

This Class 514 is considered to be an integral part of Class 424 (see the Class 424 schedule for the position of this Class in schedule hierarchy). This Class retains all pertinent definitions and class lines of Class 424.			
1	DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAINING (DOAI)		
2	..Peptide containing (e.g., protein, peptones, fibrinogen, etc.) DOAI	27	...Oxygen of the saccharide radical bonded directly to a nonsaccharide hetero ring or a polycyclo ring system which contains a nonsaccharide hetero ring
3	..Insulin or derivative	28	...The hetero ring has 8 or more ring carbons
4	...With an additional active ingredient	29	....The hetero ring has exactly 13 ring carbons (e.g., erythromycin, etc.)
5	..Iodine containing	30	....The hetero ring has exactly 15 ring carbons
6	..Heavy metal containing (e.g., hemoglobin, etc.)	31	....The hetero ring has 20 or more ring carbons (e.g., nystatin, etc.)
7	..Phosphorus containing	32	...Oxygen of the saccharide radical bonded to a nonsaccharide hetero ring by acyclic carbon bonding
8	..Glycoprotein (carbohydrate containing)	33	...Oxygen of the saccharide radical bonded directly to a polycyclo ring system of three or more carbocyclic rings
9	..Cyclopeptides	34	...Oxygen of the saccharide radical bonded directly to a polycyclo ring system of four carbocyclic rings (e.g., daunomycin, etc.)
10	...Bicyclic	35	...Oxygen of the saccharide radical bonded directly to a cyclohexyl ring
11	...Monocyclic	36	...Two or more nitrogen atoms bonded directly to the cyclohexyl ring
12	..25 or more peptide repeating units in known peptide chain structure	37	....The nitrogen atoms are in N-C(=N)-N groups (e.g., streptomycin, etc.)
13	..16 to 24 peptide repeating units in known peptide chain	38	....Two saccharide radicals bonded through only oxygen to adjacent ring carbons of the cyclohexyl ring
14	..12 to 15 peptide repeating units in known peptide chain	39	....Three or more saccharide radicals (e.g., neomycin, etc.)
15	..9 to 11 peptide repeating units in known peptide chain	40	....Two saccharide radicals bonded through only oxygen to 4- and 6- positions of the cyclohexyl ring
16	..7 or 8 peptide repeating units in known peptide chain	41	....Kanamycin or derivative
17	..5 or 6 peptide repeating units in known peptide chain	42	..N-glycoside
18	..3 or 4 peptide repeating units in known peptide chain	43	...Nitrogen containing hetero ring
19	..2 peptide repeating units in known peptide chain		
20	...Guanidine containing		
21	..Produced by or extracted from animal tissue		
22	..Lignin or derivative DOAI		
23	..Carbohydrate (i.e., saccharide radical containing) DOAI		
24	..S-glycoside		
25	..O-glycoside		
26	...Cyclopentanohydrophenanthrene ring system		

44	....Polynucleotide (e.g., RNA, DNA, etc.)	77	..Inner salt (e.g., betaine, etc.)
45	....Purines (including hydrogenated) (e.g., adenine, guanine, etc.)	78	...Lecithins
46	.....Adenosine or derivative	79	..Nitrogen containing hetero ring
47	.....Phosphorus containing	80	...Polycylo ring system having a ring nitrogen in the system
48	.....Phosphorus containing	81	...Nonshared hetero atoms in at least two rings of the polycylo ring system
49	....Pyrimidines (including hydrogenated) (e.g., cytosine, etc.)	82	...Quinolinyl or isoquinolinyl (including hydrogenated)
50	.....2,4-diketone pyrimidine or derivative (e.g., uracil, etc.)	83	...Hetero ring is three-membered consisting of one nitrogen and two carbons
51	.....Phosphorus containing	84	...Hetero ring is six-membered consisting of three nitrogens and three carbons
52	....Phosphorus containing (e.g., Vitamin B12, etc.)	85	...Hetero ring is six-membered consisting of two nitrogens and four carbons
53	..Dissacharide	86	....Nitrogen atoms occupy 1 and 3- positions
54	..Polysaccharide	87	....PX- bonded directly to 1,3-diazine at 2- position (X is chalcogen)
55	...Chitin or derivative	88	.....Two or more PX- groups attached to the same 1,3-diazine (X is chalcogen)
56	...Heparin or derivative	89	...Hetero ring is six-membered and includes only one ring nitrogen
57	...Cellulose or derivative	90	....Chalcogen in the six-membered hetero ring
58	...Dextrin or derivative	91	...Hetero ring is five-membered
59	...Dextran or derivative	92	....Two or more hetero atoms in the five-membered ring
60	...Starch or derivative	93	....Triazoles (including hydrogenated)
61	...Tri- or tetrasaccharide	94	....Diazoles (including hydrogenated)
62	..Glucosamine or derivative	95	..Sulfur containing hetero ring
63	..Silicon containing DOAI	96	...Polycylo ring system having the hetero ring as one of the cyclos
64	..Boron containing DOAI	97	...Two or more sulfurs in the hetero ring
65	..Pyrethrum plant derived material or plant derived rotenone compound containing DOAI	98	...Oxygen in the hetero ring
66	..With heterocyclic compound	99	..Oxygen containing hetero ring
67	..Methylenedioxyphenyl group containing (e.g., piperonyl butoxide, etc.)	100	...Polycylo ring system having the hetero ring as one of the cyclos
68	..With carboxylic acid ester	101	...Two or more oxygen in the hetero ring
69	..With carboxylic acid metal salt		
70	..With organic nitrogen containing compound		
71	...Sulfur containing organic nitrogen compound		
72	..With organic oxygen containing compound		
73	...Phosphorus or halogen containing organic oxygen compound		
74	..With hydrocarbon or halohydrocarbon		
75	..Phosphorus containing other than solely as part of an inorganic ion in an addition salt DOAI		
76	..Amine addition salt of organic phosphorus containing acid		

102	..Two or more phosphorus atoms directly or indirectly bonded together by only covalent bonds	127	...Thioether, sulfoxide or sulfone
103	...Phosphorus acid ester of polyhydric alcohol or thioalcohol (e.g., P-X-R-X-P group, etc., wherein X is chalcogen and R is the residue of the polyhydric alcohol or thioalcohol)	128	...Sulfur bonded directly to a benzene ring
104	...Benzene ring in the alcohol moiety	129	..Oxygen bonded directly to a carbon or hydrogen and wherein the oxygen is not bonded directly to phosphorus
105	...Phosphorus is part of a ring	130	...The oxygen is bonded directly to a benzene ring
106	...P-O-P or P-S-P containing (e.g., anhydrides, etc.)	131	..Nitro group bonded to a carbon
107	...Benzene ring containing	132	...Nitro group is directly bonded to a benzene ring which benzene ring is either bonded directly bonded to phosphorus or indirectly bonded to phosphorus through a chalcogen
108	..Acyclic and contains at least one carbon atom between the phosphorus atoms	133	...Two or more such benzene rings
109	..P-X-X containing (X is chalcogen)	134	..Acyclic carbon to carbon unsaturation
110	..Phosphorus is part of a ring	135	...Alkyne
111	...Polycyclo ring system having the phosphorus containing ring as one of the cyclos	136	...Phosphate ester having three ester groups (e.g., DDVP, etc.)
112	..Cyano or isocyano containing	137	..Nitrogen bonded directly to phosphorus
113	..Cyano or isocyano bonded directly to a benzene ring	138	...N-P-N or N-N-P containing
114	..Nitrogen, other than nitro or nitroso, bonded indirectly to phosphorus	139	..Phosphorus bonded directly to halogen
115	...N-C(=X)-N containing (X is chalcogen)	140	..(C)(R)P=X(-XC) containing (i.e., Phosphinate (X is chalcogen; R is C or H)
116	...Sulfur single bonded directly to nitrogen	141	..(CX-) (C)P=X(XH) or (CX-) (R)P=X(XC) containing (e.g., phosphonate, etc.) (X is chalcogen; R is C or H)
117	...N-(O=)S(=O) containing (i.e., sulfonamides)	142	..(CX-) (C)P(C), (CX-) (RX-) P(C), (CX-) P(XH) (XH) or (CX-) (CX-) P(-XR) containing (X is chalcogen; R is C or H) (e.g., phosphinite, phosphite, etc.)
118	...Phosphorus single bonded directly to nitrogen	143	..Ester of (HX)P=X(XH) (XH) (X is chalcogen) (e.g., phosphate, etc.)
119	...C(=O)N containing	144	...Triester
120	..C=O other than as ketone or aldehyde, attached directly or indirectly to phosphorus	145	...Three benzene rings bonded directly to chalcogen
121	...Plural C=O groups, other than as ketone or aldehyde	146	...Two benzene rings bonded directly to chalcogen
122	...Malathion	147	...One benzene ring bonded directly to chalcogen
123	....With N-C(=O)-O containing compound	148	...Diester
124	..C=O, other than as ketone or aldehyde, attached to a benzene ring	149	..Azoxy DOAI
125	..Ketone or aldehyde containing		
126	..Sulfur not bonded directly to phosphorus		

