

## SECTION C — CHEMISTRY; METALLURGY

## C07 ORGANIC CHEMISTRY

**C07F ACYCLIC, CARBOCYCLIC, OR HETEROCYCLIC COMPOUNDS CONTAINING ELEMENTS OTHER THAN CARBON, HYDROGEN, HALOGEN, OXYGEN, NITROGEN, SULFUR, SELENIUM OR TELLURIUM** (metal-containing porphyrins C07D 487/22; macromolecular compounds C08)

**Note(s) [2, 7, 2006.01, 2010.01]**

1. Attention is drawn to Note (3) after class C07, which defines the last place priority rule applied in the range of subclasses C07C-C07K and within these subclasses.
2. Attention is drawn to Note (6) following the title of class C07.
3. Attention is drawn to Note (3) after the title of section C, which Note indicates to which version of the periodic table of chemical elements the IPC refers.
4. Therapeutic activity of compounds is further classified in subclass A61P.
5. In this subclass, organic acid salts, alcoholates, phenates, chelates or mercaptides are classified as the parent compounds.

**1/00 Compounds containing elements of Groups 1 or 11 of the Periodic System [1, 2006.01]**

- 1/02 • Lithium compounds [1, 2006.01]
- 1/04 • Sodium compounds [1, 2006.01]
- 1/06 • Potassium compounds [1, 2006.01]
- 1/08 • Copper compounds [1, 2006.01]
- 1/10 • Silver compounds [1, 2006.01]
- 1/12 • Gold compounds [1, 2006.01]

**3/00 Compounds containing elements of Groups 2 or 12 of the Periodic System [1, 2006.01]**

- 3/02 • Magnesium compounds [1, 2006.01]
- 3/04 • Calcium compounds [1, 2006.01]
- 3/06 • Zinc compounds [1, 2006.01]
- 3/08 • Cadmium compounds [1, 2006.01]
- 3/10 • Mercury compounds [1, 2006.01]
- 3/12 • • Aromatic substances containing mercury [1, 2006.01]
- 3/14 • • Heterocyclic substances containing mercury [1, 2006.01]

**5/00 Compounds containing elements of Groups 3 or 13 of the Periodic System [1, 2006.01]**

- 5/02 • Boron compounds [1, 2006.01]
- 5/04 • • Esters of boric acids [1, 2006.01]
- 5/05 • • Cyclic compounds having at least one ring containing boron but no carbon in the ring [2, 2006.01]
- 5/06 • Aluminium compounds [1, 2006.01]

**7/00 Compounds containing elements of Groups 4 or 14 of the Periodic System [1, 2006.01]**

- 7/02 • Silicon compounds [1, 2006.01]
- 7/04 • • Esters of silicic acids [1, 2006.01]
- 7/06 • • • with hydroxyaryl compounds [1, 2006.01]
- 7/07 • • • Cyclic esters [2, 2006.01]
- 7/08 • • Compounds having one or more C—Si linkages [1, 2006.01]
- 7/10 • • • containing nitrogen [1, 2006.01]
- 7/12 • • • Organo silicon halides [1, 2006.01]

- 7/14 • • • Preparation thereof from halogenated silanes and hydrocarbons [1, 2006.01]

- 7/16 • • • Preparation thereof from silicon and halogenated hydrocarbons [1, 2006.01]

- 7/18 • • • Compounds having one or more C—Si linkages as well as one or more C—O—Si linkages [1, 2006.01]

- 7/20 • • • Purification; Separation [1, 2006.01]

- 7/21 • • Cyclic compounds having at least one ring containing silicon but no carbon in the ring [2, 2006.01]

- 7/22 • Tin compounds [1, 2006.01]

- 7/24 • Lead compounds [1, 2006.01]

- 7/26 • • Tetra-alkyl lead compounds [1, 2006.01]

- 7/28 • Titanium compounds [1, 2006.01]

- 7/30 • Germanium compounds [2, 2006.01]

**9/00 Compounds containing elements of Groups 5 or 15 of the Periodic System [1, 2006.01]**

- 9/02 • Phosphorus compounds [1, 2, 2006.01]

- 9/04 • • Reaction products of phosphorus sulfur compounds with hydrocarbons [1, 2006.01]

- 9/06 • • without P—C bonds [1, 2006.01]

- 9/08 • • • Esters of oxyacids of phosphorus [1, 2006.01]

- 9/09 • • • Esters of phosphoric acids [2, 2006.01]

- 9/10 • • • • Phosphatides, e.g. lecithin [1, 2006.01]

- 9/11 • • • • with hydroxyalkyl compounds without further substituents on alkyl [2, 2006.01]

- 9/113 • • • • with unsaturated acyclic alcohols [2, 2006.01]

- 9/117 • • • • with cycloaliphatic alcohols [2, 2006.01]

- 9/12 • • • • with hydroxyaryl compounds [1, 2, 2006.01]

- 9/14 • • • • containing P-halide groups [1, 2, 2006.01]

