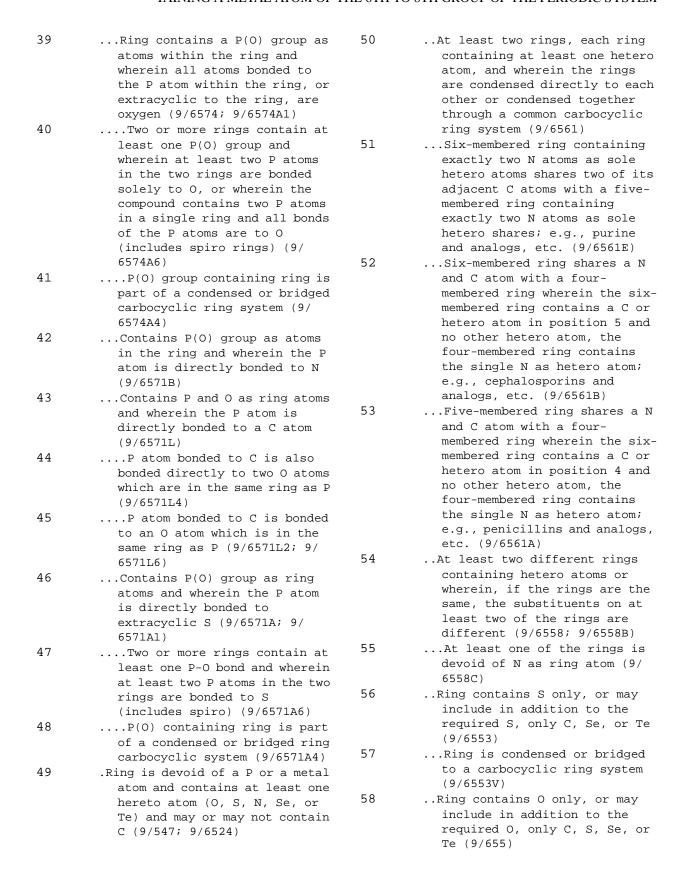
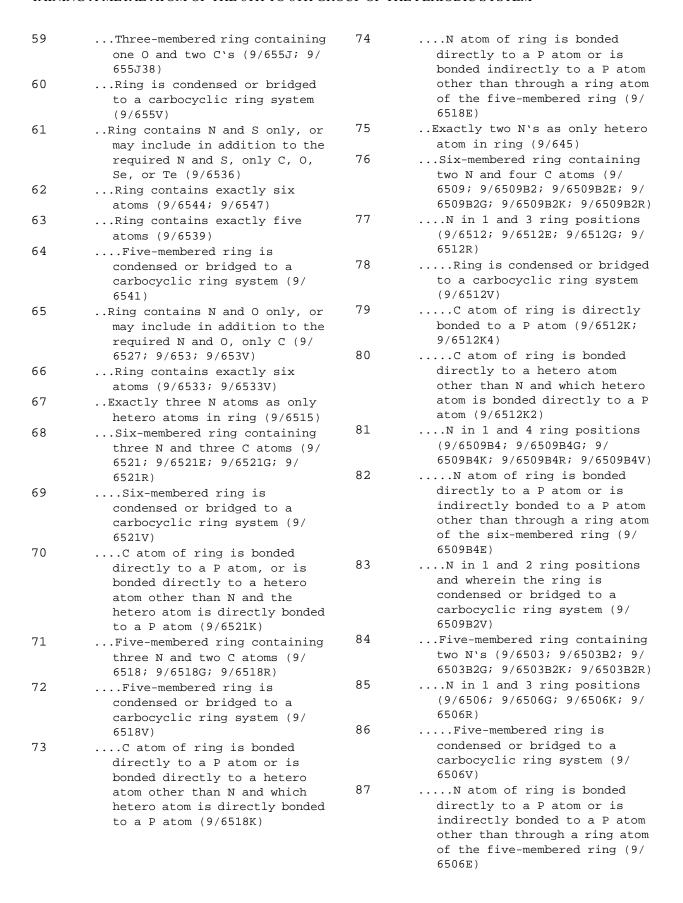
987 - 2 CLASS 987 ORGANIC COMPOUNDS CONTAINING A Bi, Sb, As, OR P ATOM OR CONTAINING A METAL ATOM OF THE 6TH TO 8TH GROUP OF THE PERIODIC SYSTEM





