing (252/174.23)
- FOR 239 ..Carboxylic acid anhydride, free carboxyl group, or salt thereof containing (252/174.24)
- FOR 240 .Water-insoluble inorganic compound containing (252/174.25)