U. S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

CLASSIFICATION ORDER 1866

SEPTEMBER 4, 2007

PROJECT C-7029

**The following classification changes will be effected by this order:**

| | **Class** | **Subclass** | **Art Unit** | **Ex'r Search Room** |
|---|---|---|---|---|
| **Abolished:** | 525 | 440 | 1712 | OS0001 |
| **Established:** | 525 | 440.01-440.07, 440.071, 440.072, 440.08, 440.09, 440.11-440.16 | 1712 | OS0001 |

**No other classes were impacted by this order.**

**This order includes the following:**

A. CLASSIFICATION MANUAL CHANGES

B. LISTING OF PRINCIPAL SOURCE OF ESTABLISHED AND DISPOSITION OF ABOLISHED SUBCLASSES

C. CHANGES TO THE USPC-TO-IPC CONCORDANCE

D. DEFINITION CHANGES AND NEW OR ADDITIONAL DEFINITIONS

CLASSIFICATION ORDER 1866

SEPTEMBER 4, 2007

Project No. C-7029

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CLASS 525 SYNTHETIC RESINS OR NATURAL RUBBERS -- PART OF THE CLASS 520 SERIES

SEPTEMBER 2007

This Class 525 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

SYNTHETIC RESINS (Class 520, Subclass 1)

7 .ETHYLENICALLY UNSATURATED REACTANT ADMIXED WITH A PREFORMED REACTION PRODUCT DERIVED FROM: (a) AT LEAST ONE POLYCARBOXYLIC ACID, ESTER, OR ANHYDRIDE; (b) AT LEAST ONE POLYHYDROXY COMPOUND; AND (c) AT LEAST ONE FATTY ACID GLYCEROL ESTER, OR A FATTY ACID OR SALT DERIVED FROM A NATURALLY OCCURRING GLYCERIDE, TALL OIL, OR A TALL OIL FATTY ACID

7.1 ..Mixed in the presence of a specified material

7.2 ..Mixed with silicon-containing reactant or polymer derived therefrom

7.3 ..Mixed with aldehyde or derivative as reactant or polymer derived therefrom

7.4 ..Mixed with previously formed solid polymer or SPFI

8 .ETHYLENICALLY UNSATURATED REACTANT ADMIXED WITH A PREFORMED REACTION PRODUCT DERIVED FROM: (a) AT LEAST ONE POLYCARBOXYLIC ACID, ESTER, OR ANHYDRIDE; (b) AT LEAST ONE POLYHYDROXY COMPOUND; AND (c) AT LEAST ONE NATURAL RESIN, PROTEIN, OR BIOLOGICALLY ACTIVE POLYPEPTIDE, OR CARBOHYDRATE OR DERIVATIVE

10 .ETHYLENICALLY UNSATURATED REACTANT ADMIXED WITH EITHER (A) A POLYMER DERIVED FROM A SATURATED DI- OR HIGHER ESTER OF A POLYCARBOXYLIC ACID AS SOLE REACTANT, OR (B) REACTION PRODUCT OF ONLY POLYCARBOXYLIC ACIDS OR ANHYDRIDES WITH ONLY COMPOUNDS HAVING AT LEAST TWO HYDROXYL GROUPS AT LEAST ONE OF WHICH IS SATURATED AND WHEREIN THE REACTION PRODUCT FORMED IS NOT AFTERTREATED PRIOR TO ADMIXTURE WITH THE UNSATURATED REACTANT EXCEPT WITH A POLYCARBOXYLIC ACID, POLYCARBOXYLIC ACID ANHYDRIDE, OR A POLYOL, AND WHEREIN NO SOLID POLYMER DERIVED FROM ETHYLENIC REACTANTS ONLY IS MIXED THEREWITH

11 ..Mixed in presence of specified material or a polymerizable composition contains a specified material

12 ...Specified material contains boron or silicon atom

13 ...Specified material contains metal atom other than from group IA metal atom (Li, Na, K, Rb, Cs, Fr)

14 ....Material contains Group IB metal atom (Cu, Ag, Au)

15 ....Material contains Group IIB metal atom (Zn, Cd, Hg) or IIIA metal atom (Al, Ga, In, Tl)

16 ....Material contains Group VB metal atom (V, Nb, Ta)

17 ....Material contains Group VIII metal atom (Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt)

18 ....Material contains Group IVA metal atom (Ge, Sn, Pb)

19 ....Material contains Group IIA metal atom (Be, Mg, Ca, Sr, Ba, Ra)

20 ...Specified material contains phosphorus atom

21 ...Specified material contains ketone group

22 ...Specified material contains an aldehyde or derivative thereof

23 ...Specified material contains sulfur atom

24 ....Sulfur is part of heterocyclic ring

25 ...Specified material contains nitrogen atom

26 ....Nitrogen is part of heterocyclic ring

27 ...Specified material contains a peroxy group, i.e., -O-O-

28 ..Mixed with -N=C=X reactant or polymer derived therefrom (X is chalcogen)

29 ..Mixed with silicon-containing reactant or polymer derived therefrom

30 ..Mixed with a solid polymer or specified intermediate condensation product derived from at least one amine-, N-C(=X)- or N-S-(=O)- containing reactant and at least one aldehyde or aldehyde-type reactant (X is chalcogen)

31 ..Mixed with an 1,2-epoxy compound containing more than one 1,2-epoxy group per mole or polymer derived therefrom

32 ..Mixed with a phenolic reactant and an aldehyde or aldehyde-type reactant or reaction product thereof

32.1 ..Polymer derived from polycarboxylic acid and polyhydroxyl compound is derived from at least one polycarboxylic acid reactant which is a dimer or trimer of an ethylenically unsaturated aliphatic monocarboxylic acid having at least ten carbon atoms; or adducts of said unsaturated monocarboxylic acid with an alpha, beta ethylenically unsaturated carboxylic acid or derivative

32.2 ..Ethylenic reactant or polymer derived from polycarboxylic acid or anhydride and polyol is derived from a carbohydrate or derivative

CLASS 525 SYNTHETIC RESINS OR NATURAL RUBBERS -- PART OF THE CLASS 520 SERIES

SEPTEMBER 2007

SYNTHETIC RESINS (Class 520, Subclass 1)

.ETHYLENICALLY UNSATURATED REACTANT ADMIXED WITH EITHER (A) A POLYMER DERIVED FROM A SATURATED DI- OR HIGHER ESTER OF A POLYCARBOXYLIC ACID AS SOLE REACTANT, OR (B) REACTION PRODUCT OF ONLY POLYCARBOXYLIC ACIDS OR ANHYDRIDES WITH ONLY COMPOUNDS HAVING AT LEAST TWO HYDROXYL GROUPS AT LEAST ONE OF WHICH IS SATURATED AND WHEREIN THE REACTION PRODUCT FORMED IS NOT AFTERTREATED PRIOR TO ADMIXTURE WITH THE UNSATURATED REACTANT EXCEPT WITH A POLYCARBOXYLIC ACID, POLYCARBOXYLIC ACID ANHYDRIDE, OR A POLYOL, AND WHEREIN NO SOLID POLYMER DERIVED FROM ETHYLENIC REACTANTS ONLY IS MIXED THEREWITH

33 ..Polymer derived from polycarboxylic acid and polyhydroxy compound is derived from at least one polycarboxylic acid containing at least three carboxyl groups or more than one anhydride group

34 ..Polymer derived from polyhydroxy reactant and polycarboxylic acid is derived from at least one reactant containing at least three hydroxyl groups

35 ..Polymer derived from polycarboxylic acid or anhydride and polyhydroxy compound is derived from at least two polycarboxylic acid reactants or two polycarboxylic acid anhydrides or mixture thereof

36 ...At least one of said polycarboxylic acid reactants or anhydrides contains ethylenic unsaturation

37 ....Polymer mixed with unsaturated reactant containing phosphorus atom

38 ....Polymer mixed with unsaturated reactant containing nitrogen atom

39 ....Polymer mixed with unsaturated reactant containing carboxylic acid, ester, salt or anhydride group

40 ....Polymer mixed with unsaturated reactant containing aryl ring

41 ..Polymer derived from polycarboxylic acid or anhydride and polyhydroxy compound is derived from at least two polyhydroxy compounds

42 ..Polymer derived from polycarboxylic acid or anhydride and polyhydroxy compound is derived from polyhydroxy compound containing ether linkage

43 ..Polymer derived from polycarboxylic acid or anhydride and polyhydroxy compound wherein at least one of the reactants contains ethylenic unsaturation

44 ...Polymer mixed with unsaturated reactant containing two or more unsaturated groups

45 ....Wherein unsaturated reactant contains three nitrogen atoms in the same ring

46 ...Polymer mixed with unsaturated reactant containing nitrogen atom

47 ....Unsaturated reactant contains nitrogen heterocycle

48 ...Polymer mixed with unsaturated carboxylic acid, ester, salt, or anhydride

49 ...Polymer mixed with unsaturated aromatic compound

50 .MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

51 ..Effecting a change in a process in response to a measurement or test

52 ..Utilizing a tubular or loop reactor

53 ..Utilizing an apparatus with two or more physically distinct zones

54 ..Removing and recycling material from one zone to another

54.1 ..Containing chemically combined protein or biologically active polypeptide

54.11 ...Solid polymer treated by stepwise reaction with naturally occurring alpha or beta amino acid or a material which contains a residue of said amino acid, e.g., a functionally protected amino acid, etc.