- 9/141 • • • • Esters of phosphorous acids [2, 2006.01]

- 9/142 • • • • with hydroxyalkyl compounds without further substituents on alkyl [2, 2006.01]

- 9/143 • • • • with unsaturated acyclic alcohols [2, 2006.01]

- 9/144 • • • • with cycloaliphatic alcohols [2, 2006.01]

- 9/145 • • • • • with hydroxyaryl compounds [2, 2006.01]
- 9/146 • • • • • containing P-halide groups [2, 2006.01]
- 9/16 • • • Esters of thiophosphoric acids or thiophosphorous acids [1, 2006.01]
- 9/165 • • • • Esters of thiophosphoric acids [2, 2006.01]
- 9/17 • • • • • with hydroxyalkyl compounds without further substituents on alkyl [2, 2006.01]
- 9/173 • • • • • with unsaturated acyclic alcohols [2, 2006.01]
- 9/177 • • • • • with cycloaliphatic alcohols [2, 2006.01]
- 9/18 • • • • • with hydroxyaryl compounds [1, 2, 2006.01]
- 9/20 • • • • • containing P-halide groups [1, 2, 2006.01]
- 9/201 • • • • Esters of thiophosphorous acids [2, 2006.01]
- 9/202 • • • • • with hydroxyalkyl compounds without further substituents on alkyl [2, 2006.01]
- 9/203 • • • • • with unsaturated acyclic alcohols [2, 2006.01]
- 9/204 • • • • • with cycloaliphatic alcohols [2, 2006.01]
- 9/205 • • • • • with hydroxyaryl compounds [2, 2006.01]
- 9/206 • • • • • containing P-halide groups [2, 2006.01]
- 9/22 • • • Amides of acids of phosphorus [1, 2006.01]
- 9/24 • • • • Esteramides [1, 2006.01]
- 9/26 • • • • containing P-halide groups [1, 2006.01]
- 9/28 • • with one or more P—C bonds [1, 2006.01]
- 9/30 • • • Phosphinic acids ( $R_2=P(O)OH$ ); Thiophosphinic acids [1, 2006.01]
- 9/32 • • • • Esters thereof [1, 2006.01]
- 9/34 • • • • Halides thereof [1, 2006.01]
- 9/36 • • • • Amides thereof [1, 2006.01]
- 9/38 • • • Phosphonic acids ( $R-P(O)(OH)_2$ ); Thiophosphonic acids [1, 2006.01]
- 9/40 • • • • Esters thereof [1, 2006.01]
- 9/42 • • • • Halides thereof [1, 2006.01]
- 9/44 • • • • Amides thereof [1, 2006.01]
- 9/46 • • • Phosphinous acids ( $R_2=P-OH$ ); Thiophosphinous acids [1, 2006.01]
- 9/48 • • • Phosphonous acids ( $R-P(OH)_2$ ); Thiophosphonous acids [1, 2006.01]
- 9/50 • • • Organo-phosphines [1, 2006.01]
- 9/52 • • • • Halophosphines [1, 2006.01]
- 9/53 • • • • Organo-phosphine oxides; Organo-phosphine sulfides [2, 2006.01]
- 9/535 • • • Organo-phosphoranes [3, 2006.01]
- 9/54 • • • Quaternary phosphonium compounds [1, 2006.01]
- 9/547 • • Heterocyclic compounds, e.g. containing phosphorus as a ring hetero atom [5, 2006.01]
- 9/553 • • • having one nitrogen atom as the only ring hetero atom [5, 2006.01]
- 9/564 • • • • Three-membered rings [5, 2006.01]
- 9/568 • • • • Four-membered rings [5, 2006.01]
- 9/572 • • • • Five-membered rings [5, 2006.01]
- 9/576 • • • • Six-membered rings [5, 2006.01]
- 9/58 • • • • • Pyridine rings [1, 5, 2006.01]
- 9/59 • • • • • Hydrogenated pyridine rings [5, 2006.01]
- 9/60 • • • • • Quinoline or hydrogenated quinoline ring systems [1, 5, 2006.01]
- 9/62 • • • • • Isoquinoline or hydrogenated isoquinoline ring systems [1, 5, 2006.01]
- 9/64 • • • • • Acridine or hydrogenated acridine ring systems [1, 5, 2006.01]
- 9/645 • • • having two nitrogen atoms as the only ring hetero atoms [5, 2006.01]
- 9/6503 • • • • Five-membered rings [5, 2006.01]
- 9/6506 • • • • • having the nitrogen atoms in positions 1 and 3 [5, 2006.01]
- 9/6509 • • • • Six-membered rings [5, 2006.01]
- 9/6512 • • • • • having the nitrogen atoms in positions 1 and 3 [5, 2006.01]
- 9/6515 • • • having three nitrogen atoms as the only ring hetero atoms [5, 2006.01]
- 9/6518 • • • • Five-membered rings [5, 2006.01]
- 9/6521 • • • • Six-membered rings [5, 2006.01]
- 9/6524 • • • having four or more nitrogen atoms as the only ring hetero atoms [5, 2006.01]
- 9/6527 • • • having nitrogen and oxygen atoms as the only ring hetero atoms [5, 2006.01]
- 9/653 • • • • Five-membered rings [5, 2006.01]
- 9/6533 • • • • Six-membered rings [5, 2006.01]
- 9/6536 • • • having nitrogen and sulfur atoms with or without oxygen atoms, as the only ring hetero atoms [5, 2006.01]
- 9/6539 • • • • Five-membered rings [5, 2006.01]
- 9/6541 • • • • • condensed with carbocyclic rings or ring systems [5, 2006.01]
- 9/6544 • • • • Six-membered rings [5, 2006.01]
- 9/6547 • • • • • condensed with carbocyclic rings or ring systems [5, 2006.01]
- 9/655 • • • having oxygen atoms, with or without sulfur, selenium, or tellurium atoms, as the only ring hetero atoms [5, 2006.01]
- 9/6553 • • • having sulfur atoms, with or without selenium or tellurium atoms, as the only ring hetero atoms [5, 2006.01]
- 9/6558 • • • containing at least two different or differently substituted hetero rings neither condensed among themselves nor condensed with a common carbocyclic ring or ring system [5, 2006.01]
- 9/6561 • • • containing systems of two or more relevant hetero rings condensed among themselves or condensed with a common carbocyclic ring or ring system, with or without other non-condensed hetero rings [5, 2006.01]
- 9/6564 • • • having phosphorus atoms, with or without nitrogen, oxygen, sulfur, selenium or tellurium atoms, as ring hetero atoms [5, 2006.01]
- 9/6568 • • • • having phosphorus atoms as the only ring hetero atoms [5, 2006.01]
- 9/6571 • • • • having phosphorus and oxygen atoms as the only ring hetero atoms [5, 2006.01]
- 9/6574 • • • • • Esters of oxyacids of phosphorus [5, 2006.01]
- 9/6578 • • • • having phosphorus and sulfur atoms with or without oxygen atoms, as ring hetero atoms [5, 2006.01]
- 9/6581 • • • • having phosphorus and nitrogen atoms with or without oxygen or sulfur atoms, as ring hetero atoms [5, 2006.01]
- 9/6584 • • • • • having one phosphorus atom as ring hetero atom [5, 2006.01]
- 9/6587 • • • • • having two phosphorus atoms as ring hetero atoms [5, 2006.01]
- 9/659 • • • • • having three phosphorus atoms as ring hetero atoms [5, 2006.01]
- 9/6593 • • • • • 1,3,5-Triaza-2,4,6-triphosphorines [5, 2006.01]

