

<p>This Class 523 is considered to be an integral part of Class 520 (see the Class 520 schedule for the position of this Class in schedule hierarchy). This Class retains all pertinent definitions and class lines of Class 520</p>	<p>113</p> <p>114</p> <p>115</p> <p>116</p> <p>117</p> <p>118</p> <p>120</p> <p>121</p> <p>122</p> <p>123</p> <p>124</p> <p>125</p> <p>126</p> <p>127</p> <p>128</p> <p>129</p> <p>130</p>	<p>...Composition suitable for use as tissue or body member replacement, restorative, or implant</p> <p>...Composition which anchors by ingrowth of surrounding tissue</p> <p>...Composition suitable for use as tooth or bone replacement, restorative, or implant</p> <p>....Cement or filling composition</p> <p>.....Radio- or X-ray opaque</p> <p>...Sealant or adhesive</p> <p>..Denture plate repair, adhesive, cushion or modification composition, e.g., modification of denture base to improve fit, etc.</p> <p>...Aperture affecting composition, e.g., earplug, dilator, etc.</p> <p>..Composition having ingredient providing biocidal or biostatic protection thereto or process of preparing</p> <p>..Plant receptacle composition or process of preparing</p> <p>..Composition containing an additive which enhances degradation by environmental stimuli or process of preparing</p> <p>...By light, heat, or radiation</p> <p>...Containing organic salt of a transition metal</p> <p>...Containing organohalogen additive</p> <p>...Containing carbohydrate or cellular material derived from plant or animal</p> <p>..Composition containing nonresinous organic material derived from municipal solid waste disposal system or process of preparing</p> <p>..Composition for plugging pores in wells or other subterranean formations; consolidating formations in wells or cementing a well or process of preparing</p>
<p>SYNTHETIC RESINS (CLASS 520, SUBCLASS 1)</p> <p>1 .PROCESSES OF PREPARING A DESIRED OR INTENTIONAL COMPOSITION OF AT LEAST ONE NONREACTANT MATERIAL AND AT LEAST ONE SOLID POLYMER OR SPECIFIED INTERMEDIATE CONDENSATION PRODUCT, OR PRODUCT THEREOF</p> <p>100 ..Food or tobacco contact composition or process of preparing</p> <p>101 ...Food release coating</p> <p>102 ..Odor masked, odor reduced or perfumed composition or process of preparing</p> <p>103 ..Composition having reduced health risks upon exposure thereto during incidental handling or body contact or process of preparing; other than friction elements</p> <p>105 ..Nonmedicated composition specifically intended for contact with living animal tissue or process of preparing; other than apparel</p> <p>106 ..Contact lens making composition</p> <p>107 ....Silicon-containing organic polymer</p> <p>108 ....Polymer of a heterocyclic N-vinyl polymerizable compound</p> <p>109 ...Dental or body impression taking material</p> <p>111 ...Compositions for use in tape adhesives, binder or impregnate for a body fluid adsorbent device, e.g., a surgical adhesive tape, etc.</p> <p>112 ...Non-thrombogenic</p>	<p>113</p> <p>114</p> <p>115</p> <p>116</p> <p>117</p> <p>118</p> <p>120</p> <p>121</p> <p>122</p> <p>123</p> <p>124</p> <p>125</p> <p>126</p> <p>127</p> <p>128</p> <p>129</p> <p>130</p>	<p>...Composition suitable for use as tissue or body member replacement, restorative, or implant</p> <p>...Composition which anchors by ingrowth of surrounding tissue</p> <p>...Composition suitable for use as tooth or bone replacement, restorative, or implant</p> <p>....Cement or filling composition</p> <p>.....Radio- or X-ray opaque</p> <p>...Sealant or adhesive</p> <p>..Denture plate repair, adhesive, cushion or modification composition, e.g., modification of denture base to improve fit, etc.</p> <p>...Aperture affecting composition, e.g., earplug, dilator, etc.</p> <p>..Composition having ingredient providing biocidal or biostatic protection thereto or process of preparing</p> <p>..Plant receptacle composition or process of preparing</p> <p>..Composition containing an additive which enhances degradation by environmental stimuli or process of preparing</p> <p>...By light, heat, or radiation</p> <p>...Containing organic salt of a transition metal</p> <p>...Containing organohalogen additive</p> <p>...Containing carbohydrate or cellular material derived from plant or animal</p> <p>..Composition containing nonresinous organic material derived from municipal solid waste disposal system or process of preparing</p> <p>..Composition for plugging pores in wells or other subterranean formations; consolidating formations in wells or cementing a well or process of preparing</p>