54.2 ..Previously formed solid polymer chemically reacted with carbohydrate or derivative

54.21 ...Cellulose or derivative as chemical reactant

54.22 ....Previously formed solid polymer is derived from N=C=X reactant or contains N=C=X group wherein X is chalcogen

54.23 ....Previously formed solid polymer is derived from ethylenically unsaturated reactants only

54.24 ...Starch, starch flour or meal, or derivative as chemical reactant

54.26 ....Previously formed solid polymer derived from ethylenic reactants only

54.3 ..Previously formed solid polymer containing chemically combined carbohydrate admixed with a chemical treating or ethylenic agent, SPFI, SICP, or solid polymer

54.31 ...Carbohydrate containing polymer is derived from starch, or starch containing flour or meal

54.32 ....Carbohydrate containing polymer derived from acrylonitrile

SYNTHETIC RESINS (Class 520, Subclass 1)
.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

54.4 ..Containing chemically combined natural resin or derivative thereof other than tall oil

54.41 ...Shellac

54.42 ...Previously formed solid polymer chemically reacted with natural resin or derivative

54.44 ....At least one previously formed solid polymer derived from ethylenic monomers only

54.45 ...Previously formed solid polymer containing chemically combined natural resin or derivative admixed with an ethylenic agent or a chemical treating agent other than SICP or SPFI

54.5 ..Chemically combined coal, bituminous material, extract, or derivative thereof; oil shale; or fatty still residue

55 ..At least one solid polymer derived from ethylenic reactants only

56 ...Polyvinyl alcohol

57 ....With solid polymer derived from ethylenic reactants only

58 ....With SICP, SPFI, or polymer thereof

59 ....With ethylenic reactant

60 ....Interpolymers

61 ....Chemical modification utilizing a chemical treating agent

62 ....Processes only of preparing polyvinyl alcohol

63 ...Mixing of solid graft or graft-type copolymer with other solid polymer wherein one of said solid polymers is not derived from ethylenic reactants only; mixing of said polymer mixture with a chemical treating agent; or mixing of graft or graft-type copolymer with a SICP or SPFI; or processes of forming or reacting; or the resultant product of any of the above operations

64 ....Solid graft or graft-type copolymer derived from ethylenic reactants only

65 .....With saturated 1,2-epoxy reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom; or with solid copolymer derived from at least one unsaturated 1,2-epoxy reactant wherein the epoxy reactant contains more than one 1,2-epoxy group per mole and at least one saturated reactant

66 .....With solid polymer derived from at least one nitrogen-containing reactant wherein at least one of the reactants forming the solid polymer is saturated; or with SPFI wherein at least one of the necessary ingredients contains a nitrogen atom or with a reaction product thereof; or with nitrogen-containing SICP

67 .....With solid polymer derived from at least one hal-C(=O)-hal, O-C(=O)-O or hal-C(=O)-O- reactant wherein at least one of the reactants forming the solid polymer is saturated; or with SPFI wherein at least one of the necessary ingredients is a hal-C(=O)-hal, O-C(=O)-O, or hal-C(=O)-O containing reactant or reaction product thereof; or with a SICP containing a hal-C(=O)- or O-C(=O)-O- group

68 .....With solid polymer derived from at least one phenolic reactant wherein at least one of the reactants forming the solid polymer is saturated; or with SPFI wherein at least one of the necessary ingredients is a phenolic reactant or with a reaction product thereof; or with phenolic-containing SICP

69 ....Solid graft or graft-type copolymer contains backbone derived from ethylenic reactants only

70 ...Mixing of solid graft or graft-type copolymer derived from ethylenic reactants only with other solid polymer derived from ethylenic reactants only; or treating said mixture with chemical treating agent; or processes of forming or reacting; or the resultant product of any of the above operations

71 ....Contains two or more graft or graft-type copolymers or a graft or a graft type copolymer and at least one block or block-type copolymer

72 ....Mixture contains solid polymer derived from reactants containing an atom other than C, H, O, N, or chlorine

73 ....Mixture contains solid polymer derived from reactant containing nitrogen heterocycle

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...Mixing of solid graft or graft-type copolymer derived from ethylenic reactants only with other solid polymer derived from ethylenic reactants only; or treating said mixture with chemical treating agent; or processes of forming or reacting; or the resultant product of any of the above operations

74 ....Mixture contains solid polymer derived from reactant containing oxygen heterocycle

75 ....Mixture contains solid polymer derived from reactant containing a fused- or bridged-ring system or from cycloaliphatic reactant

76 ....Mixture contains solid polymer derived from chlorine-containing reactant other than from vinyl(idene) chloride

77 ....Mixture contains solid polymer derived from reactant containing nitrogen other than from (meth)acrylonitrile

78 ....Mixture contains solid polymer derived from reactant containing carboxylic acid group

79 ....Mixture contains solid polymer derived from reactant containing ether or hydroxyl group

80 ....Mixture contains solid polymer derived from reactant containing carboxylic acid ester group

81 .....Reactant contains at least two ester groups

82 ......Ester derived from a polyol

83 .....Substrate polymer derived from hydrocarbon containing plural unsaturation

84 ......Polymer substrate derived from hydrocarbon reactants only

85 .....Polymer substrate derived from an unsaturated carboxylic acid ester

86 ....Mixture contains solid polymer derived from nonaromatic reactant containing plural ethylenically unsaturated groups

87 .....Solid polymer other than graft or graft-type derived from nonaromatic plural ethylenically unsaturated reactant

88 ...Mixing of solid block or block-type copolymer with other solid polymer; mixing of said polymer mixture with a chemical treating agent; mixing of a block or block-type copolymer with SICP or with SPFI; or processes of forming or reacting; or the resultant product of any of the above operations

89 ....Mixture contains two or more solid block or block-type copolymers

90 ....Mixture contains solid block copolymer wherein at least one block is derived from ethylenic reactants only and at least one block is derived from at least one saturated reactant

91 .....Block derived from at least one saturated reactant containing a heterocycle

92 R ....Mixture contains solid polymer derived from at least one saturated reactant, SICP, or SPFI

92 A .....Solid block or block-type copolymer derived from saturated reactants only

92 B .....Solid polymer derived from a lactam; from an amino carboxylic acid or derivative; from a polyamine and a polycarboxylic acid or derivative

92 C .....Solid polymer derived from -N=C=X reactant, wherein X is chalcogen

92 D .....Solid polymer derived solely from a phenolic reactant or derivative thereof, wherein no reactant contains a plurality of methylol groups

92 E .....Solid polymer derived form -O-C(=O)-O- or hal-C(=O)- containing reactant

92 F .....Solid polymer derived from polyhydroxy reactant and polycarboxylic acid or derivative

92 G .....Solid polymer derived from silicon-containing reactant

92 H .....Solid polymer derived from saturated 1,2-epoxy reactant containing more than one 1,2-epoxy group per molecule

92 J .....Solid polymer derived from sulfur-containing reactant

92 K .....Solid polymer derived from saturated aldehyde or aldehyde derivative material

92 L .....Solid polymer derived from heterocyclic material

92 M .....Solid polymer derived from saturated ketone reactant

93 ....Mixture contains solid polymer derived from reactant containing chalcogen

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...Mixing of solid block or block-type copolymer with other solid polymer; mixing of said polymer mixture with a chemical treating agent; mixing of a block or block-type copolymer with SICP or with SPFI; or processes of forming or reacting; or the resultant product of any of the above operations

....Mixture contains solid polymer derived from reactant containing chalcogen

94 .....Solid block or block-type copolymer derived from reactant containing carboxylic acid ester group

95 ....Mixture contains solid block or block-type copolymer derived from ethylenically unsaturated hydrocarbon reactants only at least one of which contains at least four carbon atoms

96 .....With solid polymer derived from reactant containing an atom other than C, H or chalcogen

97 .....Mixture contains solid polymer derived from reactant containing a fused- or bridged-ring system

98 .....Solid block or block-type copolymer derived from reactant containing plural unsaturation

99 .....With solid polymer derived from reactant containing plural unsaturation

100 ...With saturated Si-C or Si-H reactant or polymer thereof; or with solid copolymer derived from at least one Si-C or Si-H reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients contains a Si-C or Si-H bond or with a reaction product thereof; or with a SICP containing a Si-H or Si-C bond

101 ....Contacting with nonsilicon-containing SICP, nonsilicon-containing SPFI, or polymer thereof; or with two or more solid polymers

102 ....Si-H or Si-C reactant contains an atom other than C, H, O, or Si bonded to a carbon atom

103 ....Solid polymer from ethylenic reactants only is derived from heterocyclic reactant

104 ....Solid polymer from ethylenic reactants only is derived from reactant containing halogen atom

105 ....Solid polymer from ethylenic reactants only is derived from plural unsaturated hydrocarbon

106 ....Solid polymer from ethylenic reactants only is derived from unsaturated hydrocarbon

107 ...With saturated 1,2-epoxy reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom; or with solid copolymer derived from at least one saturated reactant and at least one unsaturated 1,2-epoxy reactant wherein the epoxy reactant contains more than one 1,2-epoxy group per mole

108 ....Contacting two or more solid polymers derived from ethylenic reactants only with a poly 1,2-epoxy-containing reactant; or contacting a solid polymer derived from ethylenic reactants only with a poly 1,2-epoxy-containing reactant and subsequently contacting with an additional polymer derived from ethylenic reactants only

109 ....With phenolic reactant or polymer thereof and is free of 1,2-epoxy groups

110 ....With reactant which is an aldehyde, aldehyde derivative, or polymer thereof, and which is free of an 1,2-epoxy group (included herein are alkylated methylol groups)

111 ....With reactant which is free of an 1,2-epoxy group and which contains a -N=C=X group or polymer thereof (X is chalcogen); or with a polyol and a polycarboxylic acid or reaction product thereof which is free of an 1,2 epoxy group

111.5 ....With a reactant which is a fatty acid glycerol ester, a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or a fatty acid derived from tall oil

112 ....Contacting polymer from ethylenic reactants only with ethylenic reactant wherein said contacting is either concurrent with or subsequent to the contacting with the saturated poly 1,2-epoxy reactant

113 ....With nitrogen-containing reactant, or wherein the poly 1,2-epoxy reactant contains a nitrogen atom

114 ....With additional heterocyclic reactant free of 1,2-epoxy group

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...With saturated 1,2-epoxy reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom; or with solid copolymer derived from at least one saturated reactant and at least one unsaturated 1,2-epoxy reactant wherein the epoxy reactant contains more than one 1,2-epoxy group per mole

115 ....Poly 1,2-epoxy reactant contains an atom other than C, H, or O

116 ....Polymer derived from ethylenic reactants only derived from reactant containing an atom other than C, H, N, O, or halogen

117 ....Polymer derived from ethylenic reactants only derived from heterocyclic reactant

118 ....Polymer derived from ethylenic reactants only derived from reactant containing an alcohol or ether group (includes phenols)

119 ....Polymer derived from ethylenic reactants only derived from reactant containing a -COOH group

120 ....Polymer derived from ethylenic reactants only derived from nonaromatic monoolefin

121 ....Polymer derived from ethylenic reactants only derived from reactant containing a halogen atom

122 ....Polymer derived from ethylenic reactants only derived from unsaturated hydrocarbon

123 ...With saturated -N=C=X (X is chalcogen) reactant or polymer thereof; or with solid copolymer derived from at least one -N=C=X reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients contains a -N=C=X group or with a reaction product thereof; or with SICP containing a -N=C=X group

124 ....Blocked isocyanate reactant

125 ....Contacting two or more solid polymers derived from ethylenic reactants only with a -N=C=X reactant or polymer thereof; or contacting a polymer derived from an ethylenic reactant only with a -N=C=X reactant or polymer thereof and subsequently adding thereto a solid polymer derived only from ethylenic reactants

126 ....Contacting solid polymer from ethylenic reactants only with ethylenic reactant wherein said contacting is either concurrent with or subsequent to contacting of said solid polymer with the -N=C=X reactant or polymer thereof

127 ....Contacting with a -N=C=X-containing reactant which has been previously reacted with an organic compound containing a hydroxyl, amine, or -C(=O)-O- group

128 .....-N=C=X reactant has been previously reacted with an organic amine

129 .....Solid polymer from ethylenic reactants only derived from halogen-containing reactant