- 9/6596 • • • having atoms other than oxygen, sulfur, selenium, tellurium, nitrogen or phosphorus as ring hetero atoms [5, 2006.01]
- 9/66 • Arsenic compounds [1, 2006.01]
- 9/68 • • without As—C bonds [1, 2006.01]
- 9/70 • • Organo-arsenic compounds [1, 2006.01]
- 9/72 • • • Aliphatic compounds [1, 2006.01]
- 9/74 • • • Aromatic compounds [1, 2006.01]
- 9/76 • • • • containing hydroxyl groups [1, 2006.01]
- 9/78 • • • • containing amino groups [1, 2006.01]
- 9/80 • • • Heterocyclic compounds [1, 2006.01]
- 9/82 • • • • Arsenic compounds containing one or more pyridine rings [1, 2006.01]
- 9/84 • • • • Arsenic compounds containing one or more quinoline ring systems [1, 2006.01]
- 9/86 • • • • Arsenic compounds containing one or more isoquinoline ring systems [1, 2006.01]
- 9/88 • • • • Arsenic compounds containing one or more acridine ring systems [1, 2006.01]
- 9/90 • Antimony compounds [1, 2006.01]
- 9/92 • • Aromatic compounds [1, 2006.01]
- 9/94 • Bismuth compounds [1, 2006.01]
- 11/00 **Compounds containing elements of Groups 6 or 16 of the Periodic System [1, 2006.01]**
- 13/00 **Compounds containing elements of Groups 7 or 17 of the Periodic System [1, 2006.01]**
- 15/00 **Compounds containing elements of Groups 8, 9, 10 or 18 of the Periodic System [1, 2006.01]**
- 15/02 • Iron compounds [1, 2006.01]
- 15/03 • • Sideramines; The corresponding desferri compounds [1, 2006.01]
- 15/04 • Nickel compounds [1, 2006.01]
- 15/06 • Cobalt compounds [1, 2006.01]
- 17/00 **Metallocenes [2, 2006.01]**
- 17/02 • of metals of Groups 8, 9 or 10 of the Periodic System [2, 2006.01]
- 19/00 **Metal compounds according to more than one of main groups C07F 1/00-C07F 17/00 [5, 2006.01]**