131	...Composition for treating unconsolidated or loose strata, e.g., sand consolidation, etc.	150	...Nonskid or nonslip composition for vehicle or pedestrian movement
132	..Composition for in situ soil conditioning or treating or process of preparing	152	...For wheeled vehicle
134	..Battery container or battery container cover composition or process of preparing	153	...Containing fibrous or polycrystalline refractory oxide
135	..Solar energy absorption or solar reflection composition or process of preparing	155	...Composition devoid of asbestos
136	..Composition sensitive to or resistant to radioactive material or cathode rays (e.g., electron bombardment, etc.) or process of preparing	156	....Containing at least two organic materials, e.g., binder plus other organic material, etc.
137	..Electromagnetic wave absorbing composition or process of preparing (excludes visible, IR or UV portions of spectrum)	157	...Containing at least two organic materials, e.g., binder plus other organic material, etc.
138	..Composition for contact with hot propulsion or exhaust gas or process of preparing	158	....Composition contains a phenolic, amine, or ketone condensate with aldehyde plus a polymer derived from ethylenic monomers only
139	..Composition related to metal foundry molding or metallurgical furnace or process of preparing	159	...Containing asbestos and at least one inorganic material
140	...Hot-top or taphole plug composition or process of preparing	160	..Printing ink composition for glass or ceramic substrate or process of preparing
141	..Composition for metallurgical furnace or oven or process of preparing	161	..Invisible, ballpoint, or typewriter ink compositions or process of preparing; or composition for correction ribbons or correction fluids or process of preparing
142	..Organic polyisocyanate or derived from polyisocyanate	164	..Lead pencil or marking crayon composition or process of preparing
143	...Phenolic, amine, or ketone condensate with aldehyde	166	..Composition for puncture proof tire liner or in emergency tire repair (e.g., tire inflation, etc.) or process of preparing
144	...Furan-type material	167	..Composition utilized in the manufacturing or repairing of shoes (excluding shoe heels or soles or polish) or process of preparing
145	...Phenolic or amine or ketone condensate with aldehyde	168	..Optical glass cementing or slide mounting composition or process of preparing
146	...With or derived from carboxylic acid or salt thereof, or organic sulfur material	169	..Antifogging or water repellent composition for optical or windshield application or process of preparing
147	...With or derived from organic hydroxyl group containing material containing eight or more carbon atoms	170	..Glass enamel composition or process of preparing
148	...Polyester based		
149	..Friction element composition or process of preparing		