150	.Acyclic nitrogen double bonded to acyclic nitrogen, acyclic nitrogen triple bonded to acyclic nitrogen or azide DOAI	174	...-O-C-O- is part of a hetero ring (e.g., acetonide, etc.)
151	..Acyclic C=N=N-N containing	175	...-C(=O)-O-is part of a hetero ring (e.g., lactone, etc.)
152	.3,10-dihydroxy-2-naphthacene carboxamide or derivative (e.g., tetracycline, etc.) DOAI	176	...Nitrogen containing hetero ring
153	..With stabilizer or preservative	177	..Oxygen double bonded to a ring carbon of the cyclopentanohydrophenanthrene ring system
154	..With an additional active ingredient (excludes reaction product or complex)	178	...Oxygen single bonded to a ring carbon of the cyclopentanohydrophenanthrene ring system
155	.Para-N-benzene - sulfoxy-N containing DOAI, and said benzene ring is not part of a polycyclo ring system	179	....Modified C-ring (except methyl in 13-position) (e.g., double bond containing, substituted, etc.)
156	..Hetero ring containing	180	.....9-position substituted
157	...The hetero ring is six-membered and includes at least two nitrogens and no other hetero atoms	181	....21-position substituted
158	...The hetero ring is five-membered	182	..Oxygen single bonded to a ring carbon of the cyclopentanohydrophenanthrene ring system
159	.Ortho-hydroxybenzoic acid (i.e., salicylic acid) or derivative DOAI	183	.Heterocyclic carbon compounds containing a hetero ring having chalcogen (i.e., O,S,Se or Te) or nitrogen as the only ring hetero atoms DOAI
160	..With additional ortho-hydroxybenzoic acid compound	184	..Heavy metal containing (including salts)
161	..With heterocyclic compound	185	...Polycyclo ring system
162	..With organic nitrogen containing compound	186	....Bicyclo ring system
163	..With carboxylic acid, ester or metal salt thereof	187	.....Quinolines or isoquinolines (including hydrogenated)
164	..With organic oxygen containing compound	188	..Hetero ring is six-membered consisting of one nitrogen and five carbons
165	..Aspirin per se (i.e., 2-(acetyloxy)benzoic acid)	189	...Tin
166	..Nitrogen containing (e.g., anilides, etc.)	190	...Mercury
167	.9,10-seco-cyclopentanohydrophenanthrene ring system (e.g., vitamin D, etc.) DOAI	191	..Aluminum (including salts)
168	..With a vitamin type active ingredient	192	..1-thia-4-aza-bicyclo (3.2.0) heptane ring containing (including dehydrogenated) (e.g., penicillins, etc.)
169	.Cyclopentanohydrophenanthrene ring system DOAI	193	...Spiro or additional polycyclo ring system
170	..Plural Compounds containing cyclopentanohydrophenanthrene ring systems	194	...6,6-di-substituted
171	..With additional active ingredient	195	...3-position substituent contains -COOC- group
172	..Hetero ring containing	196	...6-position substituent contains hetero ring
173	...Spiro ring system	197	...6-position substituent contains carbocyclic ring

- 198Ampicillin per se or salt thereof
- 199Penicillin G per se or salt thereof (e.g., procaine pencillin G, etc.)
- 200 ..1-thia-5-aza-bicyclo (4.2.0) octane ring containing (including dehydrogenated) (e.g., cephalosporins, etc.)
- 201 ...7,7-di-substituted
- 202 ...Additional hetero ring
- 2033-position substituent contains pyridine ring
- 2043-position substituent contains sulfur
- 205The additional hetero ring is part of a polycyclo ring system
- 2067-position substituent contains hetero ring
- 207Alkyl, hydroxyalkyl, alkoxyalkyl or alkanoyloxyakyl bonded directly to 3-position
- 208 ...Sulfur containing substituent
- 209 ...Alkyl, hydroxyalkyl, alkoxyalkyl, or alkanoyloxyakyl bonded directly to 3-position
- 210.01 ..Hetero ring is four-membered and includes at least one ring nitrogen
- 210.02 ..Chalcogen double bonded directly to a ring carbon of the four-membered hetero ring which is adjacent to the ring nitrogen
- 210.03Polycyclo ring system having the four-membered hetero ring as one of the cyclos
- 210.04Bicyclo ring system having the four-membered hetero ring as one of the cyclos
- 210.05Plural ring hetero atoms in the bicyclo ring system
- 210.06Ring oxygen in the bicyclo ring system
- 210.07The other cyclo of the bicyclo ring system is six-membered
- 210.081-oxa-5-aza-bicyclo (4.2.0) octanes (including unsaturated)
- 210.09The other cyclo of the bicyclo ring system is five-membered
- 210.1Sulfur bonded directly to the five-membered cyclo of the bicyclo ring system (e.g., thienamycin, etc.)
- 210.11Additional hetero ring attached directly to the sulfur
- 210.12The additional hetero ring contains ring nitrogen
- 210.13Having $-C(=X)-$, wherein X is chalcogen, bonded directly to the additional hetero ring
- 210.14Polycyclo ring system bonded directly to the five-membered cyclo of the bicyclo ring system
- 210.15Chalcogen bonded directly to the ring nitrogen of the four-membered ring
- 210.16 ...Polycyclo ring system having the four-membered hetero ring as one of the cyclos
- 210.17 ..Having $-C(=X)-$, wherein X is chalcogen, bonded directly to the four-membered hetero ring
- 210.18Additional hetero ring attached directly or indirectly to the four-membered hetero ring by nonionic bonding
- 210.19 ..Additional hetero ring attached directly or indirectly to the four-membered hetero ring by nonionic bonding
- 210.2The additional hetero ring contains ring nitrogen
- 210.21Polycyclo ring system having the additional hetero ring as one of the cyclos
- 211.01 ..Hetero ring contains seven members including nitrogen, carbon and chalcogen
- 211.02 ...Monocyclic cyclopentyl ring bonded directly to the seven-membered hetero ring (e.g., prostaglandins, etc.)
- 211.03 ...Chalcogen double bonded directly to a ring carbon which is adjacent to the ring nitrogen
- 211.04Polycyclo ring system which contains the seven-membered hetero ring as one of the cyclos

- 211.05Bicyclo ring system having the seven-membered hetero ring as one of the cyclos
- 211.06Ring chalcogen and ring nitrogen are in the 1,5-positions of the seven-membered hetero ring
- 211.07Nitrogen attached directly or indirectly to the ring nitrogen of the seven-membered hetero ring by acyclic nonionic bonding (e.g., Diltiazem, etc.)
- 211.08 ...Plural ring nitrogens in the seven-membered hetero ring
- 211.09 ...Polycyclo ring system which contains the seven-membered hetero ring as one of the cyclos
- 211.1Three ring hetero atoms in the polycyclo ring system
- 211.11Tricyclo ring system having the seven-membered hetero ring as one of the cyclos
- 211.12Ring nitrogen is shared by plural cyclos of the tricyclo ring system
- 211.13Nitrogen bonded directly to ring carbon of the seven-membered hetero ring
- 211.14Having -C(=X)-, wherein X is chalcogen, bonded directly to the seven-membered hetero ring
- 211.15 ...Additional nitrogen containing hetero ring attached directly or indirectly to the seven-membered hetero ring by nonionic bonding
- 212.01 ..Hetero ring is seven-membered consisting of one nitrogen and six carbons
- 212.02 ...Spiro
- 212.03 ..Chalcogen double bonded directly to a ring carbon of the seven-membered hetero ring which is adjacent to the ring nitrogen
- 212.04Polycyclo ring system having the seven-membered hetero ring as one of the cyclos
- 212.05Plural cyclos of the polycyclo ring system share ring nitrogen of the seven-membered hetero ring
- 212.06Plural ring hetero atoms in the polycyclo ring system
- 212.07Bicyclo ring system having the seven-membered hetero ring as one of the cyclos
- 212.08 ...Additional hetero ring attached directly or indirectly by nonionic bonding to the seven-membered hetero ring
- 213.01 ...Polycyclo ring system having the seven-membered hetero ring as one of the cyclos
- 214.01 ...Ring nitrogen of the seven-membered hetero ring is shared by an additional cyclo of the polycyclo ring system
- 214.02Plural ring nitrogens in the polycyclo ring system
- 214.03Two of the cyclos share at least three ring members (i.e., bridged)
- 215Additional hetero atom in the polycyclo ring system
- 216Two of the cyclos share at least three ring carbons (i.e., bridged)
- 217Tricyclo ring system having the seven-membered hetero ring as one of the cyclos
- 217.013-Benzazepines (including hydrogenated)
- 217.02Benzene ring bonded directly to ring carbon of the seven-membered hetero ring
- 217.03 ...Additional hetero ring attached directly or indirectly to the seven-membered hetero ring by nonionic bonding
- 217.04The additional hetero ring is six-membered and contains nitrogen
- 217.05Plural ring hetero atoms in the additional hetero ring
- 217.06The additional hetero ring is a 1,3 diazine (including hydrogenated)
- 217.07Polycyclo ring system having the additional six-membered hetero ring as one of the cyclos
- 217.08The additional hetero ring is five-membered and contains nitrogen
- 217.09Plural ring hetero atoms in the additional hetero ring

