

This Class 560 is considered to be an integral part of Class 260 (see the Class 260 schedule for the position of this Class in schedule hierarchy). This Class retains all pertinent definitions and class lines of Class 260.

| <b>ORGANIC COMPOUNDS (CLASS 532,<br/>SUBCLASS 1)</b> |  |    |   |
|--|--|----|---|
| 1  | .Carboxylic acid esters  | 22 | ....Additional nitrogen in acid moiety  |
| 2  | ..With preservative  | 23 | ....Oxy, aldehyde or ketone group in acid moiety  |
| 3  | ...Aromatic polycarboxylic acid esters   | 24 | ....Carbamic acid   |
| 4  | ...Acyclic unsaturated monocarboxylic acid esters  | 25 | .....Polycarbamic   |
| 5  | ..Hydrophenanthrene in acid moiety   | 26 | .....Polyoxy alcohol moiety   |
| 6  | ...Polycyclo ring system having the hydrophenanthrene and at least one additional ring as cyclos | 27 | .....Plural rings in acid moiety  |
| 7  | ...1,4a-Dimethylhydrophenanthrene-1-carboxylic acid  | 28 | .....Ortho fused  |
| 8  | ..Aromatic acid moiety   | 29 | ....Oxy in acid moiety  |
| 9  | ...Sulfur in acid moiety   | 30 | ....Halogen in acid moiety  |
| 10   | ....Ortho fused rings in acid moiety   | 31 | .....Ring in alcohol moiety   |
| 11   | ....Sulfoxy in acid moiety   | 32 | ....Ring in alcohol moiety  |
| 12   | .....Nitrogen in acid moiety   | 33 | ....Sulfur, nitrogen, halogen or additional oxy in alcohol moiety                         |
| 13   | .....Plural nitrogens in acid moiety   | 34 | ...Ureido, guanido or hydrazino in acid moiety  |
| 14   | .....Sulfonic acids, salts or acid halides   | 35 | ...Amidine, azomethine, ketimine or oxime in acid moiety                                  |
| 15   | ....Sulfur, not bonded directly to a ring, in same side chain as ester function                  | 36 | ...Plural rings bonded directly to the same cyclic carbon in acid moiety                  |
| 16   | .....Nitrogen in acid moiety   | 37 | ...The nitrogen is not bonded directly to a ring  |
| 17   | ....Sulfur, bonded directly to a ring, in same side chain as ester function                      | 38 | ....The nitrogen is in same side chain as ester function                                  |
| 18   | ....Ester function attached directly to a ring   | 39 | .....Oxy in acid moiety   |
| 19   | ...Nitrogen in acid moiety other than as nitroso or isocyanate (e.g., amino acid esters, etc.)   | 40 | .....Phenylalanines   |
| 20   | ....Nitro bonded to carbon in acid moiety  | 41 | .....Amide in acid moiety   |
| 21   | .....Plural rings in acid moiety   | 42 | ....Oxy in acid moiety  |
|  |  | 43 | ...The nitrogen is bonded directly to a ring and is in same side chain as ester function  |
|  |  | 44 | ....Polycarboxylic acid   |
|  |  | 45 | ....Oxy in acid moiety  |
|  |  | 46 | ....Benzoic acid substituted on ring with oxy and nitrogen                                |
|  |  | 47 | ...Halogen in acid moiety   |
|  |  | 48 | ...Plural rings in acid moiety with nitrogen bonded directly to at least one of the rings |
|  |  | 49 | ...Nitrogen in alcohol moiety   |
|  |  | 50 | ...Polyoxy alcohol moiety   |
|  |  | 51 | ...Aldehyde or ketone group in acid moiety  |
|  |  | 52 | ...Plural rings bonded directly to the same carbonyl in acid moiety                       |
|  |  | 53 | ...Oxy in acid moiety   |
|  |  | 54 | ...Polycarboxylic acid  |
|  |  | 55 | ...Oxy in acid moiety   |