171	..Composition having opalescent, pearlescent, or variegated color or process of preparing	205	...Product having a solid synthetic polymer or solid polymer-forming system
172	..Pavement or sign marking or reflex reflecting composition or process of preparing	206	...Product having two or more solid synthetic polymers, or a solid polymer and a solid polymer-forming system
173	..Cable filling or flooding composition or process of preparing	207	...Solid polymer or solid polymer-forming system is encapsulated in or impregnated in a nonreactant material
174	..Phonograph record molding composition or process of preparing	208	...Solid polymer or solid polymer-forming system is or derived from an aldehyde or derivative
175	..Liquid-solid drag reduction composition or process of preparing	209	...Product having a silicon atom
176	..Anaerobic adhesive or thread sealing composition or process of preparing	210	...Product having a material encapsulated in or impregnated in a nonreactant material
177	..Coating or adhesive composition for application to a wet or contaminated surface (e.g., underwater or oil-contaminated, etc.) or process of preparing	211	...Reactant or catalyst is material encapsulated or impregnated
179	..Intumescent coating or ablative composition or process of preparing	212	...Product having a silicon atom as part of an organic compound
180	..Solid propellant binder composition or process of preparing	213	...Silicon containing organic material having an atom other than Si, C, H, or oxygen
181	..Composition devoid of magnetic materials and suitable for preparation of magnetic tape recording or process of preparing	214	...Product having glass
		215	...Product having elemental carbon
200	..Process of forming a composition of a solid polymer or solid polymer forming system by admixing a product in the form of a surface coated, impregnated, encapsulated, or surface modified fiber, sheet, particle, or web, with a material; or composition which is the result of said admixing	216	...Product having a silicon atom
		217	...Glass
		218	..Process of forming a composition having a nonreactant material selected for its special void characteristic; or composition containing same, e.g., syntactic foam, etc.
		219	...Glass void
		220	..Process of forming a composition having two or more solid materials having defined physical dimensions or surface areas; or composition containing same
201	..Solid polymer particle enclosed in layer of diverse solid polymer, e.g., core-shell, etc.	221	...Two or more solid synthetic polymers having defined physical dimension or surface area
202	...Product having a monomeric ethylenic reactant material		
203	...Silicon ethylenic reactant		
204	...Product having an inorganic material surface coated onto an organic substrate		

222	..Process of forming a composition having a fiber which is twisted, coiled, or involves specific mechanically interengaged fibers other than fibers solely of glass; or composition containing same, e.g., textiles, cloth, fiber bundles, mats, etc.	318	..Utilizing stream or mass moving in a described attitude of presentment relative to a zone, vessel, or another apparently stationary mass or stream, excluding mere "pouring into", e.g., from above, below, tangentially, etc.
223	..Process of forming a composition of a spheroidal material having physical dimension or composition containing same	319	..Utilizing treating or forming motion described by numerical data other than mere temperature, pressure, time, or amounts of material
300	..Utilizing direct application of magnetic, electrical, or wave energy	322	...Rotational rate (RPM) or velocity
303	..Controlling process in response to a stated measurement or test	323	...Work input, e.g., horsepower-hour/pound, etc.
305	..Adding material to maintain a stated equilibrium condition wherein the added material does not merely displace an equal amount from the treatment zone	324	..Utilizing a treatment zone specifically described by shape (other than nominally helical) or at least a part of which zone is specifically described by dimension, material, proportion, or angle or orientation
306	..Utilizing energy potential described as obtained as waste or by-product from a prior or concurrent operation	326	..Adding steam or hot water (T at least 60 degrees C, i.e., 140 degrees F)
307	..Utilizing a temperature greater than 250 degrees C (482 degrees F) or less than 0 degrees C	328	...Removal of material by treatment with hot water or steam, e.g., steam stripping, etc.
309	...With removal or comminution of material at a temperature greater than 250 degrees C or less than 0 degrees C, e.g., freeze drying, etc.	330	..Utilizing a gaseous stream to suspend or agitate a particulate solid polymer composition, e.g., fluidized bed, etc.
310	..Utilizing an ion exchanger or a solid sorptive material or semipermeable membrane	331	..Drying a composition which is situated on a moving substrate or drying utilizing a thin film evaporator
312	..Utilizing quiescent treatment condition	332	..Extracting material from solid polymer latex or aqueous dispersion or suspension with a liquid nonreactant material, e.g., solvent stripping, coprecipitation, etc.
313	..Utilizing mixing in a manner designed to avoid or minimize turbulence or shear, e.g., laminar flow, etc.	333	..Admixing a nonreactive additive ingredient in the form of a slurry, dispersion, or suspension (liquid-solid); said slurry dispersion or suspension containing no solid polymer or SICP
315	..Utilizing streams or masses moving relative to each other at a described angle of coincidence other than mere pouring, e.g., counter-current mixing, etc.		