- 217.1Chalcogen is one of the ring hetero atoms
- 217.11 ...Nitrogen or C(=X), wherein X is chalcogen, bonded directly to the seven-membered hetero ring
- 217.12 ...Nitrogen or C(=X), wherein X is chalcogen, attached indirectly to the seven-membered hetero ring by acyclic nonionic bonding
- 218 ..Hetero ring is seven-membered consisting of two nitrogens and five carbon atoms
- 219 ...Polycyclo ring system having the seven-membered hetero ring as one of the cyclos
- 220Tricyclo ring system having the seven-membered hetero ring as one of the cyclos
- 221Bicyclo ring system having the seven-membered hetero ring as one of the cyclos
- 222.2 ..Hetero ring is six-membered and includes at least nitrogen and sulfur as ring members
- 222.5 ...Three or more ring hetero atoms in the six-membered hetero ring
- 222.8Polycyclo ring system having the six-membered hetero ring as one of the cyclos
- 223.21,2,4 - Benzothiadiazine - 1,1 - dioxides (including hydrogenated)
- 223.5With additional active ingredient
- 223.81,3,5-Thiadiazines
- 224.2 ...Polycyclo ring system having the six-membered hetero ring as one of the cyclos (e.g., 1,3- and 1,4- benzothiazines, etc.)
- 224.5At least three cyclos in the polycyclo ring system
- 224.8Phenothiazines (including hydrogenated)
- 225.2Hetero ring attached directly or indirectly to the phenothiazine ring nitrogen by acyclic nonionic bonding
- 225.5The hetero ring is monocyclic piperidine
- 225.8The hetero ring contains plural ring nitrogens
- 226.2Chalcogen or nitrogen attached indirectly to the phenothiazine ring nitrogen by acyclic nonionic bonding
- 226.5 ...One of the cyclos is a 1,2-thiazine (e.g., 1,2-benzothiazines, etc.)
- 226.8 ...1,3-Thiazines
- 227.2 ...Chalcogen or nitrogen bonded directly to ring carbon of the six-membered hetero ring
- 227.5 ...1,4-Thiazines
- 227.8 ...Additional hetero ring attached directly or indirectly to the 1,4-thiazine by nonionic bonding
- 228.2Polycyclo ring system having the additional hetero ring as one of the cyclos
- 228.5Three or more ring hetero atoms in the polycyclo ring system
- 228.8 ..Hetero ring is six-membered and includes at least nitrogen and oxygen as ring hetero atoms (e.g., monocyclic 1,2- and 1,3-oxazines, etc.)
- 229.2 ...Three or more ring hetero atoms in the six-membered hetero ring
- 229.5 ...Polycyclo ring system having the six-membered hetero ring as one of the cyclos (e.g., maytansinoids, etc.)
- 229.8 ...Tricyclo ring system having the six-membered hetero ring as one of the cyclos
- 230.2Ring nitrogen shared by two of the cyclos
- 230.5 ...Bicyclo ring system having the six-membered hetero ring as one of the cyclos (e.g., 1,4-benzoxazines, etc.)
- 230.8 ...Chalcogen bonded directly to ring carbon of 1,4-oxazine ring
- 231.2 ...Morpholines (i.e., fully hydrogenated 1,4- oxazines)
- 231.5 ...Additional hetero ring attached directly or indirectly to the morpholine ring by nonionic bonding
- 231.8Plural morpholine rings attached directly or indirectly to each other by nonionic bonding

- 232.2Additional hetero ring attached directly or indirectly to the morpholines by nonionic bonding
- 232.5Polycyclo ring system having the additional hetero ring as one of the cyclos
- 232.8Polycyclo ring system having the additional hetero ring as one of the cyclos
- 233.2Ring nitrogen shared by two of the cyclos
- 233.5Bicyclo ring system having the additional hetero ring as one of the cyclos
- 233.8Plural ring hetero atoms in the bicyclo ring system
- 234.2Three or more ring hetero atoms in the bicyclo ring system
- 234.5Plural ring nitrogens in the bicyclo ring system
- 234.8Quinoxalines (including hydrogenated)
- 235.2Ring nitrogen in the bicyclo ring system
- 235.5Ring nitrogen in the additional hetero ring
- 235.8Plural ring nitrogens in the additional hetero ring (e.g., imidazole, pyrazine, etc.)
- 236.2Three or more ring hetero atoms in the additional hetero ring
- 236.5The ring nitrogens are bonded directly to each other (e.g., pyridazine, etc.)
- 236.8Ring chalcogen in the additional hetero ring (e.g., oxazole, etc.)
- 237.2The additional hetero ring is attached indirectly to the morpholine ring by an acyclic chain having a hetero atom as a chain member
- 237.5Having $-C(=X)-$, wherein X is chalcogen, bonded directly to the morpholine ring
- 237.8Nitrogen attached indirectly to the morpholine ring by acyclic nonionic bonding
- 238.2Chalcogen attached directly to the nitrogen by nonionic bonding
- 238.5The nitrogen is double or triple bonded directly to carbon
- 238.8Chalcogen attached indirectly to the morpholine ring by acyclic nonionic bonding
- 239.2The chalcogen is bonded directly to two carbon atoms
- 239.5Carbocyclic ring attached indirectly to the morpholine ring by nonionic bonding
- 241 ..Hetero ring is six-membered consisting of three nitrogens and three carbon atoms
- 242 ...Asymmetrical (e.g., 1,2,4-triazine, etc.)
- 243Polycyclo ring system having the hetero ring as one of the cyclos
- 244 ...Hexamethylenetetramines
- 245 ...Nitrogen bonded directly to ring carbon of the hetero ring
- 246Polycyclo ring system having a 1,3,5-triazine as one of the cyclos
- 247 ..Hetero ring is six-membered consisting of two nitrogens and four carbon atoms (e.g., pyridazines, etc.)
- 248Polycyclo ring system having a 1,2- or 1,4-diazine as one of the cyclos
- 2491,4-diazine as one of the cyclos
- 250At least three rings in the polycyclo ring system
- 251Isoalloxazine (e.g., riboflavins, Vitamin B2, etc.)
- 252.01 ...1,2 diazine attached directly or indirectly to an additional hetero ring by nonionic bonding
- 252.02The additional hetero ring is a diazine
- 252.03The additional hetero ring is six-membered consisting of one nitrogen and five carbon atoms
- 252.04Polycyclo ring system having the additional six-membered hetero ring as one of the cyclos
- 252.05The additional hetero ring is a five-membered nitrogen hetero ring

- 252.06Polycyclo ring system having the additional five-membered hetero ring as one of the cyclos
- 252.1 ...1,4 diazines
- 252.11Plural 1,4-diazine rings attached directly or indirectly to each other by nonionic bonding
- 252.12Piperazines (i.e., fully hydrogenated 1,4-diazines)
- 252.13Additional hetero ring attached directly or indirectly to the piperazine ring by nonionic bonding
- 252.14The additional hetero ring is a 1,3 diazine ring
- 252.15Spiro ring system containing
- 252.16Polycyclo ring system having the additional 1,3-diazine ring as one of the cyclos
- 252.17The polycyclo ring system is quinazoline (including hydrogenated)
- 252.18Additional six-membered hetero ring consisting of five ring carbons and one ring nitrogen attached directly or indirectly to the 1,3-diazine by nonionic bonding
- 252.19Five-membered nitrogen hetero ring attached directly or indirectly to the 1,3-diazine ring by nonionic bonding
- 252.2Oxygen hetero ring attached directly or indirectly to the 1,3-diazine ring by nonionic bonding
- 253.01The additional hetero ring is six-membered consisting of one nitrogen and five carbon atoms
- 253.02Polycyclo ring system having the additional six-membered nitrogen hetero ring as one of the cyclos
- 253.03Tricyclo ring system having the additional six-membered nitrogen hetero ring as one of the cyclos
- 253.04Bicyclo ring having the additional six-membered nitrogen hetero ring as one of the cyclos
- 253.05Isoquinolines (including hydrogenated)
- 253.06Quinolines (including hydrogenated)
- 253.07Chalcogen bonded directly to carbon of the hetero ring of the quinoline ring system
- 253.08Having -C(=X)-, wherein X is chalcogen, bonded directly to carbon of the hetero ring of the quinoline ring system
- 253.09Five-membered nitrogen hetero ring attached directly or indirectly to the piperazine ring by nonionic bonding
- 253.1The five-membered nitrogen hetero ring has chalcogen as a ring member
- 253.11Chalcogen hetero ring attached directly or indirectly to the piperazine ring by nonionic bonding
- 253.12Chalcogen bonded directly to ring carbon of the additional six-membered nitrogen containing hetero ring
- 253.13Having -C(=X)-, wherein X is chalcogen, bonded directly to the additional six-membered nitrogen hetero ring
- 254.01The additional hetero ring is five-membered having ring nitrogen
- 254.02The additional five-membered hetero ring also has chalcogen as a ring member
- 254.03The additional five-membered hetero ring consists of two ring carbons, two ring nitrogens, and one ring chalcogen (e.g., oxadiazolyl, thiadiazolyl, etc.)