130 .....Solid polymer from ethylenic reactants only derived from hydrocarbon reactant

131 ....Contacting with -N=C=X-containing reactant and with additional organic reactant containing a hydroxyl or amine group or polymer thereof

132 ...With saturated phenolic reactant or polymer thereof; or with solid copolymer derived from at least one phenolic reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is a phenolic reactant or with a reaction product thereof; or with a SICP containing a phenolic group Si-H or Si-C bond

133 ....Contacting two or more solid polymers with a phenolic reactant; or contacting a solid polymer with a phenolic reactant and subsequently contacting the treated polymer with an additional solid polymer

133.5 ....With a reactant which is a fatty acid glycerol ester, a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or a fatty acid derived from tall oil

134 ....Contacting with aldehyde or aldehyde-type reactant or polymer therefrom

135 .....At least two distinct phenols, phenol ethers, inorganic phenolates, or mixtures thereof prior to reaction with aldehyde or aldehyde-type reactant derived from tall oil

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...With saturated phenolic reactant or polymer thereof; or with solid copolymer derived from at least one phenolic reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is a phenolic reactant or with a reaction product thereof; or with a SICP containing a phenolic group Si-H or Si-C bond

....Contacting with aldehyde or aldehyde-type reactant or polymer therefrom

136 .....Phenolic reactant prior to contact with aldehyde or aldehyde-type reactant contains an atom other than C, H, or O

137 .....Phenolic reactant prior to contact with aldehyde or aldehyde-type reactant contains at least two aryl rings each of which contains phenolic substituents

138 .....With nonethylenic, nonaldehyde, or nonaldehyde-type reactant containing an atom other than C, H, or O

139 .....Solid polymer derived from ethylenic reactants only is derived from reactant containing at least two ethylenic groups

140 .....Phenolic reactant has at least two nuclear carbon atoms directly bonded to extracyclic carbon atoms which extracyclic carbon atoms are not part of a methylol group

141 .....Solid polymer from ethylenic reactants only is derived from both a reactant containing two ethylenic groups and an acyclic monoethylenic hydrocarbon

142 .....Solid polymer derived from ethylenic reactants only is derived from a nitrogen-containing reactant

143 .....Solid polymer derived from ethylenic reactants only is derived from a reactant containing a carboxylic acid or derivative thereof

144 .....Solid polymer derived from ethylenic reactants only is derived from a reactant containing at least one halogen atom

145 .....Solid polymer derived from ethylenic reactants only is derived from an acyclic hydrocarbon

146 ....With a -O-C(=O)-O-, -O-C(=O)-hal or hal-C(=O)-hal group-containing reactant or polymer thereof

147 .....Two or more diverse phenolic reactants; or phenolic reactant contains an atom other than C, H, or O

148 .....Solid polymer derived from ethylenic reactants only is derived from a reactant containing a carboxylic acid or derivative thereof

149 ....Contains ethylenic reactant other than from a solid polymer derived from ethylenic reactants only, e.g., reaction product from a phenol and unsaturated hydrocarbon, etc.

150 ....Phenolic reactant contains a phosphorus or sulfur atom or with phosphorus- or sulfur-containing reactant

151 ....Solid polymer derived from ethylenic reactants only is derived from a reactant containing at least one halogen atom

152 ....Solid polymer derived from ethylenic reactants only is derived from a reactant containing a polycyclic ring system or two or more ethylenic groups

153 ...With saturated ketone reactant or polymer thereof; or with solid copolymer derived from at least one ketone reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is a ketone or with a reaction product thereof; or with a SICP containing a ketone group

154 ...With saturated aldehyde or aldehyde derivative (including methylol ethers or condensates) reactant or solid polymer thereof; or with solid copolymer derived from at least one aldehyde or aldehyde derivative reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is an aldehyde or aldehyde derivative reactant or with a reaction product thereof; or with SICP containing an aldehyde or aldehyde derivative

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...With saturated aldehyde or aldehyde derivative (including methylol ethers or condensates) reactant or solid polymer thereof; or with solid copolymer derived from at least one aldehyde or aldehyde derivative reactant wherein at least one of the reactants forming the solid copolymer is saturated; or with SPFI wherein at least one of the necessary ingredients is an aldehyde or aldehyde derivative reactant or with a reaction product thereof; or with SICP containing an aldehyde or aldehyde derivative

155 ....Contacting two or more solid polymers derived from ethylenic reactants only with an aldehyde or aldehyde-type reactant; or contacting a polymer derived from ethylenic reactant and subsequently contacting with a solid polymer derived from ethylenic reactants only

156 ....Contacting with a hydrocarbon and an aldehyde or aldehyde derivative as reactants at least one of which is saturated, their condensate or solid polymer thereof

157 ....Contacting with an amine, a material containing a N-C(=X)- or N-S(=O)- (X is chalcogen) reactant and an aldehyde or aldehyde derivative at least one of which is saturated, their condensate or solid polymer thereof

158 .....Reactant, condensate, or solid polymer contains an element other than C, H, N, or O; or wherein a coreactant is not an aldehyde or aldehyde-type reactant, alcohol, amine, or reactant containing a N-C(=O)- group

159 .....Reactant derived from alcohol containing an aryl group or eight or more carbon atoms

160 .....Solid polymer derived from ethylenic reactants only contains an element other than C, H, O, or N

161 .....Solid polymer derived from ethylenic reactants only derived from reactant containing a heterocyclic ring or fused-, bridged-ring system excluding an anhydride group which produces the fused- or bridged-ring system or heterocyclic ring

162 .....Solid polymer derived from ethylenic reactant only derived from reactant containing hydroxyl or ether group

163 .....Solid polymer derived from ethylenic reactants only containing a carboxylic acid, ester, or anhydride group

164 .....Solid polymer derived from unsaturated hydrocarbon

165 ...With polycarboxylic acid or derivative and a polyol at least one of which is saturated, a condensate or solid polymer thereof; or with solid polymer derived from at least one polycarboxylic acid or derivative and at least one polyol wherein at least one the reactants forming the solid polymer is saturated

166 ....Two or more solid polymers present other than derived from a polycarboxylic acid or derivative and a polyol

167 ....Polycarboxylic acid or derivative or polyol contains an atom other than C, H, or O; or wherein a polycarboxylic acid or derivative or polyol or condensate thereof is reacted with a reactant containing atoms other than C, H, or O prior to blending with the solid polymer; or wherein a coreactant with the polycarboxylic acid or derivative or polyol contains an atom other than C, H, or O

167.5 ....With a reactant which is a fatty acid glycerol ester, a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or a fatty acid derived from tall oil

168 ....Polycarboxylic acid or derivative, polyol, or other coreactant contains an ethylenic group; or wherein a condensate thereof has been prepared from a polycarboxylic acid or derivative and a polyol and subsequently reacted with an ethylenic reactant

169 .....Solid polymer derived from ethylenic reactants only derived from at least one reactant containing an atom other than C, H, or O

170 .....Solid polymer derived from ethylenic reactants only derived from at least one reactant containing an oxygen atom

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...With polycarboxylic acid or derivative and a polyol at least one of which is saturated, a condensate or solid polymer thereof; or with solid polymer derived from at least one polycarboxylic acid or derivative and at least one polyol wherein at least one the reactants forming the solid polymer is saturated

....Polycarboxylic acid or derivative, polyol, or other coreactant contains an ethylenic group; or wherein a condensate thereof has been prepared from a polycarboxylic acid or derivative and a polyol and subsequently reacted with an ethylenic reactant

171 .....Solid polymer derived from ethylenic reactants only derived from at least one hydrocarbon reactant containing at least two ethylenic groups

172 ....Polycarboxylic acid or derivative contains three or more carboxylic acid groups or derivatives thereof; or wherein a polyol contains at least three hydroxyl groups

173 ....From two or more polyols

174 ....From two or more carboxylic acids or derivatives thereof

175 ....Solid polymer derived from ethylenic reactants only derived from at least one reactant containing an atom other than C, H, O, or Hal

176 ....Solid polymer derived from ethylenic reactants only derived from at least one reactant containing an oxygen atom

177 ....Solid polymer derived from ethylenic reactants only derived from unsaturated hydrocarbon

178 ...With a polycarboxylic acid or derivative and a polyamine or the corresponding salt thereof; or with a lactam; or with an aminocarboxylic acid; or with the corresponding polymers; and wherein the monomer or polymer was derived from at least one saturated reactant

179 ....Two or more solid polymers other than prepared from a polycarboxylic acid or derivative and a polyamine, a lactam, an aminocarboxylic acid or derivative, or from a polyamine salt of a polycarboxylic acid

180 ....Polycarboxylic acid or derivative contains three or more carboxylic acid groups; or polyamine contains three or more amino groups; or from an amino containing polycarboxylic acid or derivative other than amine solely in salt form; or from polyamino carboxylic acid or derivative other than wherein amino groups are solely in salt form

181 ....With ethylenically unsaturated reactant; or reactant contains a heterocyclic ring other than solely as a lactam or cyclic anhydride of a polycarboxylic acid

182 ....Solid polymer derived from ethylenically unsaturated reactant only is one derived from a reactant containing a heterocyclic ring and is other than solely a cyclic anhydride of a polycarboxylic acid

183 ....Solid polymer derived from ethylenically unsaturated reactant only is derived from a reactant containing a carboxylic acid or derivative

184 ....Solid polymer derived from ethylenically unsaturated hydrocarbon

185 ...With additional solid polymer derived from at least one nonethylenic reactant

186 ....At least one reactant which forms additional polymer contains a heterocyclic ring

187 .....Heterocyclic ring is an 1,2-epoxy ring

188 ....At least one reactant which forms additional polymer contains a phosphorus atom

189 ....At least one reactant which forms additional polymer contains a sulfur atom

190 ....At least one reactant which forms additional polymer contains a carboxylic acid or derivative

191 ...Polymer mixture of two or more solid polymers derived from ethylenically unsaturated reactants only; or mixtures of said polymer mixture with a chemical treating agent; or products or processes of preparing any of the above mixtures

192 ....Treating polymer or polymer mixture with a chemical treating agent other than solid polymer

193 .....Agent contains an ethylenic group

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...Polymer mixture of two or more solid polymers derived from ethylenically unsaturated reactants only; or mixtures of said polymer mixture with a chemical treating agent; or products or processes of preparing any of the above mixtures

....Treating polymer or polymer mixture with a chemical treating agent other than solid polymer

194 .....Agent is an organic material

195 ......Contains a metal atom

196 .....Agent contains a metal atom

197 ....Specified blending process

198 .....With subsequent physical treatment

199 ....Solid polymer derived from fluorine-containing ethylenic reactant

200 .....Fluorine reactant contains atoms other than C, H, or Hal

201 ....Solid polymer derived from metal-containing ethylenic reactant

202 ....Solid polymer derived from reactant containing an acetylenic group

203 ....Solid polymer derived from ethylenic reactant containing a heterocyclic nitrogen