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| 56 | ....Ortho fused rings in acid moiety   | 91  | .....Polyoxyalkylene alcohol moiety                                      |
| 57 | ....Plural rings bonded directly to the same acyclic carbon in acid moiety   | 92  | .....Preparing esters by ester interchange                               |
| 58 | .....Nitrogen in alcohol moiety  | 93  | .....Preparing esters from alkylene oxides                               |
| 59 | ....Rings bonded directly to each other in acid moiety                       | 94  | .....Preparing esters from acid or from nitrile and diol                 |
| 60 | ....Oxy, not bonded directly to a ring, in same side chain as ester function | 95  | ...Unsaturation in alcohol moiety  |
| 61 | ....Oxy, bonded directly to a ring, in same side chain as ester function     | 96  | ....Processes  |
| 62 | .....Halogen in acid moiety  | 97  | .....Carbonylation   |
| 63 | .....Polyoxy alcohol moiety  | 98  | .....Esterification of acid, salt, acid halide or anhydride with alcohol |
| 64 | ....Ester function attached directly to a ring                               | 99  | .....Metal containing catalyst utilized                                  |
| 65 | .....Halogen in acid moiety  | 100 | ..Naphthyl in acid moiety  |
| 66 | .....Acylated  | 101 | ..Plural rings bonded directly to the same carbon in acid moiety         |
| 67 | .....Phenolic hydroxy or metallate   | 102 | ..Rings bonded directly to each other in acid moiety                     |
| 68 | .....Tannins and reaction products thereof                                   | 103 | ..Monocyclic acid moiety   |
| 69 | .....Extraction from bark or vegetable material                              | 104 | ...Additional unsaturation in acid moiety                                |
| 70 | .....Polyphenolic hydroxy or metallate                                       | 105 | ...Carboxyl, not bonded directly to a ring, in acid moiety               |
| 71 | .....Salicylic acid  | 106 | ...Ring in alcohol moiety  |
| 72 | .....Ring in alcohol moiety  | 107 | .....Plural rings in alcohol moiety                                      |
| 73 | .....Ring in alcohol moiety  | 108 | .....Esterified phenolic hydroxy   |
| 74 | ....Nitrogen in alcohol moiety   | 109 | .....Esterified phenolic hydroxy   |
| 75 | ....Phenolic hydroxy or metallate  | 110 | ...Nitrogen in alcohol moiety  |
| 76 | ...Polycarboxylic acid   | 111 | ...Halogen in alcohol moiety   |
| 77 | ....Producing carboxyl group by oxidation                                    | 112 | ...Polyoxy alcohol moiety  |
| 78 | ....Purification or recovery   | 113 | ...Unsaturation in alcohol moiety  |
| 79 | .....Of ester of polyoxy alcohols  | 114 | ..Preparing alicyclic acid esters by carbonylation                       |
| 80 | ....Ortho fused rings in acid moiety   | 115 | ..Alicyclic carbamates   |
| 81 | ....Esterified carboxy not bonded directly to a ring                         | 116 | ..Plural alicyclic rings in acid moiety                                  |
| 82 | .....Malonates   | 117 | ..Tricyclo ring system in acid moiety                                    |
| 83 | ....Halogen in acid moiety   | 118 | ...Two rings only in acid moiety   |
| 84 | ....Ring in alcohol moiety   | 119 | ...Ortho fused   |
| 85 | .....Aromatic alcohol moiety   | 120 | ....2,2,1-bicyclo  |
| 86 | .....Esterified phenolic hydroxy   | 121 | ..Cyclopentyl in acid moiety (e.g., prostaglandins, etc.)                |
| 87 | ....Sulfur or halogen in alcohol moiety                                      | 122 | ...Cyclopentyl-COOR, -C-COOR or -C-C-COOR                                |
| 88 | ....Nitrogen in alcohol moiety   | 123 | ..Cyclobutyl in acid moiety  |
| 89 | ....Polyoxy alcohol moiety   |     |  |
| 90 | .....Additional esterifying acid   |     |  |