- 254.04The additional five-membered hetero ring consists of three ring carbons, and of nitrogen and chalcogen in adjacent ring positions (e.g., isoxazolyl, isothiazolyl, etc.)
- 254.05Plural nitrogens in the additional five-membered hetero ring
- 254.06Polycyclo ring system having the plural nitrogen containing additional five-membered hetero ring as one of the cyclos
- 254.07Chalcogen hetero ring attached directly or indirectly to the piperazine ring by nonionic bonding
- 254.08Polycyclo ring system having the additional five-membered nitrogen hetero ring as one of the cyclos
- 254.09Indole ring system (including hydrogenated) attached directly or indirectly to the piperazine ring by nonionic bonding
- 254.1Ring oxygen in the additional hetero ring
- 254.11Polycyclo ring system having the additional oxygen hetero ring as one of the cyclos
- 255.01Nitrogen or $-C(=X)-$, wherein X is chalcogen, bonded directly to the piperazine ring
- 255.02Chalcogen bonded directly to a piperazine ring carbon
- 255.03Carbocyclic ring bonded directly to the piperazine ring
- 255.04Plural carbocyclic rings bonded directly to the same acyclic carbon atom which is attached directly or indirectly to the piperazine ring by nonionic bonding
- 255.05Additional hetero ring attached directly or indirectly to the 1,4-diazine ring by nonionic bonding
- 255.06Nitrogen or $-C(=X)-$, wherein X is chalcogen, bonded directly to ring carbon of the 1,4-diazine ring
- 2561,3-diazines (e.g., pyrimidines, etc.)
- 257Polycyclo ring system having 1,3-diazine as one of the cyclos
- 258.1Bicyclo ring system having the 1,3-diazine as one of the cyclos
- 259.1A ring nitrogen is shared by the two cyclos of the bicyclo ring system (e.g., pyrrolo [1,2-a]pyrimidine, imidazo[1,2-a]pyrimidine, etc.)
- 259.2Ring chalcogen in the bicyclo ring system
- 259.3The shared ring nitrogen is bonded directly to a ring nitrogen of the second ring of the bicyclo ring system (e.g., pyrazolo[1,5-a]pyrimidine, etc.)
- 259.31The second ring of the bicyclo ring system is a five-membered hetero ring including three ring nitrogens (e.g., triazolo[1,5-a]pyrimidine, etc.)
- 259.4The second ring of the bicyclo ring system is six-membered, consisting of five ring carbons and the shared ring nitrogen (e.g., pyrido[1,2-a]pyrimidine, etc.)
- 259.41Additional hetero ring is attached directly or indirectly to the bicyclo ring system by nonionic bonding
- 259.5Chalcogen bonded directly to a ring carbon of the 1,3-diazine ring
- 260.1Ring chalcogen in the bicyclo ring system
- 261.1Exactly five ring nitrogens in the bicyclo ring system (e.g., triazolo[4,5-d]pyrimidine, etc.)
- 262.1Exactly four ring nitrogens in the bicyclo ring system
- 263.1Purine (including hydrogenated)

- 263.2Additional hetero ring attached directly or indirectly to the purine ring system by nonionic bonding
- 263.21The additional hetero ring is a 1,3-diazine ring (including hydrogenated)
- 263.22The additional hetero ring is six-membered consisting of one nitrogen and five carbons
- 263.23The additional hetero ring consists of carbon and chalcogen as the only ring members
- 263.24The additional chalcogen containing hetero ring is part of a polycyclo ring system
- 263.3Chalcogen bonded directly to a ring carbon of the purine ring system
- 263.31With preservative, stabilizer, or an additional active ingredient
- 263.32Nitrogen containing hetero ring in the preservative, stabilizer, or additional active ingredient
- 263.33Chalcogen bonded directly to the 2-, 6-, and 8-positions of the purine ring system
- 263.34Chalcogen bonded directly to the 2- and 6-positions of the purine ring system (e.g., theophylline, etc.)
- 263.35Nitrogen attached indirectly to the purine ring system by acyclic nonionic bonding
- 263.36Chalcogen attached indirectly to the purine ring system by acyclic nonionic bonding
- 263.37Nitrogen bonded directly to a ring carbon of the purine ring system (e.g., guanine, etc.)
- 263.38Chalcogen attached indirectly to the 9- position of the purine ring system by acyclic nonionic bonding
- 263.4Nitrogen bonded directly to ring carbon of the purine ring system (e.g., adenine, etc.)
- 264.1The other cyclo in the bicyclo ring system is a pyridine ring (including hydrogenated) (e.g., pyrido[2,3-d]pyrimidine, etc.)
- 264.11Nitrogen bonded directly to ring carbon of the 1,3-diazine ring of the bicyclo ring system
- 265.1The other cyclo in the bicyclo ring system is a pyrrole ring (including hydrogenated) (e.g., pyrrolo[3,2-d]pyrimidine, etc.)
- 266.1Quinazoline (including hydrogenated) (i.e., the second cyclo in the bicyclo ring system is an ortho-fused six-membered carbocycle)
- 266.2Additional hetero ring attached directly or indirectly to the quinazoline ring system by nonionic bonding
- 266.21The additional hetero ring is six-membered consisting of one nitrogen and five carbons
- 266.22Piperidinyl or tetrahydropyridyl
- 266.23The additional hetero ring is five-membered consisting of carbon and plural nitrogens as the only ring members
- 266.24The additional hetero ring consists of carbon and chalcogen as the only ring members
- 266.3Chalcogen bonded directly to a ring carbon of the 1,3-diazine ring of the quinazoline ring system
- 266.31Carbocyclic ring bonded directly to a ring carbon of the quinazoline ring system
- 266.4Nitrogen bonded directly to ring carbon of the 1,3-diazine ring of the quinazoline ring system

267	.....Tricyclo ring system having 1,3-diazine as one of the cyclos	286	.....Two of the cyclos share at least three ring members (i.e., bridged)
268	.....Perimidine (including hydrogenated)	287	.....Three or more hetero atoms in the tetracyclo ring system
269	....Pyrimidines with chalcogen bonded directly to a ring carbon of said pyrimidine moiety	288	.....Ring carbon is shared by three of the cyclos
270	.....Barbituric acid or derivative (including thioanalogs)	289	....Two of the cyclos share at least three ring members (i.e., bridged) (e.g., morphinans, etc.)
271	.....Two or more barbituric acid compounds or with an additional active ingredient or stabilizer	290	....Tricyclo ring system having the six-membered hetero ring as one of the cyclos
272	....Nitrogen bonded directly to the 1,3-diazine at 2-position	291	....Plural hetero atoms in the tricyclo ring system
273	.....The nitrogen is part of a hetero ring	292	.....Plural ring nitrogens in the tricyclo ring system
274	....Chalcogen bonded directly to pyrimidine at 2-position	293	.....Three or more hetero atoms in the tricyclo ring system
275	....Nitrogen bonded directly to the 1,3-diazine at 2-position by a single bond	294	....Ring nitrogen is shared by two of the cyclos
276	....Thiamines (e.g., vitamin B1, etc.)	295	....Two of the cyclos share at least three ring carbons (i.e., bridged) (e.g., benzomorphans, etc.)
277	..Hetero ring is six-membered consisting of one nitrogen and five carbon atoms	296	....Ring carbons shared by each of the three cyclos (e.g., 1,8-naphthalimides, etc.)
278	...Spiro ring system	297	....Acridines (including hydrogenated)
279	...Polycyclo ring system having the six-membered hetero ring as one of the cyclos	298	....Phenanthridines (including hydrogenated)
280	....Pentacyclo ring system having the six-membered hetero ring as one of the cyclos	299	....Bicyclo ring system having the six-membered hetero ring as one of the cyclos
281	.....Two of the cyclos share at least three ring members (i.e., bridged)	300	....Plural hetero atoms in the bicyclo ring system
282	.....One of the five cyclos is five-membered and includes ring chalcogen (e.g., codeine, morphine, etc.)	301	.....Ring sulfur in the bicyclo ring system
283	....Ring nitrogen in the pentacyclo ring system is shared by five-membered cyclo and six-membered cyclo (e.g., vincamine, etc.)	302	.....Ring oxygen in the bicyclo ring system
284	....Tetracyclo ring system having the six-membered hetero ring as one of the cyclos	303	.....Exactly three ring nitrogens in the bicyclo ring system
285	....Plural hetero atoms in the tetracyclo ring system (e.g., acronycines, etc.)	304	....Tropanes (including nor or dehydro form)
		305	....Quinuclidines (including unsaturation)
		306	....Quinolizines (including hydrogenated)
		307	....Isoquinolines (including hydrogenated)

- 308Plural isoquinoline ring systems attached directly or indirectly to each other by nonionic bonding
- 309Chalcogen attached directly to the six-membered hetero ring by nonionic bonding
- 310Nitrogen, other than as nitro or nitroso, attached directly to the isoquinoline ring system by nonionic bonding
- 311Quinolines (including hydrogenated)
- 312Chalcogen attached directly to the six-membered hetero ring by nonionic bonding
- 313Nitrogen, other than as nitro or nitroso, attached directly to the six membered hetero ring by nonionic bonding
- 314Additional hetero ring attached directly or indirectly to the quinoline ring system by nonionic bonding
- 315 ...Piperidines
- 316 ...Plural piperidine rings
- 317 ...Additional ring containing
- 318The additional ring is a six-membered hetero ring consisting of one nitrogen and five carbon atoms
- 319The additional ring is one of the cyclos in a polycyclo ring system
- 320Hetero ring in the polycyclo ring system
- 321Plural hetero atoms in the polycyclo ring system
- 322Plural ring nitrogens in the polycyclo ring system
- 323Ring nitrogen in the polycyclo ring system
- 324Ring sulfur in the polycyclo ring system
- 325Polycyclo ring system is tricyclo-carbocyclic
- 326The additional ring is a hetero ring
- 327Chalcogen bonded directly to ring carbon of the piperidine ring
- 328Plural chalcogens bonded directly to ring carbons of the piperidine ring
- 329Nitrogen attached directly to the piperidine ring by nonionic bonding
- 330C=X bonded directly to the piperidine ring (X is chalcogen)
- 331Nitrogen attached indirectly to the piperidine ring by nonionic bonding
- 332 ...Plural six-membered hetero rings consisting of one nitrogen and five carbon atoms
- 333 ...Additional hetero ring other than the six-membered hetero rings
- 334 ...The six-membered hetero rings are bonded directly to each other
- 335 ...Chalcogen bonded directly to a ring carbon of the six-membered hetero ring
- 336 ...Additional hetero ring containing
- 337 ...The additional hetero ring is one of the cyclos in a polycyclo ring system
- 338Plural hetero atoms in the polycyclo ring system
- 339Ring nitrogen in the polycyclo ring system
- 340 ...Ring nitrogen in the additional hetero ring (e.g., oxazole, etc.)
- 341The additional hetero ring consists of two nitrogens and three carbons
- 342Ring sulfur in the additional hetero ring
- 343The additional hetero ring consists of one nitrogen and four carbons (e.g., nicotine, etc.)
- 344 ...Cyano bonded directly to the six-membered hetero ring
- 345 ...Chalcogen bonded directly to ring carbon of the six-membered hetero ring
- 346 ...Chalcogen and acyclic nitrogen bonded directly to the same carbon
- 347 ...Chalcogen bonded directly to chalcogen

