

## 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)**

- 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.
- Attention is drawn to Note (6) following the title of class C07.
- 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.
- Therapeutic activity of compounds is further classified in subclass A61P.
- 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**

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

**3/00 Compounds containing elements of Groups 2 or 12 of the Periodic System**

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

**5/00 Compounds containing elements of Groups 3 or 13 of the Periodic System**

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

**7/00 Compounds containing elements of Groups 4 or 14 of the Periodic System**

- 7/02 • Silicon compounds
- 7/04 • • Esters of silicic acids
- 7/06 • • • with hydroxyaryl compounds
- 7/07 • • • Cyclic esters [2]
- 7/08 • • Compounds having one or more C—Si linkages
- 7/10 • • • containing nitrogen
- 7/12 • • • Organo silicon halides
- 7/14 • • • • Preparation thereof from halogenated silanes and hydrocarbons
- 7/16 • • • • Preparation thereof from silicon and halogenated hydrocarbons

- 7/18 • • • Compounds having one or more C—Si linkages as well as one or more C—O—Si linkages

- 7/20 • • • Purification; Separation

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

- 7/22 • Tin compounds

- 7/24 • Lead compounds

- 7/26 • • Tetra-alkyl lead compounds

- 7/28 • Titanium compounds

- 7/30 • Germanium compounds [2]

**9/00 Compounds containing elements of Groups 5 or 15 of the Periodic System**

- 9/02 • Phosphorus compounds [2]

- 9/04 • • Reaction products of phosphorus sulfur compounds with hydrocarbons

- 9/06 • • without P—C bonds

- 9/08 • • • Esters of oxyacids of phosphorus

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

- 9/10 • • • • Phosphatides, e.g. lecithin

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

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

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

- 9/12 • • • • with hydroxyaryl compounds [2]

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

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

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

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

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

- 9/145 • • • • with hydroxyaryl compounds [2]

- 9/146 • • • • containing P-halide groups [2]

- 9/16 • • • Esters of thiophosphoric acids or thiophosphorous acids

- 9/165 • • • • Esters of thiophosphoric acids [2]

- 9/17 • • • • with hydroxyalkyl compounds without further substituents on alkyl [2]

- 9/173 • • • • with unsaturated acyclic alcohols [2]

- 9/177 • • • • with cycloaliphatic alcohols [2]