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| 124 | ..Cyclopropyl in acid moiety  | 156 | ....Nitro bonded to carbon in acid moiety                 |
| 125 | ..Alicyclic acid moiety containing N, S, P, B or halogen                                      | 157 | ....Carbamic acid   |
| 126 | ..Alicyclic acid moiety containing oxy, aldehyde or ketone group                              | 158 | .....Polycarbamic   |
| 127 | ..Alicyclic polycarboxylic acid moiety  | 159 | .....Additional nitrogen in acid moiety                   |
| 128 | ..Alicyclic acid moiety containing unsaturation   | 160 | .....Oxy in acid moiety                                   |
| 129 | ..Acyclic acid moiety   | 161 | .....Halogen in acid moiety                               |
| 130 | ...Esterified phenolic hydroxy  | 162 | .....Cyclic alcohol moiety                                |
| 131 | ....Preparing esters by oxidation   | 163 | .....Aromatic alcohol moiety                              |
| 132 | ....Carbamic acid   | 164 | .....Polyoxy alcohol moiety                               |
| 133 | .....Plural rings in phenolic moiety  | 165 | .....Sulfur or nitrogen in alcohol moiety                 |
| 134 | .....Ortho fused  | 166 | .....Polyoxy alcohol moiety                               |
| 135 | .....Sulfur in phenolic moiety  | 167 | .....Halogen in alcohol moiety                            |
| 136 | .....Nitrogen in phenolic moiety  | 168 | ....Amidine, azomethine, ketimine or oxime in acid moiety |
| 137 | .....Sulfur, halogen or additional nitrogen or oxygen in carbamic acid moiety                 | 169 | ....Additional nitrogen in acid moiety                    |
| 138 | ....Plural rings in phenolic moiety   | 170 | ....Oxy, aldehyde or ketone group in acid moiety          |
| 139 | .....Ortho fused  | 171 | ....Polycarboxylic acid                                   |
| 140 | .....Plural rings bonded directly to the same carbon in phenolic moiety                       | 172 | ....Halogen or unsaturation in acid moiety                |
| 141 | .....Rings bonded directly to each other in phenolic moiety                                   | 173 | ....Cyclic alcohol moiety                                 |
| 142 | ....Nitrogen or sulfur in phenolic moiety   | 174 | ..Aldehyde or ketone group in acid moiety                 |
| 143 | ....Salicylic acid or functional derivative   | 175 | ....Preparing esters by carbonylation                     |
| 144 | ....Polyoxy phenolic moiety   | 176 | ....Polycarboxylic acid                                   |
| 145 | ....Sulfur, nitrogen, halogen, oxy, or aldehyde or ketone group in acid moiety                | 177 | ....Aldehyde group in acid moiety                         |
| 146 | ....Polycarboxylic acid   | 178 | ....Acetoacetic acid                                      |
| 147 | ....Sulfur in acid moiety   | 179 | ...Oxy in acid moiety                                     |
| 148 | ....Carbamic acid   | 180 | ....Polycarboxylic acid                                   |
| 149 | ....Sulfoxy in acid moiety  | 181 | .....Unsaturation in acid moiety                          |
| 150 | .....Sulfonyl or sulfinyl in acid moiety  | 182 | .....Polyoxy alcohol moiety                               |
| 151 | .....Polycarboxylic acid  | 183 | ....Unsaturation in acid moiety                           |
| 152 | ....Thio ether in acid moiety   | 184 | ....Halogen in acid moiety                                |
| 153 | .....Nitrogen or halogen in acid moiety   | 185 | ....Acylated oxy in acid moiety                           |
| 154 | .....Polycarboxylic acid  | 186 | ....Polyoxy acid moiety                                   |
| 155 | ..Nitrogen in acid moiety other than as nitroso or isocyanate (e.g., amino acid esters, etc.) | 187 | ....Alkoxy in acid moiety                                 |
|     |   | 188 | ....Cyclic alcohol moiety                                 |
|     |   | 189 | ....Polyoxy alcohol moiety                                |
|     |   | 190 | ...Polycarboxylic acid                                    |
|     |   | 191 | ....Purification or recovery                              |
|     |   | 192 | ....Halogen in acid moiety                                |
|     |   | 193 | ....Cyclic alcohol moiety                                 |
|     |   | 194 | .....Plural rings in alcohol moiety                       |
|     |   | 195 | ....Phosphorus or sulfur in alcohol moiety                |
|     |   | 196 | ....Nitrogen in alcohol moiety                            |
|     |   | 197 | ....Halogen in alcohol moiety                             |
|     |   | 198 | ....Polyoxy alcohol moiety                                |