- 348 ...Chalcogens bonded directly to at least two ring carbons of the six-membered hetero ring
- 349 ...Nitrogen attached directly to the six-membered hetero ring by nonionic bonding
- 350 ...C=O bonded directly to the six-membered hetero ring
- 351 ...Nitrogen attached indirectly to the six-membered hetero ring by nonionic bonding
- 352 ...Nitrogen attached directly to the six-membered hetero ring by nonionic bonding
- 353 ...Plural acyclic nitrogens bonded directly to the same carbon or bonded directly to each other
- 354 ...C=O bonded directly to the six-membered hetero ring
- 355At 3-position
- 356C=O in a C(=O)O group (e.g., nicotinic acid, etc.)
- 357 ...Nitrogen attached indirectly to the six-membered hetero ring by nonionic bonding
- 358 ...The ring nitrogen of the six-membered hetero ring is pentavalent (e.g., quaternary pyridinium salt, etc.)
- 359 ..Five-membered hetero ring containing at least one nitrogen ring atom (e.g., 1,2,3-triazoles, etc.)
- 360 ...Plural ring chalcogens in the hetero ring
- 361 ...Plural ring nitrogens and a single chalcogen in the hetero ring
- 3621,2,5-thiadiazoles (including hydrogenated)
- 3631,3,4-thiadiazoles (including hydrogenated)
- 364Oxadiazoles (including hydrogenated)
- 365 ...1,3-thiazoles (including hydrogenated)
- 366 ...Polycyclo ring system having the thiazole ring as one of the cyclos
- 367Bicyclo ring system having the thiazole ring as one of the cyclos
- 368Ring nitrogen is shared by the cyclos of the bicyclo ring system (e.g., tetramisole, etc.)
- 369 ...Chalcogen bonded directly to ring carbon of the thiazole ring
- 370 ...Nitrogen bonded directly to ring carbon of the thiazole ring
- 371C=X bonded directly to the nitrogen which is bonded directly to the thiazole ring (X is chalcogen)
- 372 ...1,2-thiazoles (including hydrogenated)
- 373 ...Polycyclo ring system having the thiazole ring as one of the cyclos
- 374 ...1,3-oxazoles (including hydrogenated)
- 375 ...Polycyclo ring system having the oxazole ring as one of the cyclos
- 376 ...Chalcogen bonded directly to ring carbon of the oxazole ring
- 377 ...Nitrogen bonded directly to ring carbon of the oxazole ring
- 378 ...1,2-oxazoles (including hydrogenated)
- 379 ...Polycyclo ring system having the oxazole ring as one of the cyclos
- 380 ...Chalcogen or nitrogen bonded directly to ring carbon of the oxazole ring
- 381 ...Tetrazoles (including hydrogenated)
- 382 ...Additional chalcogen containing hetero ring
- 383 ...1,2,4-triazoles (including hydrogenated)
- 384 ...Chalcogen bonded directly to the triazole ring
- 385 ...1,3-diazoles
- 386 ...Divalent chalcogen or acyclic nitrogen double bonded directly to ring carbon of the diazole ring, or tautomeric equivalent
- 387Polycyclo ring system having the diazole ring as one of the cyclos

388	.....Nitrogen double bonded directly at 2-position of the diazole ring, or tautomeric equivalent	409	....Spiro ring system
389	.....Divalent chalcogen or acyclic nitrogen double bonded directly at both 2- and 4-positions, or tautomeric equivalent (e.g., hydantoin, etc.)	410	....Polycyclo ring system having the five-membered hetero ring as one of the cyclos
390	.....Chalcogen or nitrogen bonded directly at 1-, 3-, or 5-position by nonionic bonding	411	.....Tricyclo ring system having the five-membered hetero ring as one of the cyclos
391	.....Benzene ring bonded directly to the diazole ring by nonionic bonding	412	....Bicyclo ring system having the five-membered hetero ring as one of the cyclos
392	.....Divalent chalcogen or acyclic nitrogen double bonded at 2-position, or tautomeric equivalent	413	.....Ring nitrogen is shared by the cyclos of the bicyclo ring system
393	....Polycyclo ring system having the diazole ring as one of the cyclos	414	.....Additional hetero ring which is not part of the bicyclo ring system
394	.....Benzo fused at 4,5-positions of the diazole ring	415	.....The bicyclo ring system consists of the five-membered hetero ring and a benzene ring (e.g., indole, etc.)
395	.....Chalcogen or nitrogen bonded directly at 1-, 2- or 3-position of the diazole ring by nonionic bonding	416	.....The ring nitrogen is bonded directly to nonshared ring carbons of the five-membered hetero ring (e.g., isoindole, etc.)
396	....Imidazoles	417	.....Plural chalcogens bonded directly to ring carbons of the five-membered hetero ring (e.g., phthalimide, etc.)
397	....Additional hetero ring	418	.....Chalcogen bonded directly to ring carbon of the five-membered hetero ring
398	....Chalcogen or nitrogen bonded directly to the imidazole ring by nonionic bonding	419	.....C=X bonded directly or indirectly by an acyclic carbon or carbon chain to ring carbon of the five-membered hetero ring (e.g., tryptophan, etc.) (X is chalcogen)
399	....Chalcogen or nitrogen bonded indirectly to the imidazole ring by nonionic bonding	420	.....Indomethacine per se or ester thereof
400	.....At imidazole ring carbon	421	....Chalcogen bonded directly to ring carbon of the five-membered hetero ring (e.g., adrenochrome, etc.)
401	....2-imidazolines	422	....Additional hetero ring
402	....Additional hetero ring	423	....C=X bonded directly to the five-membered hetero ring by nonionic bonding (X is chalcogen)
403	...1,2-diazoles	424	....Chalcogen bonded directly to the five-membered hetero ring by nonionic bonding
404	....Divalent chalcogen or acyclic nitrogen double bonded directly to ring carbon of the diazole ring, or tautomeric equivalent	425	.....Plural chalcogens bonded directly to the five-membered hetero ring by nonionic bonding
405	....Polycyclo ring system having the diazole ring as one of the cyclos		
406	....Pyrazoles		
407	.....Chalcogen or nitrogen bonded directly to the pyrazole ring by nonionic bonding		
408	...The five-membered hetero ring consists of one nitrogen and four carbons		

426	....Nitrogen bonded directly to the five-membered hetero ring by nonionic bonding	448	....C=O bonded directly to the hetero ring (X is chalcogen)
427	....Two double bonds between ring members of the five-membered hetero ring (e.g., pyrrole, etc.)	449	..Oxygen containing hetero ring
428	....Chalcogen bonded indirectly to the five-membered hetero ring by acyclic nonionic bonding	450	...The hetero ring has at least seven members
429	....Carbocyclic ring bonded directly to the five-membered hetero ring	451	...The hetero ring is six-membered
430	..Sulfur containing hetero ring	452	....Plural ring oxygens in the hetero ring
431	...The hetero ring has at least seven members	453	....Polycyclo ring system having the hetero ring as one of the cyclos
432	...The hetero ring is six-membered	454	....Tricyclo ring system having the hetero ring as one of the cyclos
433	....Plural hetero atoms in the hetero ring	455	.....Chalcogen bonded directly to ring carbon of the hetero ring
434	....Polycyclo ring system having the hetero ring as one of the cyclos	456	....Bicyclo ring system having the hetero ring as one of the cyclos (e.g., chromones, etc.)
435	.....Three or more hetero atoms in the hetero ring	457	.....Coumarins (including hydrogenated)
436	.....Two ring sulfurs in the hetero ring	458	.....Tocopherols (e.g., vitamin E, etc.)
437	...Tricyclo ring system having the hetero ring as one of the cyclos	459	....Nitrogen containing
438	...The hetero ring is five-membered	460	....Chalcogen bonded directly to ring carbon of the hetero ring
439	....Plural hetero atoms in the hetero ring	461	...The hetero ring is five-membered
440	.....Only two ring sulfurs in the hetero ring	462	....Spiro ring system
441	.....Chalcogen bonded directly to ring carbon of the hetero ring	463	....Plural ring oxygens in the hetero ring
442	.....Nitrogen bonded directly to the hetero ring by nonionic bonding	464	....Bicyclo ring system having the hetero ring as one of the cyclos (e.g., methylenedioxyphenyl group, etc.)
443	....Polycyclo ring system having the hetero ring as one of the cyclos	465	.....The hetero ring is substituted
444	....Additional hetero ring	466	.....Nitrogen containing
445	....Chalcogen bonded directly to ring carbon of the hetero ring	467	....Only two ring oxygens in the hetero ring which is not a polycyclo ring system (e.g., dioxolane, etc.)
446	....Chalcogen bonded directly to ring sulfur by nonionic bonding	468	....Polycyclo ring system having the hetero ring as one of the cyclos
447	....Nitrogen bonded directly to the hetero ring	469	....Bicyclo ring system having the hetero ring as one of the cyclos
		470	.....Chalcogen or nitrogen bonded directly to the hetero ring
		471	....Nitrogen containing