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| 334 | ...Slurried, dispersed, or suspended ingredient admixed with previously formed latex, aqueous dispersion or aqueous suspension of a solid polymer | 353 | ..Utilizing plural discrete mixing operations in specifically described distinct noninterconnected zones |
| 335 | ..Creaming, agglomerating, or coalescing a solid polymer latex or aqueous dispersion wherein solid polymer latex or aqueous dispersion is the result | 375 | ..Radioactive or Group VIII A atom containing NRM |
| 336 | ..Inverting phase relationships or reappportioning the distribution of ingredients among phases | 400 | ..Process of forming a composition containing a nonreactive material (NRM) and a polymer containing more than one 1,2-epoxy group, or a preformed polymer derived from or admixed with a reactant containing more than one 1,2-epoxy group, or with a polymer derived from an epihalohydrin and a polyhydric phenol or polyol; or composition or product thereof |
| 337 | ...Inversion to form water-in-oil system | 401 | ...Contains inorganic water settable material NRM |
| 339 | ..With removal of a phase | 402 | ...Product contains water per se or water of hydration as designated nonreactive material (DNRM) |
| 340 | ..Removing material at reduced pressure, e.g., flashing, sublimation, spray drying, etc. | 403 |Two or more polymers containing more than one 1,2-epoxy group, two or more polymers derived from reactants containing more than one 1,2-epoxy group, or combination thereof, or one of said polymers and a reactant containing at least one 1,2-epoxy group |
| 342 | ...With step of spraying or centrifuging | 404 |With organic nitrogen or organic sulfur reactant |
| 343 | ..Treating an intentional composition with a step of removing and recycling material into the composition | 406 |Solid polymer derived from ethylenic reactants only (includes in situ reactants from plural 1,2-epoxides) |
| 344 | ..Multistep operation achieved within a stated interval of time, e.g., total cycle time, etc. | 407 |Polymer derived from ethylenic reactants only is graft, graft-type, block, or block-type copolymer |
| 346 | ..Utilizing plural mixing operations of specified varying intensity, e.g., intensity of each mixing is reduced, etc. | 408 |Two or more polymers derived from ethylenic reactants only |
| 347 | ..Utilizing plural discrete pressures different than ambient | 409 |Polymer derived from ethylenic reactants only derived from reactant containing chalcogen |
| 348 | ..Utilizing plural interconnected distinct forming or treating zones or locations other than nominal screw extruder, e.g., zones interconnected in parallel or having varying flow velocity, etc. | 410 |Polymer derived from ethylenic reactant only derived from reactant containing oxygen heterocycle |
| 351 | ..Utilizing plural mixing operations in preparation of a solid polymer inert ingredient concentrate, e.g., master batch, etc. | | |
| 352 | ..Utilizing multistage coagulation of a solid polymer latex | | |

411	.....Polymer derived from ethylenic reactants only derived from reactant containing nitrogen	433	...Polymer derived from reactant containing element other than C, H, O, or N or chlorine-containing reactant of three or more carbon atoms
412	.....Polymer from ethylenic reactants only derived from reactant-containing carboxylic acid ester	434	...Polymer derived from ethylenic reactants only
413	.....Polymer derived from ethylenic reactants only derived from plural unsaturated reactant	435	...Solid polymer derived from reactant containing element other than C, H, O, or N or chlorine-containing reactant of three or more carbon atoms
414	...Polymer contains more than one 1,2-epoxy group or one derived from reactant containing more than one 1,2-epoxy group is further derived from or reacted with organic nitrogen or sulfur	436	...Polymer is graft, graft-type, block, or block-type
415	.....Organic nitrogen compound contains isocyanate group	437	...Two or more polymers derived from ethylenic reactants only
416	.....Organic nitrogen compound is amine-aldehyde condensation product	438	...Polymer derived from ethylenic reactants only derived from plural unsaturated reactant
417	.....Two or more organic nitrogen compounds as reactants	439	...Polymer derived from ethylenic reactants only derived from heterocyclic reactant other than 1,2-epoxy solely
418	.....Organic nitrogen compound contains N-(C)*-(C=O)- group where *= subscript 0,1,2 . . ., e.g., protein, etc.	440	...Designated nonreactive material (DNRM) has numerically specified characteristics, e.g., particle size, density, etc., other than viscosity, m.p., b.p., molec. wt., chemical composition or percentage range
420	.....Organic nitrogen compound contains three or more nitrogen atoms other than as solid polymer, e.g., diethylene triamine, etc.	442	...Heavy or transition metal or compound thereof
421	.....Organic nitrogen compound contains element other than C, H, O, or N	443	....Silicon
423	...Polymer is graft, graft-type, block, or block-type copolymer	444	.....Glass
424	...Polymer is phenol-aldehyde condensation product	445	...Boron DNRM
425	...Polymer derived from silicon reactant	446	...Biologically derived cellular material other than cereal, cotton, or diatomaceous earth DNRM
426	...Carboxylic acid, ester, or salt thereof DNRM	447	...Carbohydrate or derivative including tannin or derivative DNRM
427	...Composition wherein two or more polymers or a polymer and a reactant all contain more than one 1,2-epoxy group, or product thereof	448	...Cellulose derivative containing -C(=O)OR or N
428	...With reactant nitrogen or sulfur compound	449	...Protein or biologically active polypeptide DNRM
429	.....Organic nitrogen compound contains N-heterocycle	450	...Coal, asphaltic, or bituminous material DNRM
		451	...Phosphorus DNRM
		452	...Phosphorus directly bonded to nitrogen
		453	...Organic sulfur compound DNRM
		454	...Ketone or aldehyde DNRM