204 .....Heterocyclic reactant contains at least two hetero atoms in the same ring and at least one of which is nitrogen

205 .....Heterocyclic reactant is an imide or lactam

206 ....Solid polymer derived from reactant containing a chalcogen atom (O, S, Se, Te) as part of a heterocyclic ring

207 .....Heterocyclic reactant contains anhydride group

208 .....Heterocyclic reactant contains 1,2-epoxy group

209 ....Solid polymer derived from reactant containing elements other than C, H, O, N, S, or Cl

210 ....Solid polymer derived from reactant containing a fused- or bridged-ring system

211 .....Fused- or bridged-ring reactant contains at least two ethylenic groups

212 ....Solid polymer derived from sulfur-containing reactant

213 ....Solid polymer derived from chlorine-containing reactant other than vinyl(idene) chloride

214 .....Halogenated hydrocarbon other than vinyl(idene) chloride

215 ......Halogenated hydrocarbon contains at least two ethylenic groups and is devoid of an aryl ring

216 ....Solid polymer derived from cycloaliphatic-containing reactant

217 ....Solid polymer derived from reactant containing nitrogen atom other than from (meth)acrylonitrile

218 .....Nitrogen reactant contains a carboxylic acid amide group

219 ....Solid polymer derived from reactant containing a phenolic group

220 ....Solid polymer derived from reactant containing a carbonyl group other than as part of a carboxylic acid or derivative

221 ....Solid polymer derived from reactant containing a carboxylic acid group

222 ....Solid polymer derived from reactant containing a carboxylic acid ester group

223 .....Ester contains an oxygen atom other than as part of a carboxylic acid ester group

224 .....Ester derived from both an unsaturated carboxylic acid and an unsaturated alcohol

225 .....Ester contains at least two carboxylic acid ester groups

226 ......Ester derived from polyol

227 .....Ester derived from an unsaturated carboxylic acid

228 ......At least two polymers derived from carboxylic acid ester reactants

229 .......Ester derived from an unsaturated alcohol

230 ......Polymer derived from nitrogen-containing reactant

231 ....Solid polymer derived from oxygen-containing reactant

232 ....Solid polymer derived from reactant containing at least two ethylenic groups and is devoid of aryl ring

233 .....Polymer derived from nitrogen-containing reactant

234 ......At least two polymers derived from nitrogen-containing reactants

235 .....Polymer derived from halogen-containing reactant

236 .....At least two polymers derived from reactants containing two or more ethylenic groups and devoid of an aryl ring

SYNTHETIC RESINS (Class 520, Subclass 1)
.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS
..At least one solid polymer derived from ethylenic reactants only
...Polymer mixture of two or more solid polymers derived from ethylenically unsaturated reactants only; or mixtures of said polymer mixture with a chemical treating agent; or products or processes of preparing any of the above mixtures
....Solid polymer derived from reactant containing at least two ethylenic groups and is devoid of aryl ring
.....At least two polymers derived from reactants containing two or more ethylenic groups and devoid of an aryl ring
237 ......At least one of these polymers is derived from two or more reactants
238 ....Solid polymer derived from (meth)acrylonitrile
239 ....Solid polymer derived from vinyl(idene) chloride
240 ....Solid polymer derived from ethylene or propylene
241 ....Solid polymer derived from an aromatic hydrocarbon reactant
242 ...Polymer derived from ethylenic reactants only mixed with ethylenic reactant
243 ....Reactions with ethylenic reactants in two or more diverse phases, e.g., bulk, emulsion, melt, solution, etc.
244 ....Contacting a solid polymer derived from ethylenic reactants only with an ethylenic reactant in the presence of a specified material
245 .....Specified material contains transition metal atom
246 ......In presence of water
247 ......Contains nontransition metal atom
248 .....Specified material contains a carbon or hydrogen atom bonded directly to a metal atom
249 ......Metal atom is aluminum
250 ......Metal atom is Group IA metal atom (Li, Na, K, Rb, Cs, Fr)
251 .....Specified material contains a boron atom
252 .....Specified material is a carbohydrate or is a solid synthetic polymer not intended to be in the final product
253 ......Material contains a free alcohol group or is alcoholate thereof
254 .....Specified material contains silicon atom
255 .....Specified material contains a phosphorus atom
256 .....Specified material contains a heterocyclic ring
257 .....Specified material contains a ketone group
258 .....Specified material contains an ether group
259 .....Specified material contains an organic nitrogen compound
260 ......Organic nitrogen compound contains an azo group, i.e., -N=N-
261 .....Specified material contains an organic sulfur compound
262 .....Specified material contains a carboxylic acid or derivative
263 .....Specified material contains a peroxy group, i.e., -O-O-
264 ......Contains nonperoxy compound or inorganic peroxy compound
265 ......Aromatic or cycloaliphatic peroxy compound
266 .....Specified material contains an organic chalcogen compound
267 ....Including step of preparing a polymer in the presence of a specified material and in the absence of a preformed polymer derived from ethylenic reactant only
268 .....Specified material contains a transition metal atom
269 ......Transition metal is other than Group IVB, VB, or VIB metal atom
270 ......With nonmetal, nonhydrocarbon compound
271 .....Specified material contains a Group IA atom in elemental form or bonded to hydrogen or carbon
272 ......Contains an atom other than Group IA, C, or H
273 .....Specified material contains a compound containing a peroxy group, i.e., -O O-
274 ....Ethylenic reactant contains a metal atom
275 ....Ethylenic reactant contains an acetylenic group
276 ....Ethylenic reactant contains a fluorine atom
277 ....Ethylenic reactant contains a carbonate group
278 ....Ethylenic reactant contains a carbamate group
279 ....Ethylenic reactant contains nitrogen heterocycle, e.g., pyridine, diazines, etc.
280 .....Block copolymer

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...Polymer derived from ethylenic reactants only mixed with ethylenic reactant

....Ethylenic reactant contains nitrogen heterocycle, e.g., pyridine, diazines, etc.

281 .....Nitrogen heterocycle contains at least two nitrogen atoms in the same ring

282 .....Imide

283 .....Lactam

284 ....Ethylenic reactant contains a chalcogen heterocycle

285 .....Cyclic anhydride

286 .....Three-membered ring containing two carbon and one chalcogen atom

287 ....Ethylenic reactant contains a phosphorus atom

288 ....Ethylenic reactant contains atoms other than C, H, O, N, S, or Cl

289 ....Ethylenic reactant contains a fused- or bridged-ring system

290 .....Dicyclopentadiene-containing group

291 ....Ethylenic reactant contains a sulfur atom

292 ....Ethylenic reactant contains a chlorine atom and is other than vinyl(idene) chloride

293 ....Ethylenic material contains a nitrogen atom and is other than (meth)acrylonitrile

294 .....Block copolymer derived from nitrogen-containing reactant

295 .....Nitrogen atom is part of a nitrile group and is other than (meth)acrylonitrile

296 .....Nitrogen atom is part of a carboxylic acid amide group

297 ....Ethylenic reactant contains a cycloaliphatic group

298 ....Ethylenic reactant contains an oxygen atom

299 .....Block copolymer derived from oxygen-containing reactant

300 .....Oxygen atom is part of a ketone or ketene group

301 .....Oxygen atom is part of a carboxylic acid group

301.5 ......Unsaturated fatty acid derived from a naturally occurring glyceride, tall oil, or an unsaturated fatty acid derived from tall oil

302 .....Oxygen atom is part of a carboxylic acid ester group

303 ......Ester contains an oxygen atom other than as a carboxylic acid ester group

304 ......Ester contains at least two carboxylic acid ester groups

305 .......Ester is derived from a polyol

306 .......Ester is derived from an unsaturated alcohol

307 ......Ester is derived from an unsaturated carboxylic acid and an unsaturated alcohol

308 ......Ester is derived from an unsaturated carboxylic acid

309 .......Ester derived from an unsaturated carboxylic acid is reacted in the presence of a solid polymer

310 ........Ester reactant derived from an unsaturated carboxylic acid is reacted in the presence of a solid polymer substrate derived from a polyene hydrocarbon

311 ......Ester reactant derived from an unsaturated alcohol is reacted in the presence of a solid polymer

312 .....Oxygen atom is part of an ether group

313 ....Ethylenic reactant contains at least two unsaturated groups and is devoid of an aromatic group

314 .....Block copolymer derived from reactant containing at least two unsaturated groups and is free of an aromatic group

315 .....Ethylenic reactant reacted in the presence of a solid polymer substrate derived from reactant containing two unsaturated groups and is devoid of an aromatic group

316 ......Ethylenic reactant is an aromatic hydrocarbon

317 ....Ethylenic reactant is vinyl(idene) chloride

318 .....Block copolymer derived from vinyl(idene) chloride

319 ....Ethylenic reactant is acyclic hydrocarbon

320 .....Acyclic hydrocarbon contains five or more carbon atoms

321 ......Block copolymer derived from acyclic hydrocarbon containing five or more carbon atoms

322 .....Acyclic hydrocarbon is propylene

323 ......Block copolymer derived from propylene

324 .....Acyclic hydrocarbon is ethylene

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

326.1 ...Chemically after treated solid polymers derived from ethylenically unsaturated monomers only

326.2 ....Polymer derived from fluorine monomer

326.3 .....Vulcanized or crosslinked in presence of chemical treating agent

326.4 .....Halogen containing chemical treating agent; or dehalogenated

326.5 ....Polymer derived from silicon monomer

326.6 ....Polymer derived from monomer containing atom other than: C, H, N, O, S, halogen or group IA or IIA carboxylate

326.7 ....Polymer derived from monomer containing nitrogen atom as part of a heterocyclic ring

326.8 .....Oxygen atom in ring or bonded directly to the nuclear carbon of ring monomer

326.9 .....Lactam monomer, e.g., vinyl pyrrolidone, etc.

327.1 .....6 membered ring containing 5 carbons and 1 nitrogen, monomer, e.g., vinyl pyridine, etc.

327.2 ....Polymer derived from monomer containing chalcogen as part of heterocyclic ring other than solely as cyclic anhydride of ethylenically unsaturated dicarboxylic acid

327.3 .....Three membered chalcogen ring monomer, e.g., oxirane, etc.