987 - 4 CLASS 987 ORGANIC COMPOUNDS CONTAINING A Bi, Sb, As, OR P ATOM OR CONTAINING A METAL ATOM OF THE 6TH TO 8TH GROUP OF THE PERIODIC SYSTEM

88	<pre>N in 1 and 2 ring positions and wherein the ring is condensed or bridged to a carbocyclic ring system (9/ 6503B2V)</pre>	105	N atom of ring is bonded directly to a P atom or indirectly to a P atom other than through a ring atom of the five-membered ring (9/
89	<pre>At least one N in 1 and 2 ring positions is bonded directly or indirectly to a P atom (9/6503B2E)</pre>	106	572E)Four-membered ring containing a single N atom is condensed or bridged to a carbocyclic
90	Single N as only hetero atom in ring (9/553; 9/568)	107	ring system (9/568V)N atom of four-membered ring
91	<pre>Seven or more atoms in ring containing the single N atom (9/553A7)</pre>		containing a single N atom is bonded directly to a P atom or indirectly to a P atom other
92 93	Six atoms in ring containing the single N atom (9/576)Acridine or hydrogenated		than through a ring atom of the four-membered ring (9/ 568E)
94	acridine ring (9/64)	108	Three-membered ring containing a single N atom (9/564)
	Isoquinoline or hydrogenated isoquinoline ring (9/62)	109	.Quaternary compounds containing the structure (C)a-P-(Z)b
95	<pre>Quinoline or hydrogenated quinoline ring (9/60)</pre>		where $a+b=4$, $a=1-3$, $b=1-3$, and
96	Hydrogenated pyridine ring (9/59; 9/59G; 9/59K; 9/59K2;	110	Z is an atom other than C or H (9/54K)
	9/59K4; 9/59R)	110	.Quaternary phosphonium compounds (C)a-P-(H)b wherein a+b=4,
97	Ring is condensed or bridged to a carbocyclic ring system (9/576V)		a=1-4, b=1-3, (9/54; 9/54A1; 9/54A1+W; 9/54A1+W2)
98	N of ring is bonded directly to a P atom or is indirectly	111	Contains the structure aryl- (C)n-P where n is at least one
	handed to a D atom other than		(9/54A7)
	bonded to a P atom other than through a ring atom of the	112	Contains two or more
	through a ring atom of the hydrogenated pyridine ring (9/59E)	112 113	Contains two or more phosphonium P atoms (9/54A6)Contains the structure (aryl
99	through a ring atom of the hydrogenated pyridine ring (9/59E)Pyridine ring (9/58; 9/58G; 9/58R)		 Contains two or more phosphonium P atoms (9/54A6) Contains the structure (aryl group*)-P where * indicates a direct bond between a carbon
99	through a ring atom of the hydrogenated pyridine ring (9/59E)Pyridine ring (9/58; 9/58G; 9/58R)C atom of ring is bonded directly to a P atom (9/58K;	113	Contains two or more phosphonium P atoms (9/54A6)Contains the structure (aryl group*)-P where * indicates a direct bond between a carbon of the aryl ring and the P atom (9/54A4)
100	through a ring atom of the hydrogenated pyridine ring (9/59E)Pyridine ring (9/58; 9/58G; 9/58R)C atom of ring is bonded directly to a P atom (9/58K; 9/58K4)		Contains two or more phosphonium P atoms (9/54A6)Contains the structure (aryl group*)-P where * indicates a direct bond between a carbon of the aryl ring and the P atom