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| 199 | .....Additional monooxy alcohol or monocarboxylic acid (e.g., complex esters, etc.) | 232   | ....Preparing esters by carbonylation                                     |
| 200 | .....Preparing esters from alkylene oxides  | 233   | .....Of olefins   |
| 201 | ....Unsaturation in alcohol moiety  | 234   | ....Preparing esters by ester interchange                                 |
| 202 | ....Preparing esters by oligomerization   | 235   | .....From alkyl sulfates  |
| 203 | ....Preparing esters by alkylation or isomerization                                 | 236   | ....Preparing esters from halogenated hydrocarbons                        |
| 204 | ....Preparing esters by esterification or carbonylation                             | 237   | .....From alkenyl halides   |
| 205 | ...Unsaturation in acid moiety  | 238   | ....Preparing esters from aldehydes                                       |
| 206 | ....Preparing esters by carbonylation   | 239   | ....Preparing esters by dehydrogenation of alcohols                       |
| 207 | .....Group VIII noble metal catalyst utilized                                       | 240   | ....Preparing esters from ethers  |
| 208 | ....Formation of carboxyl group by oxidation  | 241   | ....Preparing esters from hydrocarbons                                    |
| 209 | ....Preparing esters from alkylene oxides   | 241.1 | .....By oxidation of hydrocarbon mixtures                                 |
| 210 | ....Preparing esters from aldehydes   | 242   | .....From acetylenic hydrocarbons   |
| 211 | ....Formation of ethylenic unsaturation   | 243   | .....From olefins utilizing Group VIII noble metal catalyst               |
| 212 | .....By dehydration or dealcoholization   | 244   | .....From polyolefins   |
| 213 | .....By dehalogenation or dehydrohalogenation                                       | 245   | .....Gas phase  |
| 214 | .....By dehydrogenation   | 246   | ....Preparing polyoxy alcohol esters from olefins                         |
| 215 | ....Preparing esters from nitriles or amides  | 247   | ....Preparing alkyl esters from olefins                                   |
| 216 | ....Preparing esters by depolymerization  | 248   | ....Purification or recovery  |
| 217 | ....Preparing esters by ester interchange   | 249   | ....Terpene alcohol moiety  |
| 218 | ....Purification or recovery  | 250   | ....Nitrogen in alcohol moiety other than as nitro, nitroso or isocyanate |
| 219 | ....Halogen in acid moiety  | 251   | .....Plural nitrogens in alcohol moiety                                   |
| 220 | ....Cyclic alcohol moiety   | 252   | .....Polyoxy alcohol moiety   |
| 221 | ....Aromatic alcohol moiety   | 253   | .....Acyclic alcohol moiety   |
| 222 | ....Phosphorus, sulfur or nitrogen in alcohol moiety                                | 254   | ....Aromatic alcohol moiety   |
| 223 | ....Halogen in alcohol moiety   | 255   | .....Plural rings in alcohol moiety                                       |
| 224 | ....Polyoxy alcohol moiety  | 256   | ....Polycyclo-alcyclic ring system in alcohol moiety                      |
| 225 | ....Unsaturation in alcohol moiety  | 257   | .....Nor- or homo-cyclopentanohydrophenanthrenes                          |
| 226 | ...Halogen in acid moiety   | 258   | .....Nor-A ring   |
| 227 | ....Fluorine in acid moiety   | 259   | ....2,6,6-trialkyl cyclohexenyl in alcohol moiety                         |
| 228 | ....Cyclic alcohol moiety   | 260   | ....Vitamin A alcohol moiety  |
| 229 | ....Halogen in alcohol moiety   | 261   | ....Acyclic alcohol moiety having unsaturation                            |
| 230 | ....Polyoxy alcohol moiety  | 262   | .....Substituted  |
| 231 | ...Unsubstituted acids of the acetic series   | 263   | ....Acyclic polyoxy alcohol moiety  |
|     |   | 264   | .....Substituted  |
|     |   | 265   | ....Acyclic monohydric alcohol moiety                                     |

- 266 . . . . .Substituted
- 300 .Hypohalite or perhypohalite esters (i.e., compounds having the -O-halo group or the -O-O-halo group bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)
- 301 .Cyanate esters (i.e., compounds having the -OCN group bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)
- 302 .Compounds having the group -C(=X)-X-nX-, wherein the X's may be the same or diverse chalcogens, nX is a divalent chalcogen or a chain of divalent chalcogens single bonded to each other, and the terminal X is bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon (e.g., percarboxylate esters, etc.)
- 303 .Sulfohydroxamate esters or chalcogen analogues thereof (i.e., compounds having the -S(=O)(=O)-NH-X- group, wherein X is chalcogen and substitution may be made for hydrogen only, and wherein the X is bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)
- 304 .Peroxynitrate esters (i.e., compounds having the -O-O-N(=O)(=O) group bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)
- 305 .Perborate esters or chalcogen analogues thereof (i.e., compounds having the -X-X- group, wherein the X's are the same or diverse chalcogens, bonded directly to boron and to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)
- 306 .Perhalate esters (i.e., compounds having the -O-halo(=O)(=O)(=O) group bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)
- 307 .Esters having the -S(=O)(=O)-S- group, wherein the divalent sulfur is bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon (e.g., thiolsulfonate esters, etc.)
- 308 .Oxygen bonded directly to the hexavalent sulfur of the -S(=O)(=O)-S- group (i.e., thiosulfate esters)
- 309 .Nitrogen attached indirectly to the -S(=O)(=O)-S- group by acyclic nonionic bonding
- 310 .Esters having the -S(=O)-S- group, wherein the divalent sulfur is bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon (e.g., thiolsulfinate esters, dithiosulfurous acid esters, etc.)
- 311 .Perhydroxamate esters or chalcogen analogues thereof (i.e., compounds having the -C(=X)-NH-X-X- group, wherein the X's are the same or diverse chalcogens and substitution may be made for hydrogen only, and wherein the terminal X is bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)
- 312 .Hydroxamate esters or chalcogen analogues thereof (i.e., compounds having the -C(=X)-NH-X- group, wherein the X's may be the same or diverse chalcogens and substitution may be made for hydrogen only, and wherein the single bonded X is bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)