327.4 ....Polymer derived from carboxylic acid anhydride monomer

327.5 .....Sulfur containing chemical treating agent

327.6 .....Nitrogen containing chemical treating agent other than unsubstituted ammonium as sole nitrogen

327.7 .....Esterified, i.e., preparation of COOR linkage

327.8 .....Hydrolyzed; neutralized; or metal containing chemical treating agent

327.9 ....Polymer from unsaturated petroleum hydrocarbon fraction as monomer

328.1 ....Polymer derived from acetylenic monomer

328.2 ....Polymer derived from monomer containing nitrogen other than: unsubstituted ammonium, acrylonitrile, acrylamide, methylolacrylamide and the corresponding methacryl materials

328.3 .....At least one monomer containing two or more ethylenic groups

328.4 .....Monomer containing two or more nitrogen atoms, or two or more nitrogen containing monomers

328.5 ....Polymer derived from sulfur monomer

328.6 ....Polymer derived from ketone monomer

328.7 ....Polymer derived from aldehyde monomer

328.8 ....Polymer derived from alcohol monomer

328.9 ....Polymer derived from ether monomer

329.1 ....Polymer derived from acrylonitrile or methacrylonitrile monomer

329.2 .....Interpolymers

329.3 .....Contains monomer having two or more ethylenic groups

329.4 ....Polymer derived from acrylamide or methacrylamide monomer

329.5 ....Polymer derived from carboxylic acid or derivative monomer other than: vinyl acetate; or acrylic-or-methacrylic-acid, or derivatives

329.6 .....Butene dioic acid or derivative monomer

329.7 ....Polymer derived from acrylic or methacrylic acids, acid halides or salt monomers

329.8 .....Sulfur or phosphorus containing chemical treating agent

329.9 .....Nitrogen containing chemical treating agent

330.1 .....Esterified, i.e., preparation of COOR linkage

330.2 .....Hydrolyzed; neutralized; or metal containing chemical treating agent

330.3 ....Polymer derived from acrylic or methacrylic esters, or vinyl acetate monomer

330.4 .....Sulfur or phosphorus containing chemical treating agent

330.5 .....Nitrogen containing chemical treating agent

330.6 .....Alcoholized; transesterified; hydrolyzed; or metal containing chemical treating agent; e.g., saponified, etc.

330.7 ....Polymer derived from halogen monomer

330.8 .....At least one monomer contains two or more ethylenic groups

330.9 .....Vulcanized or crosslinked, in the presence of a chemical treating agent, e.g., cured, etc.

331.1 .....Nitrogen containing chemical treating agent

331.2 .....Halogen containing chemical treating agent

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...Chemically after treated solid polymers derived from ethylenically unsaturated monomers only

....Polymer derived from halogen monomer

.....At least one monomer contains two or more ethylenic groups

331.3 .....Nitrogen containing chemical treating agent

331.4 .....Monomer contains chlorine

331.5 .....Vinyl chloride or vinylidene chloride

331.6 .....Halogen containing chemical treating agent

331.7 ....Ethylene-propylene terpolymer, e.g., EPT, EPDM, EPR, etc.

331.8 .....Sulfur containing chemical treating agent

331.9 ....Polymer derived from monomer containing at least two ethylenic groups or diene rubber

332.1 .....Monomer contains non-conjugated diene group or at least one fused or bridged ring or at least one cycloaliphatic structure

332.2 .....Divinyl benzene

332.3 .....Halogen containing chemical treating agent

332.4 .....Sulfur containing chemical treating agent

332.5 .....Vulcanized in the presence of a chemical treating agent, e.g., cured, crosslinked, etc.

332.6 .....Sulfur containing chemical treating agent

332.7 .....Nitrogen containing chemical treating agent

332.8 .....Interpolymer with aliphatic hydrocarbon monomer (includes additional diene monomer)

332.9 .....Interpolymer with aromatic hydrocarbon

333.1 .....Isoprene or diene rubber other than butadiene rubber

333.2 .....Butadiene homopolymer

333.3 ....Polymer derived from aromatic hydrocarbon monomer, e.g., styrene, etc.

333.4 .....Halogenated polymer

333.5 .....Sulfur containing chemical treating agent

333.6 .....Nitrogen containing chemical treating agent

333.7 ....Polymer derived from acyclic hydrocarbon monomer only

333.8 .....Air, elemental oxygen, ozone or peroxide chemical treating agent

333.9 .....Sulfur containing chemical treating agent

334.1 .....Halogenated polymer

337 ...Chemical treating agent contains boron or boron-containing compound other than boron trihalide or nonmetal complex thereof

338 ...Chemical treating agent contains elemental hydrogen or an elemental hydrogen-liberating compound, e.g., hydrogenation, etc.

339 ....Treating in the presence of an elemental metal or inorganic metallic compound

340 ...Chemical treating agent contains a phosphorus atom

341 ....Contains a sulfur atom

342 ...Chemical treating agent contains a silicon atom

343 ...Chemical treating agent contains a sulfur atom

344 ....Inorganic sulfur compound contains sulfur atom bonded to at least two oxygen atoms

345 ....With peroxide, ozone, or free oxygen

346 ....With sulfur-free organic compound

347 .....Sulfur-free organic compound contains heterocyclic nitrogen

348 ....Sulfur-containing heterocyclic compound

349 .....Heterocyclic ring contains sulfur and nitrogen atoms

350 ....Mercaptan or mercaptide

351 ....Organic compound contains sulfur and nitrogen atoms

352 .....One or more sulfur atoms of the nitrogen-containing compound are double bonded to carbon

353 ....Sulfur compound contains sulfur atom bonded to at least two oxygen atoms, e.g., sulfonate, etc.

354 ....Elemental sulfur or inorganic sulfur compound

355 ...Chemical treating agent contains hydrogen halide, elemental halogen, organic halogen-containing compound, or compound containing only halogen atoms

356 ....Treating in the presence of elemental halogen

357 .....Treating in the presence of a metal or metal-containing compound

358 .....Treating in the presence of water

359.1 ....Treating in the presence of organic halogen-containing compound

SYNTHETIC RESINS (Class 520, Subclass 1)
.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..At least one solid polymer derived from ethylenic reactants only

...Chemical treating agent contains hydrogen halide, elemental halogen, organic halogen-containing compound, or compound containing only halogen atoms

....Treating in the presence of organic halogen-containing compound

359.2 .....Organic halogen-containing compound contains a hetero ring

359.3 .....Organic halogen-containing compound contains oxygen

359.4 .....Organic halogen-containing compound contains a (C=O)O group or an aromatic group

359.5 .....Organic halogen-containing compound contains only carbon, hydrogen, and halogen

359.6 .....Organic halogen-containing compound contains an aromatic group

360 ...Chemical treating agent contains elemental metal or metal-containing compound

361 ....Two or more diverse elemental metals or compounds thereof; or same metal in two or more distinct compounds; or diverse metals in same compound

362 .....Elemental metal or inorganic compound thereof only

363 .....Aluminum or Group IIB (Zn, Cd, Hg) metal or compound thereof

364 .....Organometallic compound and elemental metal or inorganic compound thereof

365 .....Aluminum metal or compound thereof

366 ....Contains Group IA (Li, Na, K, Rb, Cs, Fr) or Group IIA (Be, Mg, Ca, Sr, Ba, Ra) elemental metal or compound thereof

367 .....Elemental metal or inorganic metal compound

368 .....Metal oxide

369 .....Metal hydroxide

370 ....Contains Group IB (Cu, Ag, Au), IIB (Zn, Cd, Hg), IIIA (Al, Ga, In, Tl), IV (Ti, Zr, Hf, Ge, Sn, Pb), and VIII (Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, Pt) elemental metal or compound thereof

371 .....Elemental metal or inorganic compound thereof

372 .....Metal oxide

373 .....Group IIB metal (Zn, Cd, Hg) oxide

374 ...Chemical treating agent is a nitrogen-containing compound

375 ....Contains nitrogen atom in a heterocyclic ring

376 ....Nitrogen-containing compound has at least one nitrogen-to-nitrogen bond

377 ....Nitrogen-containing compound contains at least one nitrile or isonitrile group; or a nitrogen-to-oxygen bond which is other than as an amine or ammonium salt

378 ....Ammonia, ammonium hydroxide, or salts thereof

379 ....Organic amine

380 .....Amine contains a hydroxyl group

381 .....Three or more amine groups

382 .....Two amine groups

383 ...Chemical treating agent contains elemental oxygen or oxygen-containing compound

384 ....Oxygen compound contains at least one alcohol group

385 ....Oxygen compound contains an ether group

386 ....Oxygen compound is a carboxylic acid, ester, anhydride, or lactone thereof

387 ....Oxygen compound contains a peroxy group (-O-O-)

388 ....Specified oxygen-containing compound is air, elemental oxygen, or ozone

389 ..Solid polymer derived from reactant containing atoms other than C, H, N, Si, P, chalcogen, halogen, or an alkali or alkaline earth metal in salt form

390 ..Solid polymer derived solely from phenolic reactants wherein none of the reactants contains a plurality of methylol groups or derivatives thereof

391 ...Mixed with ethylenically unsaturated reactant or polymer derived therefrom

392 ....Unsaturated aromatic reactant or polymer thereof

393 ...Mixed with silicon-containing reactant or polymer derived therefrom

394 ...Mixed with -O-C(=O)-O-, hal-C(=O)-O-, or hal-C(=O)-hal containing reactant or polymer derived therefrom

395 ...Mixed with -N=C=X-containing reactant or polymer therefrom (X is chalcogen)

SYNTHETIC RESINS (Class 520, Subclass 1)
.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..Solid polymer derived solely from phenolic reactants wherein none of the reactants contains a plurality of methylol groups or derivatives thereof

396 ...Mixed with 1,2-epoxy containing reactant or polymer therefrom, or wherein polymer contains at least one 1,2-epoxy group

397 ...Mixed with carboxylic acid or derivative reactant or polymer derived therefrom

398 ..Solid polymer derived from aldehyde, aldehyde derivative, or liquid polymer thereof as sole reactant and wherein none of the reactants contains a plurality of methylol groups or derivatives thereof

399 ...Mixed with -N=C=X-containing reactant or polymer derived therefrom (X is a chalcogen)

400 ...Mixed with carboxylic acid or derivative reactant or polymer derived therefrom

401 ...Mixed with ethylenically unsaturated reactant or polymer derived therefrom

402 ...Solid polymer derived from aldehyde or derivative containing halogen

403 ..Solid polymer is derived from 1,2-epoxy compound containing only one 1,2 epoxy group as sole reactant and wherein none of the reactants contains a plurality of methylol groups or derivatives thereof

404 ...Mixed with ethylenically unsaturated reactant or polymer therefrom

405 ...Mixed with aldehyde or aldehyde derivative reactant or polymer therefrom

406 ....Contains amine-, N-C(=X)-, or N-S(=O)- containing reactant (X is chalcogen)

407 ...Mixed with 1,2-epoxy reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

408 ...Mixed with carboxylic acid or derivative or polymer derived therefrom

409 ...Solid polymer derived only from 1,2-epoxy reactants containing only C, H, and O

410 ..Solid polymer derived from hetero-O-cyclic compounds as sole reactants wherein at least one reactant contains a hetero-O-ring other than solely as a 1,2-epoxy or anhydride, and wherein none of the reactants contains a plurality of methylol groups or derivatives thereof

411 ...Mixed with carboxylic acid or derivative reactant or polymer therefrom

412 ...Mixed with unsaturated reactant or polymer therefrom

413 ...Mixed with -O-C(=O)- or hal-C(=O)- reactant or polymer derived therefrom

414 ...Mixed with aldehyde or aldehyde derivative or polymer derived therefrom

415 ...Solid polymer derived from carboxylic acid cyclic ester, e.g., lactone, etc.