472	.....The nitrogen bonded directly to the hetero ring	508	..X-C=N containing (e.g., imidoester, etc.) (X is chalcogen)
473	....Chalcogen bonded directly to the hetero ring	509	..(O=N(=O)-O-C containing (e.g., nitrate ester, etc.)
474	.....Ascorbic acid or derivative (e.g., vitamin C, etc.)	510	..Polycyclo ring system
475	...The hetero ring is three-membered	511	...Two of the cyclos share at least three ring members (i.e., bridged)
476	..N-C(=X)X containing (X is chalcogen) DOAI	512	..X-C(=X)-X containing (e.g., carbonic acid ester, thiocarbonic acid ester, etc.) (X is chalcogen)
477	..N-C(=X)-X-N containing	513	..C-C(=X)-X-C containing (X is chalcogen and at least one X is other than oxygen)
478	..N-C(=X)-X-C containing	514	..Carbon bonded to -NCX or -XCN (e.g., cyanate, thiocyanate or isothiocyanate, etc.) (X is chalcogen)
479	...With an additional active ingredient	515	...With an additional active ingredient
480	...Polycyclo ring system attached by nonionic bonding	516	...Containing plural -NCX or -XCN groups or a cyano
481	....Naphthyl ring system	517	..S-X-C containing (e.g., sulfates, etc.) (X is chalcogen)
482	...N-C(=X)-N, N-C(=N)N, N-N, nitrogen directly bonded to oxygen by nonionic bonding or cyano containing	518	...S of S-X-C attached directly to a benzene ring
483	...Plural N-C(=X)-X groups	519	..Cyano or isocyano bonded directly to carbon
484	...Ring in acid moiety	520	...Benzene ring containing
485	....The ring is a benzene ring	521	....C=O other than as ketone or aldehyde
486	.....Phenoxy in acid moiety	522	.....The cyano is bonded directly to a benzene ring
487	.....The benzene ring is attached to nitrogen through an acyclic carbon or carbon chain	523	....Additional nitrogen other than cyano
488	....Ring in alcohol moiety	524	....The cyano is bonded directly to a benzene ring
489	...Ring in alcohol moiety	525	....Two or more of the cyano groups
490	...Ring attached directly to oxygen of N-C(=O)-O	526	...Acyclic
491	..With an additional active ingredient	527	....C=O other than as ketone or aldehyde
492	..Heavy metal containing DOAI	528	.....C(=O)N containing
493	..Tin	529	..Z-C(=O)-O-Y wherein Z is hydrogen or an organic radical bonded to the C(=O) by a carbon and Y is an organic radical bonded to the oxygen by a carbon
494	..Zinc		
495	..Gold or silver	530	...Z contains a cyclopentyl or cyclopentene ring
496	..Mercury		
497	...Nitrogen containing		
498	..Lead		
499	..Copper		
500	...With an additional active ingredient		
501	..Nickel or cobalt		
502	..Iron		
503	..Antimony or bismuth		
504	..Arsenic		
505	..Cadmium or chromium		
506	..Ester DOAI		
507	..R-C(=X)-N-X-C containing (e.g., hydroxamic acid ester, etc.) (R is C or H and X is chalcogen)		

531	...Z contains a cyclopropyl or cyclopropene ring	553	.Radical -XH acid, or anhydride, acid halide or salt thereof (X is chalcogen) DOAI
532	...Z-C(=O)-O-Y, wherein Z contains a benzene ring	554	..Amine addition salt of the acid
533	....Compound contains two or more C(=O)O groups indirectly bonded together by only conalent bonds	555	...Benzene ring in acid moiety
534	....Z or Y radical contains a nitrogen atom	556	..Inner quaternary ammonium salt (e.g., betaine, etc.)
535	.....The nitrogen of the Z radical is directly bonded to a benzene ring which is directly bonded to the C(=O) group	557	..Carboxylic acid, percarboxylic acid, or salt thereof (e.g., peracetic acid, etc.)
536	.....With an agent to enhance topical absorption or with a stabilizing agent	558	...Higher fatty acid or salt thereof
537	.....With an additional active ingredient	559	....Ring containing
538	.....Nitrogen bonded to carbon in Z moiety	560	....Carbon to carbon unsaturation
539	.....Plural separated benzene rings in Z moiety	561	...Nitrogen other than as nitro or nitroso nonionically bonded
540	.....Nitrogen in Y moiety	562	....Sulfur nonionically bonded
541	.....Aldehyde or ketone in Z or Y radical	563	....RC(=O)N containing (i.e., carboxamide) (R is C or H)
542	.....Z radical contains two or more nitrogen atoms at least one of which forms a C(=X)N group (X is chalcogen)	564	....Plural nitrogens nonionically bonded
543	...Z forms a phenoxy alkyl or phenoxy alkenyl radical	565	....N-N or N=C(-N)-N containing (e.g., hydrazines, hydrazones, or guanidines, etc.)
544	...C(=O)O attached directly through the carbon to a benzene ring	566	....Polycarboxylic acid
545	...Ketone in Z radical	567	...Benzene ring nonionically bonded
546	...ZC(=O)OY, wherein Z is an acyclic radical bonded to the C=O by a carbon and Y is an organic radical bonded to the oxygen by a carbon	568	...Benzene ring nonionically bonded
547	....Compound contains two or more C(=O)O groups	569	....Polycyclo ring system
548	....Ring is alcohol moiety	570	...Carboxy or salt thereof only attached indirectly to the benzene ring
549	...Z radical contains carbon to carbon unsaturation	571	....Ether oxygen single bonded to carboxylic acid, percarboxylic acid or salt thereof through an acyclic carbon or acyclic carbon chain
550	...Z radical contains sulfur or halogen	572	...Cyclic carboxylic acid containing three to five carbons or cyclic percarboxylic acid containing three to five carbons or salt thereof
551	...Z radical contains nitrogen	573	....Cyclopentyl or cyclopentene (e.g., prostaglandins, etc.)
552	...Z contains an unbroken chain of at least seven carbon atoms bonded directly to the C(=O) group	574	...Polycarboxylic acid or salt thereof
		575	..Hydroxamic acid or salt thereof
		576	..Benzene ring containing
		577	...Polycyclo ring system
		578	..Acyclic acid or salt thereof

579	..Nitrogen containing other than solely as a nitrogen in an inorganic ion of an addition salt, a nitro or a nitroso DOAI	601	..Sulfonamides (i.e., Q-(O=)S(=O)-N, wherein Q is a substituent and wherein any substituent attached to the nitrogen will be referred to as E)
580	..Thioureas (i.e., N-C(=S)-N	602	...Q contains benzene ring
581	...Thiocarbazides or thiosemicarbazides (i.e., N-N-C(=S)-N containing)	603	...Nitrogen in Q
582	....Thiocarbazonos or thiosemicarbazones (i.e., C=N-N-C(=S)-N containing)	604	...Q is monocyclic
583	....Benzene ring containing	605	...Q is acyclic and benzene ring in a substituent E
584	...C=O, sulfur or cyano attached directly to thiourea nitrogen by nonionic bonding	606	..N-S-S containing
585	...Benzene ring containing	607	..N-S-N containing or contains a nitrogen bonded directly to a S=O group (e.g., sulfinamides, etc.)
586	...Nitrogen attached indirectly to the -C(=S)-group by nonionic bonding	608	..Sulfur attached directly to amino nitrogen by nonionic bonding (e.g., sulfenamides, etc.)
587	....Oxygen containing	609	..Cyanamides (i.e., compounds containing cyano bonded directly to amino nitrogen)
588	..Ureas (i.e., N-C(=O)-N)	610	..Nitramines (i.e., compounds containing nitro bonded directly to amino nitrogen)
589	...Nitro or nitroso bonded directly to amino nitrogen (e.g., nitramine, nitrosamine, nitro-urea, etc.)	611	..Nitrosamines (i.e., compounds containing nitroso bonded directly to amino nitrogen)
590	...Carbazides or semicarbazides (i.e., N-N-C(=O)-N containing)	612	..Haloamines (i.e., compounds containing halogen attached directly to amino nitrogen by nonionic bonding)
591	...Biurets (i.e., N-C(=O)-N-C(=O)-N)	613	..Carboxamides (i.e., R-C(=O)-N, wherein R is a radical having carbon bonded directly to the C(=O)-N or is hydrogen and wherein any substituent attached to nitrogen will be referred to as E)
592	...Sulfur attached directly to urea nitrogen by nonionic bonding	614	...N-N containing (e.g., aminimine, hydrazine, etc.)
593	....Sulfur is part of a substituent which contains additional nitrogen	615	....R contains benzene ring
594	...Additional C=O bonded directly to urea nitrogen	616	...Plural carboxamide groups or plural C=O groups bonded directly to the same nitrogen
595	...Benzene ring containing	617	...R contains benzene ring
596	....Benzene ring bonded directly to urea nitrogen	618	....Sulfur in R
597	.....Benzene ring is part of a substituent which contains nitrogen	619	....Nitrogen in R
598	.....Benzene ring is part of a substituent which contains oxygen	620	....The nitrogen in R is an amino nitrogen attached indirectly to a ring by acyclic bonding
599	..Thiocarboxamides, (i.e., C(=S)-N)	621	....C=O in R
600	..Sulfamides (i.e., N-(O=)S(=O)-N)	622	....C-O- group in R