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| 313 | ..Nitrogen bonded directly to the carbon of the $-C(=X)-NH-X-$ group   | 334 | ..Carbodiimide containing (i.e., $-N=C=N-$ containing)   |
| 314 | ...The single bonded X is sulfur, or the substituent nitrogen is bonded directly to acyclic or alicyclic carbon  | 335 | ..Biuret containing (i.e., $-NH-C(=O)-NH-C(=O)-NH-$ containing, wherein substitution may be made for hydrogen only)              |
| 315 | ..Carbocyclic ring bonded directly to the carbon of the $-C(=X)-NH-X-$ group   | 336 | ..Processes  |
| 316 | ..Hyponitrite esters (i.e., compounds having the $-O-N=N-O-$ group bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)   | 337 | ...Isocyanic acid, or salt thereof, as reactant  |
| 317 | ..Esters having the $-N=S=O$ group bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon (i.e., sulfinylamines)   | 338 | ...Processes for forming the isocyanate group  |
| 318 | ..Persulfonate esters (i.e., compounds having the $-S(=O)(=O)-O-O-$ group, wherein the terminal oxygen is bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)                                    | 339 | ...Cyanate reactant (i.e., reactant contains $-OCN$ group)   |
| 319 | ..Perthioimidate esters (i.e., compounds having the perthioimidate group, $HN=CH-S-S-$ , wherein substitution may be made for hydrogen only, bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon) | 340 | ...Hetero ring containing reactant   |
| 330 | ..Isocyanate esters (i.e., compounds containing the isocyanate group, $-N=C=O$ , bonded directly to carbon, which carbon may be single bonded to any atom but may be multiple bonded only to carbon)   | 341 | ...Carbon monoxide utilized  |
| 331 | ..With preservative or stabilizer  | 342 | ....Reactant contains nitro group bonded directly to carbon  |
| 332 | ..Nitrogen containing preservative or stabilizer   | 343 | ...Azide reactant (i.e., reactant contains the azide group)  |
| 333 | ..Phosphorus, silicon, or phenolic hydroxy containing preservative or stabilizer   | 344 | ...Reactant containing $-NH-C(=O)-NH-$ group (wherein substitution may be made for hydrogen only)                                |
|     |  | 345 | ...Carbamate reactant (i.e., reactant contains $-O-C(=O)-NH-$ group (wherein substitution may be made for hydrogen only)         |
|     |  | 346 | ...Reactant containing nitrogen double or triple bonded to carbon (e.g., nitriles, isonitriles, cyanogen halides, etc.)          |
|     |  | 347 | ...Carbonyl dihalide reactant (e.g., phosgene, etc.)   |
|     |  | 348 | ...Carbamyl halide reactant (i.e., reactant contains $halo-C(=O)-NH-$ group, wherein substitution may be made for hydrogen only) |
|     |  | 349 | ...Halogenation of isocyanate esters   |
|     |  | 350 | ...Isocyanate exchange reactions (i.e., $A-NCO + B-X = B-NCO + A-X$ )  |
|     |  | 351 | ...Processes of reacting isocyanate esters of known structure to yield products of indeterminate structure                       |
|     |  | 352 | ...Purification or recovery  |
|     |  | 353 | ...Epoxy compound, or metal, utilized  |

- 354 ..Containing polycyclo ring system having alicyclic ring as one of the cyclos
- 355 ..Acyclic carbon bonded directly to the isocyanate group
- 356 ...Halogen attached indirectly to the isocyanate group by acyclic nonionic bonding
- 357 ..Chalcogen, single bonded directly to carbon, attached indirectly to the isocyanate group by acyclic nonionic bonding (e.g., ether group containing, etc.)
- 358 ..Benzene ring bonded directly to the isocyanate group
- 359 ...Plural benzene rings bonded directly to isocyanate groups (e.g., diisocyanatodiphenylmethane, etc.)
- 360 ...Plural isocyanate groups bonded directly to the same benzene ring

**FOREIGN ART COLLECTIONS**

FOR 000 CLASS-RELATED FOREIGN DOCUMENTS