416 ..Solid polymer derived from hydrocarbon or halogenated hydrocarbon as sole reactant or mixture thereof

417 ..Solid polymer derived from heterocyclic materials as sole reactants wherein each of the heterocyclic materials contains a hetero ring other than solely as a lactam, 1,2-epoxy or carboxylic acid anhydride and wherein none of the reactants contains a plurality of methylol groups or derivatives thereof

418 ..Solid polymer derived from at least one carboxylic acid or derivative

419 ...Solid polymer derived from at least one lactam; from an amino carboxylic acid or derivative; or from a polycarboxylic acid or derivative

420 ....Solid polymer derived from an amino carboxylic acid or derivative; from a polyamine and a polycarboxylic acid or derivative; from at least one lactam; or from a polyamine salt of a polycarboxylic acid

420.5 .....Solid polymer derived from a polycarboxylic acid which is a dimer or trimer of an aliphatic acyclic monocarboxylic acid having at least ten carbon atoms or adducts of unsaturated aliphatic acyclic monocarboxylic acids, having ten carbon atoms with an alpha, beta ethylenically unsaturated carboxylic acid or derivative

421 .....Solid polymer derived from reactant containing ethylenic unsaturation

422 ......Solid polymer derived from imide reactant

423 .....Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..Solid polymer derived from at least one carboxylic acid or derivative

...Solid polymer derived from at least one lactam; from an amino carboxylic acid or derivative; or from a polycarboxylic acid or derivative

....Solid polymer derived from an amino carboxylic acid or derivative; from a polyamine and a polycarboxylic acid or derivative; from at least one lactam; or from a polyamine salt of a polycarboxylic acid

424 .....Mixed with -N=C=X reactant or polymer derived therefrom (X is chalcogen)

425 .....Mixed with polycarboxylic acid or derivative and polyhydroxy reactant or polymer therefrom

426 .....Mixed with ethylenically unsaturated reactant or polymer therefrom

427 .....Mixed with aldehyde or aldehyde derivative reactant or polymer therefrom

428 ......Contains amine-, N-C(=X)-, or N-S(=O)- containing reactant or polymer thereof (X is chalcogen)

429 ......Contains phenolic reactant or polymer thereof

430 .....Mixed with a reactant containing a single 1,2-epoxy group per mole or polymer derived therefrom

431 .....Mixed with silicon containing reactant or polymer derived from

432 .....Mixed with additional polycarboxylic acid and a polyamine; amino carboxylic acid or derivative; polyamine salt of a polycarboxylic acid; lactam; or polymer derived therefrom

433 .....Mixed with O-C(=O)-O-, hal-C(=O)-, or hal-C(=O)-hal reactant or polymer derived therefrom

434 .....Solid polymer derived from hydroxyl group-containing reactant

435 .....Solid polymer derived from compound containing more than two amine groups

436 .....Solid polymer derived from compound containing more than two carboxylic acid groups or derivatives thereof

437 ....Solid polymer derived from polyhydroxy reactant and polycarboxylic acid or derivative reactant; or derived from di- or higher ester of a polycarboxylic acid as sole reactant

438 .....Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

439 .....Mixed with O-C(=O)-O-, hal-C(=O)-O-, or hal-C(=O)-hal containing reactant or polymer derived therefrom; or wherein solid polymer is derived from a hal-C(=O)-hal, O-C(=O)-O-, or hal-C(=O)-O-, a polycarboxylic acid or derivative and a polyhydroxy reactant

* 440.01 .....Mixed with -N=C=X reactant or polymer derived therefrom (X is chalcogen); or wherein solid polymer is derived from a -N=C=X reactant and also a polycarboxylic acid or derivative and a polyhydroxy reactant

* 440.02 ......Blocked isocyanate reactant or polymer derived therefrom

* 440.03 ......Silicon, phosphorus, or halogen containing reactant or polymer derived therefrom

* 440.04 ......Heterocyclic containing reactant or polymer derived therefrom other than as an anhydride of a polcarboxylic acid

* 440.05 ......Sulfur, selenium, or tellurium containing reactant other than X in a N=C=X group or polymer derived therefrom

* 440.06 ......Nitrogen containing reactant other than N in a N=C=X group or polymer thereof

* 440.07 ......Reactant contains ethylenic unsaturation

* 440.071 .....N=C=X reactant or polymer derived therefrom contains ethylenic unsaturation

* 440.072 .....Polyhydroxy reactant contains ethylenic unsaturation

* 440.08 ......Fused or bridged ring system containing, or non-aryl carbocyclic ring containing reactant

* 440.09 ......Reactant contains an aryl group bonded to an oxygen atom

* 440.11 ......N=C=X reactant or polymer derived therefrom contains plural ether linkages

* 440.12 ......N=C=X reactant or polymer derived therefrom contains at least one aryl group

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..Solid polymer derived from at least one carboxylic acid or derivative

...Solid polymer derived from at least one lactam; from an amino carboxylic acid or derivative; or from a polycarboxylic acid or derivative

....Solid polymer derived from polyhydroxy reactant and polycarboxylic acid or derivative reactant; or derived from di- or higher ester of a polycarboxylic acid as sole reactant

.....Mixed with -N=C=X reactant or polymer derived therefrom (X is chalcogen); or wherein solid polymer is derived from a -N=C=X reactant and also a polycarboxylic acid or derivative and a polyhydroxy reactant

* 440.13 ......Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound is derived from a hydroxy containing carboxylic acid or derivative reactant

* 440.14 ......Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound wherein said polycarboxylic acid or derivative contains three or more carboxylic acid or derivative groups

* 440.15 ......Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound wherein said polyhydroxy reactant contains three or more hydroxy groups or contains at least one ether group

* 440.16 ......Solid polymer derived from two or more polycarboxylic acid or derivatives and a single polyhydroxy compound

441 .....Mixed with aldehyde or aldehyde derivative reactant or polymer derived therefrom

442 ......Contains phenolic reactant or polymer thereof

443 ......Contains an amine-, N-C(=X)-, or N-S(=O)-containing reactant or polymer thereof (X is chalcogen)

444 .....Mixed with polycarboxylic acid or derivative and polyhydroxy reactant or polymer thereof

444.5 ......Solid polymer derived from or system contains a reactant which is a fatty acid glycerol ester, a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or fattly acid derived from tall oil

445 .....Mixed with ethylenically unsaturated reactant or polymer therefrom

446 .....Mixed with silicon-containing reactant or polymer derived therefrom

447 .....Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound derived from reactant containing ethylenic unsaturation

448 .....Solid polymer derived from polycarboxylic acid or derivative and polyhydroxy compound is derived from two or more polycarboxylic acids or derivatives

449 ....Mixed with 1,2-epoxy reactant or polymer derived therefrom

450 ...Solid polymer derived from hydroxy-containing carboxylic acid or derivative reactant

451 ...Solid polymer derived from carboxylic acid or derivative derived from ethylenically unsaturated reactant

452 ..Solid polymer derived from -N=C=X reactant (X is chalcogen)

453 ...Solid polymer derived from -N=C=X reactant and polyhydroxy reactant

454 ....Mixed with carboxylic acid or derivative reactant or polymer derived therefrom; or with heterocyclic reactant containing more than one heterocyclic ring; or polymer therefrom

455 ....Mixed with ethylenically unsaturated reactant or polymer therefrom

456 ....Mixed with aldehyde or aldehyde derivative reactant or polymer therefrom

457 ....Mixed with -N=C=X reactant or polymer therefrom

458 .....Contains polyhydroxy reactant; or additional polymer derived from -N=C=X and polyhydroxy reactant

459 ....Solid polymer derived from -N=C=X reactant and polyhydroxy reactant also derived from polyamine reactant

460 ....Solid polymer derived from -N=C=X reactant and polyhydroxy reactant derived from polyhydroxy reactant containing an ether group

461 ..Solid polymer derived from O-C(=O)-O- or hal-C(=O)-containing reactant

462 ...Solid polymer derived from O-C(=O)-O- or hal-C(=O)-containing reactant and polyhydroxy reactant

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..Solid polymer derived from O-C(=O)-O- or hal-C(=O)-containing reactant

...Solid polymer derived from O-C(=O)-O- or hal-C(=O)-containing reactant and polyhydroxy reactant

463 ....Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

464 ....Mixed with silicon-containing reactant or polymer derived therefrom

465 ....Mixed with aldehyde or aldehyde derivative reactant or reaction product therefrom

466 ....Mixed with polycarboxylic acid or derivative and polyhydroxy reactants or polymer thereof; or di- or higher ester of polycarboxylic acid as sole reactant or polymer therefrom

467 ....Mixed with nitrogen-containing reactant or polymer therefrom

468 ....Mixed with ethylenically unsaturated reactant or polymer therefrom

469 ....Solid polymer derived from O-C(=O)-O- or hal-C(=O)- and polyhydroxy reactant derived from at least two polyhydroxy reactants

470 ....Solid polymer derived from O-C(=O)-O- or hal-C(=O)- reactant and polyhydroxy reactant contains an atom other than C, H, O, or halogen bonded to a C(=O) group

471 ..Solid polymer derived from ketone reactant and wherein none of the reactants forming the solid polymer contains an aldehyde group or is an aldehyde-type reactant or polymer derived therefrom

472 ..Solid polymer derived from aldehyde or aldehyde-type reactant and wherein none of the reactants forming the solid polymer contains a phenol-, amine-, -N=C=X, -N-S(=O)- or ketone group or a condensate thereof except when an amine group appears in hexamethylenetetramine or a derivative thereof (X is chalcogen)

473 ...Solid polymer derived from aldehyde or aldehyde-type reactant containing atoms other than C, H, or O and wherein when hexamethylenetetramine or derivative is a reactant, there is additionally present a reactant containing atoms other than C, H, or O

474 ..Solid polymer derived from silicon-containing reactant

475 ...Mixed with aluminum- or heavy metal-containing reactant or polymer therefrom

476 ...Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

477 ...Mixed with silicon-containing reactant or polymer therefrom

478 ....Wherein one of said silicon materials contains Si-H bond

479 ...Mixed with ethylenically unsaturated reactant or polymer derived therefrom

480 ..Solid polymer or specified intermediate condensation product derived from at least one phenolic reactant and at least one aldehyde or aldehyde-type reactant or polymer therefrom