623	...Plural alicyclic rings in R	650	....The aryl ring or aryl ring system is bonded directly to another ring or ring system
624	...Three-membered ring in R	651	....Ether oxygen is part of the chain
625	...R is acyclic	652	....Alkanol group only between the amino nitrogen and an ether oxygen which is bonded directly to the aryl ring or aryl ring system (i.e., aryloxy alkanol amines)
626	....Nitrogen in R	653	...Hydroxy, bonded directly to carbon, attached directly or indirectly to the acyclic carbon or chain by acyclic nonionic bonding (e.g., beta hydroxy phenethylamines, etc.)
627	....Carbon to carbon unsaturation in R	654	...The chain consists of two or more carbons which are unsubstituted or have acyclic hydrocarbyl substituents only
628	....Halogen bonded directly to carbon in R	655	...The aryl ring or aryl ring system and amino nitrogen are bonded directly to the same acyclic carbon, which carbon additionally has only hydrogen or acyclic hydrocarbyl substituents bonded directly thereto
629	....R is hydrogen or a lower saturated alkyl of less than seven carbons	656	...Polycyclo ring system
630	....A ring or polycyclo ring system in a substituent E is attached indirectly to the carboxamide nitrogen or to an amino nitrogen in substituent E by acyclic nonionic bonding	657	...Bicyclo ring system
631	..Amidines (i.e., N=C-N)	658	...Two benzene rings bonded directly to the same nitrogen
632	..Amidino hydrazines or hydrazones (i.e., N-N=C-N or N=C-N-N)	659	..Alicyclic ring or ring system and amino nitrogen are attached indirectly by an acyclic carbon or acyclic chain
633	..Amidoximes (i.e., N-C=N-O)	660	..Plural alicyclic rings
634	..Guanidines (i.e., N=C(-N)-N)	661	...Polycyclo ring system
635	....Biguanides (i.e., N=C(-N)-N(N-)C=N)	662	....Tricyclo ring system
636	...Polyamidines	663	..Acyclic
637	...Benzene ring containing	664	...N-N containing (e.g., aminimine, hydrazine, etc.)
638	..Nitrogen double bonded directly to carbon	665	...Sulfur containing
639	..Hydrazones (i.e., C=N-N)	666	...Aldehyde or ketone containing
640	..Oximes (i.e., C=N-O-)	667	...C-O-group containing
641	..Aldimines or ketimines which contain a benzene ring (i.e., RC=N wherein R is C or H)	668	....Polyether
642	..Quaternary ammonium containing	669	....Polyhydroxy
643	..Benzene ring containing	670	....Monoether
644	..Amine oxides	671	...Carbon to carbon unsaturation
645	..Nitroxides, oxyamines or hydroxylamines (i.e., N-O or N-OH)	672	...Halogen bonded directly to carbon
646	..Benzene ring containing	673	...Plural amino nitrogens
647	...Amino nitrogen and a ring bonded directly to the same ring and any other amino nitrogen in the compound is bonded directly to one of the rings	674	....Three or more amino nitrogens
648	...Two aryl rings or aryl ring systems bonded directly to the same acyclic carbon		
649	...Amino nitrogen attached to aryl ring or aryl ring system by an acyclic carbon or acyclic chain		

675	.Ketone DOAI	710	....Acyclic carbon to carbon unsaturation
676	..Nitrogen containing	711	....Acyclic
677	...Bicyclo ring system having a benzene ring as one of the cyclos	712	..Thioether
678	..Benzene ring containing	713	...Acyclic carbon to carbon unsaturation
679	...Plural rings	714	.Peroxide DOAI
680	....Polycyclo ring system	715	.Ether DOAI
681	.....Bicyclo	716	..Nitrogen containing
682	.....Naphthyl ring system	717	..Benzene ring containing
683	....Alicyclic ring	718	...Plural oxygens
684	....Five-membered alicyclic ring	719	....Alicyclic ring
685	....C=O bonded directly to benzene ring	720	....Acyclic carbon to carbon unsaturation
686	.....Two benzene rings bonded directly to the same C=O	721	....Plural benzene rings
687	.....Oxygen single bonded to carbon	722	..Acyclic
688	...C=O bonded directly to benzene ring (e.g., acetophenone, etc.)	723	...Plural oxygens
689	...Oxygen single bonded to carbon	724	.C-O-group (e.g., alcohol, alcoholate, etc.) DOAI
690	..Alicyclic ring containing	725	..Vitamin A compound or derivative
691	...Plural alicyclic rings	726	..Diphenyl-substituted acyclic alcohol or alcoholate
692	...Camphor or nuclear substituted derivatives thereof	727	..Nitrogen containing
693	.Aldehyde DOAI	728	...C of C-O- group is nuclear C of a benzene ring (e.g., phenol, phenolate, etc.)
694	..Formaldehyde	729	..Alicyclic ring containing
695	...With polycyclo compound	730	..Benzene ring containing
696	...With alcohol	731	...C of C-O- group is nuclear C of a benzene ring (e.g., phenol, phenolate, etc.)
697	...With nitrogen containing compound	732	....Polycyclo ring system (e.g., naphthols, etc.)
698	..With preservative or stabilizer	733	....Acyclic carbon to carbon unsaturation
699	..Benzene ring containing	734	....Two or more separate aryl-O-groups
700	...Polycyclo ring system	735	.....Nuclear halogenated
701	...Acyclic carbon to carbon unsaturation	736	....Additional benzene ring containing
702	..Sulfur containing	737	....Nuclear halogenated
703	..Carbon to carbon unsaturation	738	..Polyhydroxy
704	..Nitrogen containing	739	..Carbon to carbon unsaturated
705	..Plural C=O groups	740	.Nitrogen containing compound DOAI
706	.Sulfur, selenium or tellurium compound (e.g., thioalcohols, mercaptans, etc.)	741	..Benzene ring containing
707	..Persulfide (e.g., R-S-S-R, etc.)	742	..Polynitro
708	..Oxygen bonded directly to sulfur (e.g., sulfoxides, etc.)	743	.Halogenated hydrocarbon DOAI
709	...Plural oxygens bonded directly to the same sulfur (e.g., sulfones, etc.)	744	..Unsaturated aliphatic compound
		745	...Alkyne
		746	...Plural halogenated hydrocarbon compounds
		747	..Carbocyclic

748	...Two benzene rings directly attached to an acyclic hydrocarbon or acyclic halogenated hydrocarbon (e.g., D.D.T., etc.)	777	.Carbohydrate or lignin, or derivative
749	....Fluorine containing	778	..Starch or derivative
750	....With organic ether or -OH containing compound non-DOAI	779	..Algin or derivative
751	...Benzene ring containing	780	..Locust bean gum
752	....Alkyne	781	..Cellulose or derivative
753	....Polycyclo ring system	782	.Natural gum or resin
754	....Plural benzene rings	783	.Plant extract or plant material of undetermined constitution
755	...Polycyclo ring system	784	.Carboxylic acid or salt thereof
756	....Bicyclo	785	.Carboxylic acid ester
757	..Two or more halogenated hydrocarbons	786	..Glyceride
758	..Chlorine as only halogen	787	..Beeswax
759	..Fluorine as only halogen	788	.Nitrogen containing
760	..Bromine and chlorine as only halogens	788.1	SOLID SYNTHETIC ORGANIC POLYMER DERIVED SOLELY FROM HYDROCARBON REACTANTS AS DESIGNATED ORGANIC NONACTIVE INGREDIENT CONTAINING
761	..Bromine and fluorine as only halogens	789	MISCELLANEOUS (E.G., HYDROCARBONS, ETC.)
762	.Hydrocarbon DOAI		
763	..Carbocyclic		
764	...Benzene ring containing		
765	....Polycyclo ring system		
766	...Polycyclo ring system		
767	..With phosphorus containing non-DOAI		
768	..With sulfur containing non-DOAI		
769	DESIGNATED INORGANIC NONACTIVE INGREDIENT OR ELEMENTAL MATERIAL OTHER THAN WATER		
770	.Siliceous or calcareous material (e.g., clay, earth, etc.)		
771	.Oxygen gas containing		
772	DESIGNATED ORGANIC NONACTIVE INGREDIENT CONTAINING OTHER THAN HYDROCARBON		
772.1	.Aftertreated solid synthetic organic polymer (e.g., grafting, blocking, etc.)		
772.2	..Polyvinyl alcohol		
772.3	.Solid synthetic organic polymer		
772.4	..Polymer from ethylenic monomers only		
772.5	...Heterocyclic monomer		
772.6	..Carboxylic acid containing monomer		
772.7	..Heterocyclic monomer		
773	.Peptide containing		
774	..Gelatin or derivative		
775	..Casein (milk protein) or derivative		
776	..Albumin or derivative		
		800	LHRH LIKE
		801	COLLAGEN, GELATIN OR DERIVATIVES THEREOF
		802	FIBRINOPEPTIDES, BLOOD-COAGULATION FACTORS OR DERIVATIVES
		803	KININ OR DERIVATIVES
		804	PHECMYCIN SERIES OR DERIVATIVES
		805	ADRENOCORTICOTROPIC HORMONE OR DERIVATIVES
		806	SOMATOSTATIN OR DERIVATIVES
		807	OXYTOXIN, VASOPRESSIN OR DERIVATIVES
		808	CALCITONIN OR DERIVATIVES
		809	ENKEPHALIN OR ENDORPHIN OR DERIVATIVES
		810	ADDICTION
		811	.Alcohol
		812	.Narcotic
		813	.Tobacco
		814	ANEMIA
		815	.Sickle cell
		816	ANESTHETIC, GENERAL
		817	ANESTHETIC, TOPICAL
		818	ANESTHETIC, LOCAL
		819	ANTACID, ORAL
		820	.With antifatulent
		821	ANTIARRHYTHMIC