	through a ring atom of the hydrogenated pyridine ring (9/59E)Pyridine ring (9/58; 9/58G; 9/58R)C atom of ring is bonded directly to a P atom (9/58K; 9/58K4)C atom of ring is bonded directly to a hetero atom other than N and which hetero atom is bonded directly to a P	113	Contains two or more phosphonium P atoms (9/54A6)Contains the structure (aryl group*)-P where * indicates a direct bond between a carbon of the aryl ring and the P atom (9/54A4)Contains the structure "carbocyclic ring"-P where " " indicates that a ring carbon of the carbocyclic ring may or may not be bonded directly to
100	through a ring atom of the hydrogenated pyridine ring (9/59E)Pyridine ring (9/58; 9/58G; 9/58R)C atom of ring is bonded directly to a P atom (9/58K; 9/58K4)C atom of ring is bonded directly to a hetero atom other than N and which hetero atom is bonded directly to a P atom (9/58K2)	113	Contains two or more phosphonium P atoms (9/54A6)Contains the structure (aryl group*)-P where * indicates a direct bond between a carbon of the aryl ring and the P atom (9/54A4)Contains the structure "carbocyclic ring"-P where " " indicates that a ring carbon of the carbocyclic ring may or may not be bonded directly to the P atom (9/54A3)
100 101 102	through a ring atom of the hydrogenated pyridine ring (9/59E)Pyridine ring (9/58; 9/58G; 9/58R)C atom of ring is bonded directly to a P atom (9/58K; 9/58K4)C atom of ring is bonded directly to a hetero atom other than N and which hetero atom is bonded directly to a P atom (9/58K2)N atom of ring is bonded directly to a P atom or indirectly to a P atom or indirectly to a P atom of the pyridine ring (9/58E)	113	Contains two or more phosphonium P atoms (9/54A6)Contains the structure (aryl group*)-P where * indicates a direct bond between a carbon of the aryl ring and the P atom (9/54A4)Contains the structure "carbocyclic ring"-P where " " indicates that a ring carbon of the carbocyclic ring may or may not be bonded directly to the P atom (9/54A3)Contains the structure "ethylenic group"-P where "" indicates that a carbon of the ethylenic group may or may not be bonded directly to the P
100	through a ring atom of the hydrogenated pyridine ring (9/59E)Pyridine ring (9/58; 9/58G; 9/58R)C atom of ring is bonded directly to a P atom (9/58K; 9/58K4)C atom of ring is bonded directly to a hetero atom other than N and which hetero atom is bonded directly to a P atom (9/58K2)N atom of ring is bonded directly to a P atom or indirectly to a P atom or indirectly to a P atom of	113	Contains two or more phosphonium P atoms (9/54A6)Contains the structure (aryl group*)-P where * indicates a direct bond between a carbon of the aryl ring and the P atom (9/54A4)Contains the structure "carbocyclic ring"-P where " " indicates that a ring carbon of the carbocyclic ring may or may not be bonded directly to the P atom (9/54A3)Contains the structure "ethylenic group"-P where "" indicates that a carbon of the ethylenic group may or may not