481 ...Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

482 ....Phenolic-aldehyde or phenolic-aldehyde-type reaction product modified with 1,2-monoepoxide prior to mixing with reactant containing more than one 1,2 epoxy group per mole or polymer derived therefrom

483 .....Contains sulfur-containing reactant or polymer therefrom

484 .....Contains nitrogen reactant or polymer therefrom

485 ....With specified material

486 .....Specified material contains nitrogen

487 ....With silicon-containing reactant or polymer derived therefrom

488 ....With carboxylic acid or derivative reactant or polymer derived therefrom

489 ....With additional aldehyde or aldehyde-type reactant or polymer therefrom which is distinct from aldehyde or aldehyde-type reactant used in forming solid polymer or SICP; or with nitrogen-containing reactant

490 ....Wherein phenolic-aldehyde or phenolic-aldehyde-type solid polymer or SICP contains nitrogen or ethylenic unsaturation

491 ...Mixed with additional aldehyde or aldehyde-type reactants which are part of a SPFI system or polymer thereof

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

..Solid polymer or specified intermediate condensation product derived from at least one phenolic reactant and at least one aldehyde or aldehyde-type reactant or polymer therefrom

...Mixed with additional aldehyde or aldehyde-type reactants which are part of a SPFI system or polymer thereof

492 ....Additional material is a hydrocarbon-aldehyde- or hydrocarbon-aldehyde-type polymer, condensate, or reactants therefrom

493 ....Additional material is ketone-aldehyde- or ketone-aldehyde-type polymer, condensate, or reactants thereof

494 .....Contains nitrogen-containing reactant or polymer therefrom

495 ....Additional material is amine-, N-C(=X)-, or N-S(=O)-containing reactant- aldehyde or -aldehyde derivative polymer, condensate, or reactants therefrom (X is chalcogen)

496 .....Contains 1,2-epoxy-containing reactant or polymer derived therefrom

497 .....Heterocyclic nitrogen reactant or polymer therefrom, e.g., melamine, etc.

498 .....-N-C(=X)-N-containing reactant or polymer, e.g., urea, etc. (X is chalcogen)

499 .....Contains sulfur reactant or polymer therefrom

500 ....Wherein the phenolic-aldehyde- or phenolic-aldehyde-type solid polymer or SICP is derived from a reactant or polymer containing an atom other than C, H, or O

501 ....Additional phenol-aldehyde- or -aldehyde-type polymer, condensation product or reactants therefrom

501.5 ...Mixed with reactant which is a fatty acid glycerol ester, a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or a fatty acid derived from tall oil; or the reaction product of any of the above with a polycarboxylic acid or ester forming derivative and a polyhydroxy compound

502 ...Mixed with unsaturated reactant or polymer derived therefrom

503 ...Mixed with aldehyde or aldehyde-type chemical treating agent

504 ...Mixed with nitrogen-containing chemical treating agent

505 ...Mixed with sulfur-containing chemical treating agent

506 ...Mixed with a boron- or polyvalent metal-containing chemical treating agent

507 ...Mixed with an 1,2-epoxy-containing chemical treating agent

508 ...Mixed with carboxylic acid- or derivative-containing chemical treating agent

509 ..Solid polymer or SICP derived from at least one amine-, N-C(=X)- or N-S(=O) containing reactant and at least one aldehyde or aldehyde-type reactant (X is chalcogen)

510 ...Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

511 ....With specified material

512 ....Amine-, N-C(=X)- or N-S(=O)-containing reactant (X is chalcogen) aldehyde or a -aldehyde-type condensation product or polymer thereof contains atoms other than C, H, O, N, or S

513 ....With sulfur-containing reactant or polymer therefrom

514 ....With carboxylic acid or derivative reactant or polymer derived therefrom

515 ...Mixed with additional aldehyde or aldehyde-type solid polymer; or SICP; or aldehyde or aldehyde-type reactant

516 ....Contains a phenolic reactant or polymer thereof

517 ....Amine-, N-C(=X)- or N-S(=O)-containing reactant-aldehyde or -aldehyde-type polymer or condensation product contains atoms other than C, H, O, N, or S (X is chalcogen)

517.5 ...Mixed with a reactant which is a fatty acid glycerol ester, a fatty acid or salt derived from a naturally occurring glyceride, tall oil, or a fatty acid derived from tall oil; or the reaction product of any of the above with a polycarboxylic acid or ester forming derivative and a polyhydroxy compound

518 ...Mixed with unsaturated reactant or polymer derived therefrom

519 ...Mixed with carboxylic acid or derivative reactant or polymer therefrom

520 ....Contains -N=C=X reactant or polymer therefrom (X is chalcogen)

SYNTHETIC RESINS (Class 520, Subclass 1)

.MIXING OF TWO OR MORE SOLID POLYMERS; MIXING OF SOLID POLYMER OR SICP WITH SICP OR SPFI; MIXING OF SICP WITH AN ETHYLENIC AGENT; MIXING OF SOLID POLYMER WITH A CHEMICAL TREATING OR ETHYLENIC AGENT; OR PROCESSES OF FORMING OR REACTING; OR THE RESULTANT PRODUCT OF ANY OF THE ABOVE OPERATIONS

521 ..Solid polymer or SICP derived from at least one ketone reactant and at least one aldehyde or aldehyde derivative reactant

522 ...Mixed with reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

523 ..Solid polymer contains more than one 1,2-epoxy group or is derived from reactant containing at least one 1,2-epoxy group

524 ...Mixed with a reactant containing more than one 1,2-epoxy group per mole or polymer derived therefrom

525 ....Wherein at least one of said 1,2-epoxy reactants or polymer derived therefrom contains atoms other than C, H, or O

526 .....Contains nitrogen atom

527 .....Contains halogen atom

528 ...Mixed with -N=C=X-containing reactant or polymer therefrom

529 ...Mixed with unsaturated reactant or polymer derived therefrom

530 ....Wherein unsaturated reactant is a carboxylic acid or derivative or polymer derived therefrom

531 .....Wherein unsaturated reactant contains only one free carboxyl group

532 .....Contains polyol reactant or polymer derived therefrom

533 ...Mixed with carboxylic acid or derivative reactant or polymer therefrom

534 ..Solid polymer derived from phenolic reactant

535 ..Solid polymer derived from sulfur-containing reactant

536 ...Solid polymer derived from sulfur dioxide and ethylenically unsaturated reactant

537 ...Solid polymer derived from alkali metal sulfide and halogenated aromatic reactant, e.g., polyarylene sulfide, etc.

538 ..Solid polymer derived from phosphorus-containing reactant

539 ..Solid polymer derived from at least one unsaturated reactant and at least one saturated reactant

540 ..Solid polymer derived from nitrogen-containing reactant

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CROSS-REFERENCE ART COLLECTIONS

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901 RADIAL BLOCK

902 CORE-SHELL

903 INTERPENETRATING NETWORK

904 ACTIVATION OF PREFORMED POLYMER IN ABSENCE OR MONOMER, FOR SUBSEQUENT POLYMERIZATION THEREON (E.G., TRAPPED RADICALS)

905 POLYPHENYLENE OXIDE

906 POLYSULFONE

907 POLYCARBODIIMIDE

908 POLYMER CONTAINING A HYDANTOIN GROUP

909 POLYMER HAVING A HETEROCYCLIC RING WITH AT LEAST THREE DIFFERENT ELEMENTS WITHIN THE RING

910 POLYMER FROM ETHYLENIC MONOMERS ONLY, HAVING TERMINAL UNSATURATION

911 POLYMER FROM ETHYLENIC MONOMERS ONLY, HAVING TERMINAL FUNCTIONAL GROUP OTHER THAN UNSATURATION

912 POLYMER FROM NONETHYLENIC MONOMERS ONLY, HAVING PENDANT UNSATURATED GROUP

913 POLYMER FROM MONOMERS ONLY HAVING PENDANT GLYCIDYL GROUP

914 POLYMER FROM CONJUGATED DIENE HYDROCARBON OR HALOHYDROCARBONS HAVING MORE THAN 50 PER CENT 1,2-MICROSTRUCTURE

915 POLYMER FROM MONOETHYLENIC CYCLIC HYDROCARBON

916 POLYMER FROM ETHYLENIC MONOMERS ONLY, HAVING CATIONIC GROUP

917 POLYMER FROM AT LEAST ONE NONETHYLENIC MONOMER HAVING CATIONIC GROUP

918 POLYMER PREPARED BY CATIONIC POLYMERIZATION

919 IONOMER RESINS (CARBOXYLATE SALT-CONTAINING COPOLYMERS)

920 POLYURETHANE HAVING TERMINAL ETHYLENIC UNSATURATION

921 POLYESTER HAVING TERMINAL ETHYLENIC UNSATURATION OTHER THAN POLYESTERURETHANES

922 POLYEPOXIDE POLYMER HAVING BEEN REACTED TO YIELD TERMINAL ETHYLENIC UNSATURATION

923 AMINOPLAST HAVING TERMINAL ETHYLENIC UNSATURATION

924 PHENOPLAST HAVING TERMINAL ETHYLENIC UNSATURATION

925 POLYMER FROM AT LEAST ONE NONETHYLENIC MONOMER HAVING TERMINAL ETHYLENIC UNSATURATION OTHER THAN POLYURETHANES, POLYESTERS, POLYEPOXIDES, AMINOPLASTS, AND PHENOPLASTS

926 POLYAMIDE CONTAINING A PLURALITY OF OXYALKYLENE GROUPS

927 POLYAMIDE ADMIXED WITH OXYALKYLENE-CONTAINING POLYMER

928 POLYIMIDE OR POLYAMIDE-ACID FORMED BY CONDENSATION OF A POLYAMINE WITH A POLYCARBOXYLIC ACID HAVING AT LEAST THREE CARBOXYL GROUPS OR DERIVATIVES THEREOF

929 POLYIMIDE FORMED BY ADDITION OF POLYAMINE TO AN UNSATURATED BIS-IMIDE

930 REACTION PRODUCT OF A POLYHYDRIC PHENOL AND EPICHLOROHYDRIN OR DIEPOXIDE, HAVING A MOLECULAR WEIGHT OF OVER 5,000 (E.G., PHENOXY RESINS)

931 BLEND OF STATED INCOMPATIBILITY

932 BLEND OF MATCHED OPTICAL PROPERTIES

933 BLEND OF LIMITED GAS PERMEABILITY

934 POWDERED COATING COMPOSITION

935 MATRIX ADMIXED WITH SYNTHETIC FIBER

936 ENCAPSULATED CHEMICAL AGENT

937 UTILITY AS BODY CONTACT (IMPLANT, CONTACT LENS, I.U.D., ETC.)

938 POLYMER DEGRADATION

939 MULTIPACKAGE SYSTEM

940 HYDROGENATION OF A POLYMER

941 POLYMER MIXTURE CONTAINING BLOCK COPOLYMER IS MIXED OR REACTED WITH CHEMICAL TREATING AGENT

942 POLYMER DERIVED FROM NITRILE, CONJUGATED DIENE AND AROMATIC CO-MONOMERS

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FOREIGN ART COLLECTION

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FOR 000 CLASS-RELATED FOREIGN DOCUMENTS