CROSS-REFERENCE ART COLLECTIONS

822	ANTICOAGULATION	876	.Collar type
823	ANTIDOTE	877	GALLSTONE
824	ARTERIOSCLEROSIS	878	GERIATRICS
825	ARTHRITIS	879	.Senility
826	ASTHMA	880	HAIR TREATMENT (THERAPEUTIC- SCALP)
827	ASTRINGENT, NONFACIAL	881	.Shampoo
828	.Topical for the skin	882	HEMORRHOID PREPARATION
829	BITE OR STING	883	HODGKIN'S DISEASE
830	.Insect	884	HYPOGLYCEMIA
831	.Animal (nonpoisonous)	885	IMMUNE RESPONSE AFFECTING DRUG
832	BLOOD SUBSTITUTE	886	INFLAMMATION, SKIN
833	BLOOD PLASMA EXTENDER	887	.Topical Treatment
834	COAGULANT	888	INFLUENZA
835	CARIES	889	INTERFERON INDUCER
836	CHELATE	890	IRRITANT (E.G., TEAR GAS, ETC.)
837	CHOLERA	891	KIDNEY STONE
838	CIRRHOSIS	892	LAXATIVE
839	CONTACT LENS TREATMENT	893	LIVER DISORDER
840	.Chemical sterilizing	894	.Hepatitis
841	CONTRACEPTIVE	895	MALARIA
842	.Non-mammal	896	MEASLES
843	.Female (mammal)	897	.Rubella
844	COSMETIC, FACIAL	898	MENINGITIS
845	.Liquid make-up	899	MENSTRUAL DISORDER
846	.Cleansing cream or lotion	900	MOUTH TREATMENT
847	.Facial moisturizer	901	.Periodontitis
848	.Facial astringent	902	.Mouthwash
849	COUGH AND COLD PREPARATION	903	.Gingival
850	.Antitussive	904	MULTIPLE SCLEROSIS
851	CYSTIC FIBROSIS	905	MULTIPLE VITAMINS
852	DANDRUFF	906	.With mineral
853	DECONGESTANT	907	MUSCLE RELAXANT
854	.Vasoconstrictor	908	MUSCULAR DYSTROPHY
855	.Expectorant	909	LEUKEMIA
	DERMATITIS	910	OBESITY
858	.Athlete's foot	911	.Anorectic
859	.Acne	912	.Bulking agent
860	.Cellulitis	913	OPHTHALMIC
861	.Eczema	914	.Glaucoma
862	.Poison (ivy, oak, sumac)	915	.Inflammation
863	.Psoriasis	916	.Wetting agent
864	.Seborrhea	917	PYRETIC
865	.Diaper rash	918	RADIOACTIVE, ANTI- REPELLENT
866	DIABETES	919	.Insect
867	DIARRHEA	920	.Mammal
868	DISTEMPER	921	SHOCK
869	DIURETIC	922	SIDE EFFECT REDUCTION BY INCORPORATION OF A SECOND DESIGNATED INGREDIENT
870	EDEMA	923	SLEEP AID (INSOMNIA)
871	.Topical	924	TUBERCULOSIS
872	EMESIS (MOTION SICKNESS-NAUSEA)	925	ULCER TREATMENT
873	EMOLLIENT		
874	ESTROGENIC AGENT (NONCONTRACEPTIVE)		
875	FLEA CONTROL		

926 .Duodenal
927 .Peptic
928 .Topical
929 **VASODILATOR**
930 **VASOCONSTRICTOR (NONDECONGESTANT)**
931 **VENERAL DISEASE**
932 .Gonorrhea
933 .Syphilis
934 .Virus
935 **UTERINE MOTILITY**
LIQUID CARRIER, DILUENT OR SOLVENT
936 **DMSO CONTAINING**
937 **DISPERSION OR EMULSION**
938 .Oil-water type
939 ..Mineral oil-water type
940 ...Quick break type
941 ...Polyoxyalkylated compound containing
942 ...Organic sulfonate, sulfate or sulfite containing
943 ...Higher fatty acid or derivative containing
944 **GEL**
945 **FOAM**
946 **PENETRANT OR ABSORBENT (ENHANCES PENETRATION INTO SUBJECT TREATED)**
947 .Topical application
SOLID CARRIER OR SOLID DILUENT
948 **SOLID CANDY TYPE**
949 **NATURALLY DERIVED CLAY (E.G., BENTONITE, ETC.)**
950 **MACROMOLECULAR (OTHER THAN SYNTHETIC RESINS)**
951 **POWDERS, GRANULES OR PARTICLES OF SPECIFIED MESH OR PARTICLE SIZE**
952 .Wettable
953 **SHAPED FORMS ADAPTED FOR NONINGESTIBLE USE OTHER THAN SUPPOSITORY TYPE (E.G., FILMS, INSERTS, ETC.)**
954 .Ocular
955 ..Biodegradable type
956 .Aural or otic (i.e., ear)
GASEOUS OR GAS EMITTING CARRIER OR PROPELLANT
957 **VAPOR EMMITTING COMPOSITION**
958 **FOR SMOKING OR INHALING**
959 **BREATHING GASES**
PILL, LOZENGE, TABLET OR CAPSULE

960 **SIGNIFICANT, TABLET FORMULATION (E.G., DESIGNATED EXCIPIENT, DISINTEGRANT, GLYDENT OR LUBRICANT, ETC.)**
961 .Binder therefor
962 **CAPSULE (E.G., GELATIN, ETC.)**
963 .Microcapsule-sustained or differential release
964 **SUSTAINED OR DIFFERENTIAL RELEASE TYPE**
965 .Discrete particles in supporting matrix
SUPPOSITORY, BOUGIE OR BASE
966 **RECTAL**
967 **VAGINAL**
968 **URETHRAL**
969 **OINTMENT OR SALVE BASE**
SPECIAL DESIGNATED INGREDIENT CONTAINING DESIGNATED INGREDIENT TO STABILIZE AN ACTIVE INGREDIENT
971 .Crystallization point depressant or cold stabilizer containing
972 .Ultraviolet light stabilizer containing
973 .Sulfur compound additive as stabilizer (e.g., sulfites, etc.)
974 **CONTAINING DESIGNATED INGREDIENT TO REDUCE NOXIOUS EFFECTS OF ACTIVE INGREDIENT (E.G., TASTE MASKING, ODOR REDUCING, ETC.)**
975 **CHARACTERIZED BY THE DESIGNATED SURFACTANT USED**

FOREIGN ART COLLECTIONS

FOR 000 **CLASS-RELATED FOREIGN DOCUMENTS**

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

DESIGNATED ORGANIC ACTIVE INGREDIENT CONTAINING (DOAI)

- .Heterocyclic carbon compounds
 containing a hetero ring
 having chalcogen (i.e., O,S,Se
 or Te) or nitrogen as the only
 ring hetero atoms DOAI
- ..Hetero ring is six-membered
 consisting of two nitrogens
 and four carbon atoms (e.g.,
 pyridazines, etc.)
- FOR 100 ...1,2- or 1,4-diazine compound
 having two or more hetero
 rings (514/252)
- FOR 101 ...Hetero ring other than 1,2-
 or 1,4-diazine is part of a
 polycyclo ring system (514/
 253)
- FOR 102Diazine is bonded directly
 to the polycyclo ring system
 (514/254)
- FOR 103 ...1,4-diazines (514/255)
- FOR 104 **HETERO RING IS FOUR-MEMBERED AND
 INCLUDES AT LEAST ONE NITROGEN
 ATOM (514/210)**
- FOR 105 **HETERO RING IS SEVEN-MEMBERED AND
 INCLUDES AT LEAST ONE NITROGEN
 ATOM AND AT LEAST ONE HETERO
 ATOM OTHER THAN NITROGEN (514/
 211)**
- FOR 106 **HETERO RING IS SEVEN-MEMBERED
 CONSISTING OF ONE NITROGEN AND
 SIX CARBON ATOMS (514/212)**
- FOR 107 .Polycyclo ring system having the
 seven-membered hetero ring as
 one of the cyclos (514/213)
- FOR 108 ..Ring nitrogen is shared by two
 or three of the cyclos (514/
 214)

DIGESTS

- DIG 1 .RU 486 (i.e., RU 38486, RU 486-
 6, Mifepristone, Mifestone,
 Mifegyne, (11B-[4-(N, N-
 dimethylamino) phenyl]-17a-
 (prop-1-ynyl)-^{4,9}-
 estradiene-17B-ol-3-one,
 (11B,17B)11-[4-
 (dimethylamino)-phenyl]-17-
 hydroxy-17-(1-propynyl) estra-
 4,9-dien-3-one)