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53A6)

9/53A2)

or halogen atom or contains a

bonded to the P atom (9/53A1;

chalcogen atom other than

(9/535B)

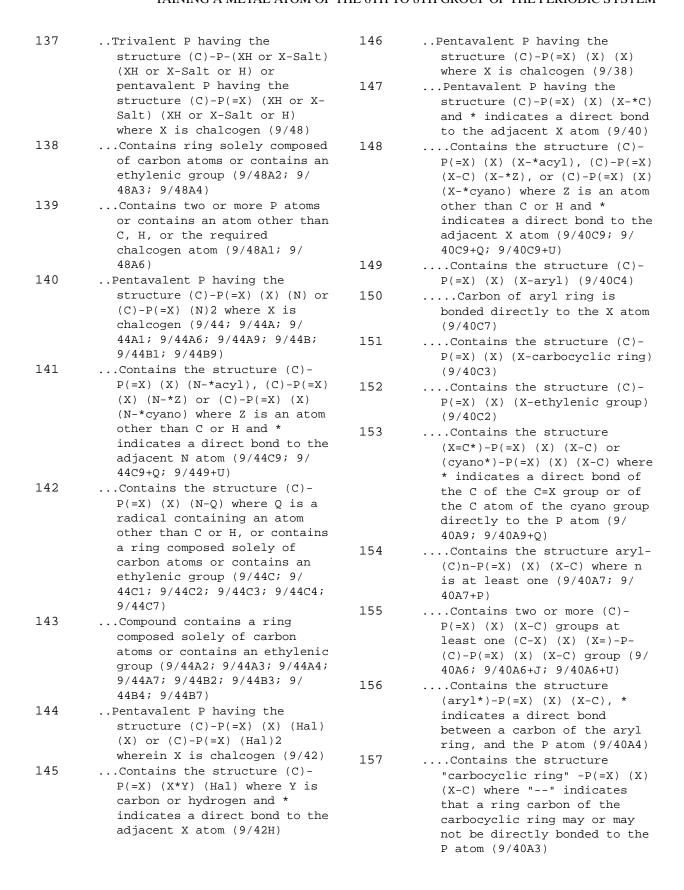
or pentavalent P having the

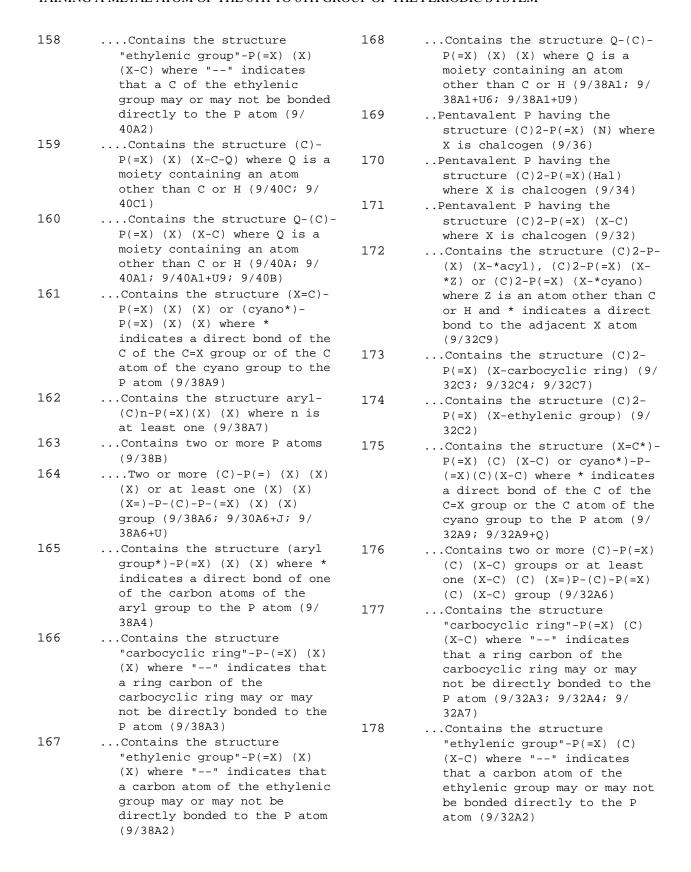
46)