455	...Carboxylic acid or derivative devoid of heavy metal atom DNRM	509	...Carbohydrate or derivative including tannin or derivative DNRM
456	...Organic chalcogen compound DNRM	510	...Phenol, phenol ether, or phenolate salt DNRM
457	...Elemental metal or metal compound other than as silicate DNRM	511	...Organic chalcogen other than metallocarboxylate salt, e.g., diethylene glycol, etc., DNRM
458	...Transition metal	512	...Elemental metal or elemental carbon DNRM
459	...Heavy metal	513	...Designated nonreactive material (DNRM) has numerically specified characteristic, e.g., particle size, density, etc., other than viscosity, m.p., b.p., molec. wt., chemical composition or percentage range
460	....Group VA metal (As, Sb, Bi)	514	...Metal atom other than as silicate DNRM
461	...Organic nitrogen compound DNRM	515	...Transition metal atom
462	...Halogenated hydrocarbon other than carbon tetrachloride, chloroform, or methylene chloride DNRM	516	...Heavy metal atom
463	...Hydrocarbon other than xylenes, benzene, or toluene DNRM	517	...Halogenated hydrocarbon other than methylene chloride, chloroform, or carbon tetrachloride DNRM
464	...Hydrocarbon having ethylenic unsaturation	518	...Bituminous, coal, or hydrocarbon other than benzene, toluene, or xylene or mixtures thereof DNRM
465	...Hydrocarbon wax	521	...Inorganic silicon atom other than glass DNRM
466	...Inorganic SI-O bond DNRM	522	...Contains graft, graft-type, block, or block-type copolymer
467	...Polymer derived from ethylenic reactants only	523	...Contains solid polymer derived from ethylenic reactants only, one of which contains chalcogen; or solid polymer reacted with ethylenic reactant containing chalcogen
468	...Elemental carbon DNRM	526	...Contains polymer derived from ethylenically unsaturated reactant only
500	..Process of forming a composition of an ethylenically unsaturated reactant or ethylenically unsaturated polymer admixed with nonreactive material (NRM) and a polyester whose polymer backbone was derived through the direct formation of the ester linkage, e.g., polyethylene terephthalate, polycaprolactone, etc., or product thereof	527	...Glass DNRM
501	...Product contains water per se or water of hydration as DNRM or admixed with other designated nonreactant material		
502	....Composition contains water-in-oil or oil-in-water mixture		
503	....Organic nitrogen DNRM		
504	....Organic chalcogen DNRM		
505	...Metal compound other than silicate as DNRM		
506	...Phosphorus DNRM		
507	...Organic sulfur DNRM		
508	...Organic compound containing nitrogen DNRM		

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FOR 000 **CLASS-RELATED FOREIGN DOCUMENTS**

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CLASS 523 SYNTHETIC RESINS OR NATURAL RUBBERS -- PART OF THE CLASS
520 SERIES