- 9/18 • • • • • with hydroxyaryl compounds [2]
- 9/20 • • • • • containing P-halide groups [2]
- 9/201 • • • • • Esters of thiophosphorous acids [2]
- 9/202 • • • • • with hydroxyalkyl compounds without further substituents on alkyl [2]
- 9/203 • • • • • with unsaturated acyclic alcohols [2]
- 9/204 • • • • • with cycloaliphatic alcohols [2]
- 9/205 • • • • • with hydroxyaryl compounds [2]
- 9/206 • • • • • containing P-halide groups [2]
- 9/22 • • • Amides of acids of phosphorus
- 9/24 • • • • Esteramides
- 9/26 • • • • containing P-halide groups
- 9/28 • • with one or more P—C bonds
- 9/30 • • • Phosphinic acids ( $R_2=P(O)OH$ ); Thiophosphinic acids
- 9/32 • • • • Esters thereof
- 9/34 • • • • Halides thereof
- 9/36 • • • • Amides thereof
- 9/38 • • • Phosphonic acids ( $R-P(O)(OH)_2$ ); Thiophosphonic acids
- 9/40 • • • • Esters thereof
- 9/42 • • • • Halides thereof
- 9/44 • • • • Amides thereof
- 9/46 • • • Phosphinous acids ( $R_2=P-OH$ ); Thiophosphinous acids
- 9/48 • • • Phosphonous acids ( $R-P(OH)_2$ ); Thiophosphonous acids
- 9/50 • • • Organo-phosphines
- 9/52 • • • • Halophosphines
- 9/53 • • • • Organo-phosphine oxides; Organo-phosphine sulfides [2]
- 9/535 • • • Organo-phosphoranes [3]
- 9/54 • • • Quaternary phosphonium compounds
- 9/547 • • Heterocyclic compounds, e.g. containing phosphorus as a ring hetero atom [5]
- 9/553 • • • having one nitrogen atom as the only ring hetero atom [5]
- 9/564 • • • • Three-membered rings [5]
- 9/568 • • • • Four-membered rings [5]
- 9/572 • • • • Five-membered rings [5]
- 9/576 • • • • Six-membered rings [5]
- 9/58 • • • • Pyridine rings [5]
- 9/59 • • • • Hydrogenated pyridine rings [5]
- 9/60 • • • • Quinoline or hydrogenated quinoline ring systems [5]
- 9/62 • • • • Isoquinoline or hydrogenated isoquinoline ring systems [5]
- 9/64 • • • • Acridine or hydrogenated acridine ring systems [5]
- 9/645 • • • having two nitrogen atoms as the only ring hetero atoms [5]
- 9/6503 • • • • Five-membered rings [5]
- 9/6506 • • • • having the nitrogen atoms in positions 1 and 3 [5]
- 9/6509 • • • • Six-membered rings [5]
- 9/6512 • • • • having the nitrogen atoms in positions 1 and 3 [5]
- 9/6515 • • • having three nitrogen atoms as the only ring hetero atoms [5]
- 9/6518 • • • • Five-membered rings [5]
- 9/6521 • • • • Six-membered rings [5]
- 9/6524 • • • having four or more nitrogen atoms as the only ring hetero atoms [5]
- 9/6527 • • • having nitrogen and oxygen atoms as the only ring hetero atoms [5]
- 9/653 • • • • Five-membered rings [5]
- 9/6533 • • • • Six-membered rings [5]
- 9/6536 • • • having nitrogen and sulfur atoms with or without oxygen atoms, as the only ring hetero atoms [5]
- 9/6539 • • • • Five-membered rings [5]
- 9/6541 • • • • condensed with carbocyclic rings or ring systems [5]
- 9/6544 • • • • Six-membered rings [5]
- 9/6547 • • • • condensed with carbocyclic rings or ring systems [5]
- 9/655 • • • having oxygen atoms, with or without sulfur, selenium, or tellurium atoms, as the only ring hetero atoms [5]
- 9/6553 • • • having sulfur atoms, with or without selenium or tellurium atoms, as the only ring hetero atoms [5]
- 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]
- 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]
- 9/6564 • • • having phosphorus atoms, with or without nitrogen, oxygen, sulfur, selenium or tellurium atoms, as ring hetero atoms [5]
- 9/6568 • • • • having phosphorus atoms as the only ring hetero atoms [5]
- 9/6571 • • • • having phosphorus and oxygen atoms as the only ring hetero atoms [5]
- 9/6574 • • • • Esters of oxyacids of phosphorus [5]
- 9/6578 • • • • having phosphorus and sulfur atoms with or without oxygen atoms, as ring hetero atoms [5]
- 9/6581 • • • • having phosphorus and nitrogen atoms with or without oxygen or sulfur atoms, as ring hetero atoms [5]
- 9/6584 • • • • having one phosphorus atom as ring hetero atom [5]
- 9/6587 • • • • having two phosphorus atoms as ring hetero atoms [5]
- 9/659 • • • • having three phosphorus atoms as ring hetero atoms [5]
- 9/6593 • • • • 1,3,5-Triaza-2,4,6-triphosphorines [5]
- 9/6596 • • • having atoms other than oxygen, sulfur, selenium, tellurium, nitrogen or phosphorus as ring hetero atoms [5]
- 9/66 • Arsenic compounds
- 9/68 • • without As—C bonds
- 9/70 • • Organo-arsenic compounds
- 9/72 • • • Aliphatic compounds
- 9/74 • • • Aromatic compounds
- 9/76 • • • • containing hydroxyl groups
- 9/78 • • • • containing amino groups
- 9/80 • • • Heterocyclic compounds
- 9/82 • • • • Arsenic compounds containing one or more pyridine rings
- 9/84 • • • • Arsenic compounds containing one or more quinoline ring systems
- 9/86 • • • • Arsenic compounds containing one or more isoquinoline ring systems
- 9/88 • • • • Arsenic compounds containing one or more acridine ring systems

9/90	• Antimony compounds	15/02	• Iron compounds
9/92	• • Aromatic compounds	15/03	• • Sideramines; The corresponding desferri compounds
9/94	• Bismuth compounds	15/04	• Nickel compounds
<b>11/00</b>	<b>Compounds containing elements of Groups 6 or 16 of the Periodic System</b>	15/06	• Cobalt compounds
<b>13/00</b>	<b>Compounds containing elements of Groups 7 or 17 of the Periodic System</b>	<b>17/00</b>	<b>Metallocenes [2]</b>
<b>15/00</b>	<b>Compounds containing elements of Groups 8, 9, 10 or 18 of the Periodic System</b>	17/02	• of metals of Groups 8, 9 or 10 of the Periodic System [2]
		<b>19/00</b>	<b>Metal compounds according to more than one of main groups C07F 1/00-C07F 17/00 [5]</b>