structure (C)2-P(=X) (XH or X-

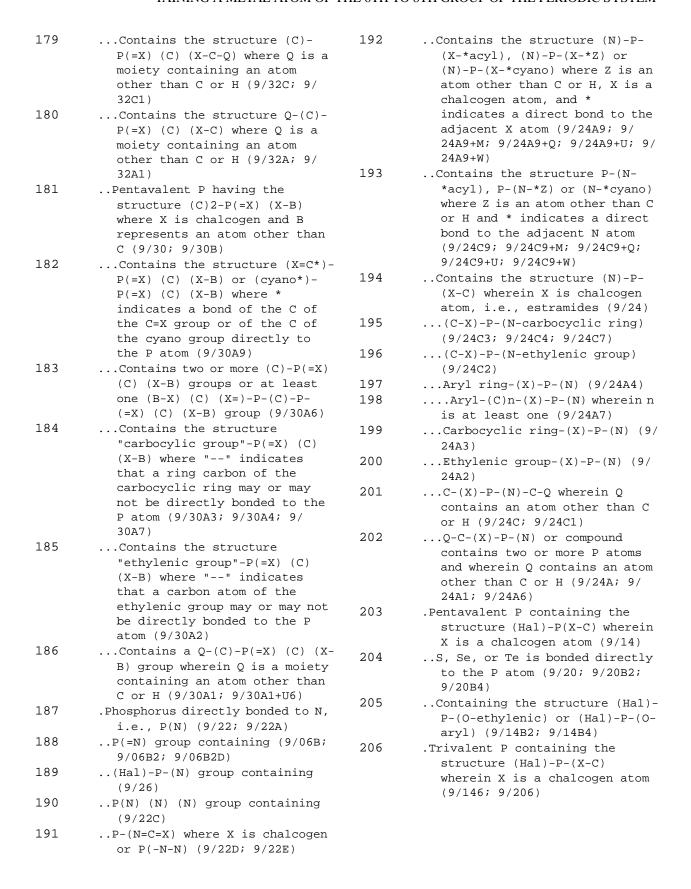
Salt) where X is chalcogen (9/

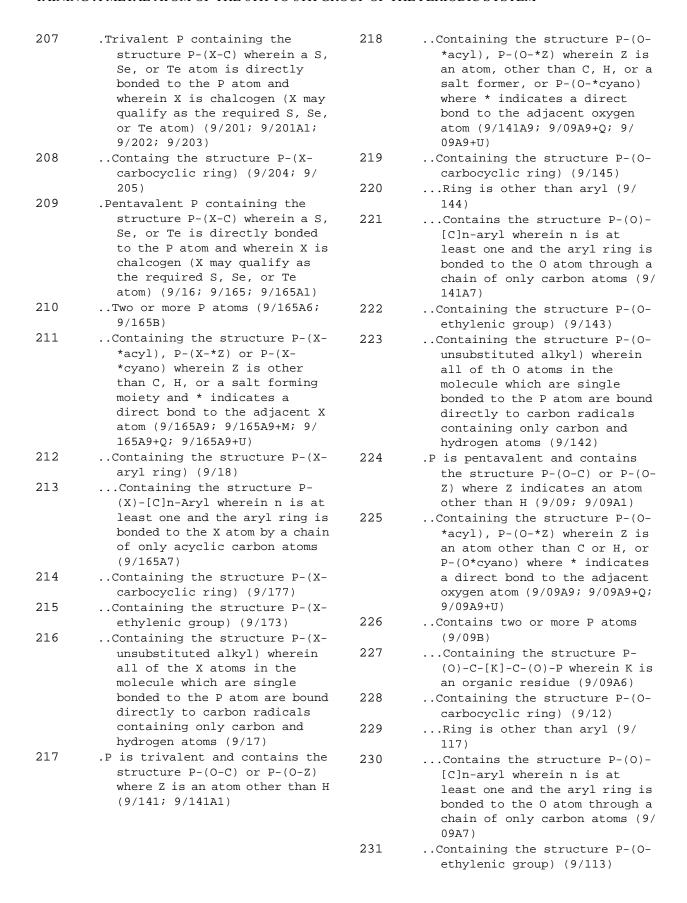
987 - 6 CLASS 987 ORGANIC COMPOUNDS CONTAINING A Bi, Sb, As, OR P ATOM OR CONTAINING A METAL ATOM OF THE 6TH TO 8TH GROUP OF THE PERIODIC SYSTEM





987 - 8 CLASS 987 ORGANIC COMPOUNDS CONTAINING A Bi, Sb, As, OR P ATOM OR CONTAINING A METAL ATOM OF THE 6TH TO 8TH GROUP OF THE PERIODIC SYSTEM