SEPTEMBER 4, 2007

PROJECT C-7029

SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

| New Classification | Number Of ORs | Source Classification | Number Of ORs |
|---|---|---|---|
| 156/308.4 | 1 | 525/440 | 248 |
| 156/329 | 1 | 525/440 | 248 |
| 156/331.4 | 1 | 525/440 | 248 |
| 424/49 | 1 | 525/440 | 248 |
| 427/322 | 1 | 525/440 | 248 |
| 428/300.7 | 1 | 525/440 | 248 |
| 428/395 | 5 | 525/440 | 248 |
| 428/423.1 | 1 | 525/440 | 248 |
| 428/431 | 1 | 525/440 | 248 |
| 428/520 | 1 | 525/440 | 248 |
| 435/123 | 1 | 525/440 | 248 |
| 473/378 | 2 | 525/440 | 248 |
| 523/102 | 1 | 525/440 | 248 |
| 523/161 | 1 | 525/440 | 248 |
| 524/109 | 1 | 525/440 | 248 |
| 524/308 | 1 | 525/440 | 248 |
| 525/124 | 2 | 525/440 | 248 |
| 525/127 | 13 | 525/440 | 248 |

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PROJECT C-7029

SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

| New Classification | Number Of ORs | Source Classification | Number Of ORs |
|---|---|---|---|
| 525/399 | 1 | 525/440 | 248 |
| 525/437 | 1 | 525/440 | 248 |
| 525/438 | 1 | 525/440 | 248 |
| 525/440.01 | 6 | 525/440 | 248 |
| 525/440.02 | 43 | 525/440 | 248 |
| 525/440.03 | 18 | 525/440 | 248 |
| 525/440.04 | 26 | 525/440 | 248 |
| 525/440.05 | 14 | 525/440 | 248 |
| 525/440.06 | 28 | 525/440 | 248 |
| 525/440.07 | 16 | 525/440 | 248 |
| 525/440.072 | 10 | 525/440 | 248 |
| 525/440.08 | 18 | 525/440 | 248 |
| 525/440.09 | 2 | 525/440 | 248 |
| 525/440.11 | 1 | 525/440 | 248 |
| 525/440.12 | 18 | 525/440 | 248 |
| 525/440.13 | 2 | 525/440 | 248 |
| 525/440.15 | 6 | 525/440 | 248 |
| 525/540 | 1 | 525/440 | 248 |

SEPTEMBER 4, 2007

PROJECT C-7029

DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

| Source Classification | Number Of ORs | New Classification | Number Of ORs |
|---|---|---|---|
| 525/440 | 248 | 156/308.4 | 1 |
| | | 156/329 | 1 |
| | | 156/331.4 | 1 |
| | | 424/49 | 1 |
| | | 427/322 | 1 |
| | | 428/300.7 | 1 |
| | | 428/395 | 5 |
| | | 428/423.1 | 1 |
| | | 428/431 | 1 |
| | | 428/520 | 1 |
| | | 435/123 | 1 |
| | | 473/378 | 2 |
| | | 523/102 | 1 |
| | | 523/161 | 1 |
| | | 524/109 | 1 |
| | | 524/308 | 1 |
| | | 525/124 | 2 |

SEPTEMBER 4, 2007

PROJECT C-7029

DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

| Source Classification | Number Of ORs | New Classification | Number Of ORs |
|---|---|---|---|
| | | 525/127 | 13 |
| | | 525/399 | 1 |
| | | 525/437 | 1 |
| | | 525/438 | 1 |
| | | 525/440.01 | 6 |
| | | 525/440.02 | 43 |
| | | 525/440.03 | 18 |
| | | 525/440.04 | 26 |
| | | 525/440.05 | 14 |
| | | 525/440.06 | 28 |
| | | 525/440.07 | 16 |
| | | 525/440.072 | 10 |
| | | 525/440.08 | 18 |
| | | 525/440.09 | 2 |
| | | 525/440.11 | 1 |
| | | 525/440.12 | 18 |
| | | 525/440.13 | 2 |
| | | 525/440.15 | 6 |
| | | 525/540 | 1 |

SEPTEMBER 4, 2007

PROJECT C-7029

C. CHANGES TO THE U.S. – I.P.C. CONCORDANCE

| U.S. | | I.P.C. | |
|---|---|---|---|
| Class | Subclass | Subclass | Notation |
| 525 | 440.01-440.16 | C08F | 20/00 |
| | | C08G | 18/00 |
| | | C08G | 63/00 |
| | | C08G | 73/00 |

D. CHANGES TO THE DEFINITIONS (Project No. C-7029)

CLASS 525 - SYNTHETIC RESINS OR NATURAL RUBBERS -- PART OF THE CLASS 520 SERIES

Definitions Abolished

Subclasses

440

Definitions Modified

Subclass 28: After the subclass definition, in (1) Note:

Delete:

See subclass 395 for a discussion of terms.

After the subclass definition, in (2) Note:

Delete:

In those instances wherein the solid polyester is reacted with the isocyanate prior to mixing with the unsaturated reactant, see this class, subclass 440.

After the (2) Note:

Insert:

SEE OR SEARCH THIS CLASS, SUBCLASS:

395, for a discussion of the term -N C=X reactant, which includes blocked or masked isocyanates.

440.01, for those instances wherein a solid polyester is reacted with an isocyanate prior to mixing with an unsaturated reactant.

D. CHANGES TO THE DEFINITIONS (Project No. C-7029)

Definitions Established

**440.01 Mixed with -N=C=X reactant or polymer derived therefrom (X is chalcogen); or wherein solid polymer is derived from an -N=C=X reactant and also a polycarboxylic acid or derivative and a polyhydroxy reactant:**
This subclass is indented under subclass 437. Subject matter wherein the solid polymer derived from polycarboxylic acid or derivative reactant and polyhydroxy reactant, or from a di- or higher ester of a polycarboxylic acid as sole reactant, is mixed with an -N=C=X or blocked -N=C=X reactant or polymer derived therefrom; or wherein the solid polymer is derived from a polycarboxylic acid or derivative reactant, a polyhydroxy reactant, and an -N=C=X or blocked -N=C=X reactant (X is chalcogen).

(1) Note. This subclass provides for a solid polymer derived from at least one polyol and at least one polycarboxylic acid mixed with an -N=C=X reactant, as well as solid polymers derived from at least one polyol, polycarboxylic acid and a compound containing -N=C=X groups mixed with a chemical treating agent.

**440.02 Blocked isocyanate reactant or polymer derived therefrom:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or reacted with a group convertible to an -N=C=X group, or an -N=C=X group previously reacted with a blocking group.

(1) Note. Blocking an –N=C=X (masked, hidden, etc) is utilized to render the –N=C=X group inert by conversion to an inactive group. The process of reactivation usually merely involves merely heating the blocked reactant to a –N=C=X reactant. The usual mode of rendering is to convert it to the form of a NO- group. Examples of blocking groups include, but are not limited to uretidiones, carbamates, carbodiimides, etc.

**440.03 Silicon, phosphorus, or halogen containing reactant or polymer derived therefrom:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a silicon, phosphorus, or halogen containing reactant.

**440.04 Heterocyclic containing reactant or polymer derived therefrom other than as an anhydride of a polycarboxylic acid:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a heterocyclic containing reactant, and wherein the heterocyclic reactant is other than as an anhydride of a polycarboxylic acid.

**440.05 Sulfur, selenium, or tellurium containing reactant other than X in an –N=C=X group or polymer derived therefrom, or in an -N-(C=X)-X- group:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a sulfur, selenium, or tellurium containing reactant and wherein X is other than X in an -N=C=X group or polymer derived therefrom, or wherein the X atom is other than in an -N-(C=X)-X group.

D. CHANGES TO THE DEFINITIONS (Project No. C-7029)

**440.06 Nitrogen containing reactant other than N in an -N=C=X group or polymer thereof, or in a N-(C=X)-X- group:**
This subclass is indented under subclass 440.01 Subject matter wherein the solid polymer is derived from or has been reacted with a nitrogen containing reactant other than N in an -N=C=X group or polymer thereof, or wherein the nitrogen atom is in other than an -N-(C=X)-X group.

**440.07 Reactant contains ethylenic unsaturation:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a reactant containing at least one ethylenic group.

**440.071 N=C=X reactant or polymer derived therefrom contains ethylenic unsaturation:**
This subclass is indented under subclass 440.07. Subject matter wherein the N=C=X reactant contains at least contains at least one ethylenic group.

**440.072 Polyhydroxy reactant contains ethylenic unsaturation:**
This subclass is indented under subclass 440.07. Subject matter wherein the polyhydroxy reactant contains at least one ethylenic group.

**440.08 Fused or bridged ring system containing, or non-aryl carbocyclic ring containing reactant:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with a fused- or bridged-ring system containing reactant, or non-aryl carboxylic ring containing reactant.

SEE OR SEARCH THIS CLASS:

520, Synthetic Resins or Natural Rubbers, the Glossary, for a definition of the term "fused or bridged ring system."

**440.09 Reactant contains an aryl group directly bonded to an oxygen atom:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from or has been reacted with at least one reactant containing an aryl group directly bonded to an oxygen atom.

**440.11 N=C=X reactant or polymer derived therefrom contains plural ether linkages:**
This subclass is indented under subclass 440.01. Subject matter wherein the -N=C=X reactant or polymer derived therefrom contains plural ether linkages.

**440.12 N=C=X reactant or polymer derived therefrom contains at least one aryl group:**
This subclass is indented under subclass 440.01. Subject matter wherein the -N=C=X reactant or polymer derived therefrom contains at least one aryl group.

**440.13 Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound is derived from a hydroxy containing carboxylic acid or derivative reactant:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from a single reactant which contains at least one hydroxyl group and at least one carboxylic acid group or derivative.

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**440.14 Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound wherein said polycarboxylic acid or derivative contains three or more carboxylic acid or derivative groups:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from a reactant which contains three or more carboxylic acid or derivative groups.

**440.15 Solid polymer derived from polycarboxylic acid or derivative and a polyhydroxy compound wherein said polyhydroxy reactant contains three or more hydroxy groups or contains at least one ether group:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from a reactant containing three or more hydroxyl or derivative groups, or wherein the solid polymer is derived from at least one reactant containing at least one ether group.

**440.16 Solid polymer derived from two or more polycarboxylic acid or derivatives and a single polyhydroxy compound:**
This subclass is indented under subclass 440.01. Subject matter wherein the solid polymer is derived from two or more polycarboxylic acids or derivative reactants and a single polyhydroxy compound.