



>>Entry Name: Diphenylphosphinous chloride, 9Cl

Synonym(s): Chlorodiphenylphosphine

CAS Registry Number: 1079-66-9

Type of Compound Code(s): AC3020

Ph₂PCl

Molecular Formula: C₁₂H₁₀ClP

Molecular Weight: 220.637

Accurate Mass: 220.020864

Percentage Composition: C 65.33%; H 4.57%; Cl 16.07%; P 14.04%

Use/Importance: Ligand for metals of groups IB, VIB, VIIB, and VIII. Used for synth. of alkenes from *vic*-diols

Physical Description: Air-sensitive pale yellow liq.

Boiling Point: Bp 320°. Bp₅ 174°. Bp_{0.6} 124-126°

Hazard & Toxicity: Lachrymator

Aldrich: C3960-1

Fluka: 24485

References:

- Aldrich Library of FT-IR Spectra*, 1st edn., 1985, **2**, 554B, (*ir*)
Aldrich Library of NMR Spectra, 2nd edn., 1983, **2**, 891C, (*nmr*)
Horner, L. *et al.*, *Chem. Ber.*, 1961, **94**, 2122, (*synth*)
Maier, L., *J. Inorg. Nucl. Chem.*, 1962, **24**, 1073, (*synth*)
Shagidullin, R.R. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1971, 183; *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 1971, 165, (*uv*)
Petrov, K.A. *et al.*, *Zh. Obshch. Khim.*, 1973, **43**, 37; *J. Gen. Chem. USSR (Engl. Transl.)*, 1973, **43**, 34, (*synth*)
Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1974, **4**, 303; **16**, 77; **11**, 120; 564, (*use*)
Maier, L. *et al.*, *Phosphorus Relat. Group V Elem.*, 1974, **4**, 41, (*pmr*, *P-31 nmr*)
Appel, R. *et al.*, *Chem. Ber.*, 1975, **108**, 1783; 1977, **110**, 376, (*synth*, *P-31 nmr*)
Weinberg, K.G., *J.O.C.*, 1975, **40**, 3586, (*synth*)
Modro, T.A., *Can. J. Chem.*, 1977, **55**, 3681, (*cmr*)
Vincent, E. *et al.*, *J. Mol. Struct.*, 1980, **65**, 239, (*P-31 nmr*)
Bergrová-Přádná, S., *Coll. Czech. Chem. Comm.*, 1981, **46**, 2289, (*ir*)
Bodner, G.M. *et al.*, *J. Organomet. Chem.*, 1983, **243**, 305, (*cmr*)
Verdonck, L. *et al.*, *Spectrochim. Acta A*, 1984, **40**, 299, (*ir*, *Raman*)
Gloede, J. *et al.*, *Z. Anorg. Allg. Chem.*, 1986, **535**, 221, (*synth*, *P-31 nmr*)
Liu, Z. *et al.*, *J.O.C.*, 1990, **55**, 4273, (*use*)