232	Containing the structure P-(O- unsubstituted alkyl) wherein all of the O atoms in the molecule which are single bonded to the P atom are bound	354 355	<pre>Five-membered ring contains the three N atoms (9/65C5; 9/ 65C5E; 9/65C5G; 9/65C5K; 9/ 65C5R; 9/65C5V) .Ring contains two N atoms (9/</pre>
	directly to carbon radicals		65B)
	containing only carbon and hydrogen atoms (9/11)	356 357	N in 1 and 4 positions (9/
233	Alchohol moiety of ester contains at least three	337	65B64; 9/65B64E; 9/65B64K; 9/65B4V)
	hydroxyl functions or derivatives thereof and wherein the oxygen atoms of the derivative can be attributed to the hydroxyl	358	N in 1 and 3 positions (9/ 65B63; 9/65B63E; 9/65B63G; 9/ 65B63J; 9/65B63K; 9/65B63K2; 9/65B63K4; 9/65B63M; 9/65B63R; 9/65B63V)
234	<pre>functions; e.g., phosphatides, lecithin, etc. (9/10) .Reaction products of at least</pre>	359	N in 1 and 2 positions (9/ 65B62; 9/65B62E; 9/65B62J; 9/
231	one compound containing both P	360	65B62K; 9/65B62M; 9/65B62V)
	and S atoms with a hydrocarbon or the reaction product of a P an a S reactant with a hydrocarbon (reactant P and S	361	<pre>Five-membered ring (9/65B5)N in 1 and 3 positions (9/ 65B53; 9/65B53E; 9/65B53G; 9/ 65B53J; 9/65B53K; 9/65B53M; 9/</pre>
	can be in elemental or	260	65B53R; 9/65B53V)
300	compound form) (9/04) COMPOUND CONTAINS BOTH A	362	N in 1 and 2 positions (9/ 65B52; 9/65B52E; 9/65B52J; 9/
	PHOSPHORUS AND A METAL ATOM	262	65B52K; 9/65B52M)
	(9/02A)	363	.Ring contains a single N atom (9/65A)
301	.Compound contains at least one atom of Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, W, Mn, Tc, or Re (9/	364	(O=)C-N-C(=O) group where C-N-C is part of the ring (9/65A9)
	02E)	365	Ring contains at least seven
302	.Compound contains at least one atom of Al, Ga, In, Tl, Ge, Sn, or Pb (9/02D)	366	ring atoms (9/65A7)Six-membered ring (9/65A6; 9/65A6E; 9/65A6G; 9/65A6J; 9/
303	.Compound contains at least one		65A6K; 9/65A6K2; 9/65A6K4; 9/
	atom of Cu, Zn, Ag, Cd, Au, or Hg (9/02C)	367	65A6M; 9/65A6R; 9/65A6V)Five-membered ring (9/65A5; 9/65A5E; 9/65A5G; 9/65A5J; 9/
304	.Compound contains at least one atom of Fe, Co, Ni, Ru, Rh, Pd, Os, Ir, or Pt (9/02B)	260	65A5K; 9/65A5K2; 9/65A5K4; 9/ 65A5M; 9/65A5R; 9/65A5V)
350	PHOSPHORUS CONTAINING AT LEAST ONE NITROGEN ATOM AS SOLE HETERO ATOM (9/65)	368	Four-membered ring (9/65A4; 9/65A4E; 9/65A4V)
351	.Ring contains at least four		
	nitrogen atoms (9/65D; 9/65D1; 9/65D2; 9/65D3; 9/65D3B)	FOREIGN	ART COLLECTIONS
352	.Ring contains three nitrogen atoms (9/65C)	FOR	CLASS-RELATED FOREIGN DOCUMENTS
353	Six-membered ring contains the three N atoms (9/65C6; 9/65C6E; 9/65C6G; 9/65C6K; 9/65C6Q; 9/65C6R; 9/65C6V)		