



>>Entry Name: Tetramethylphosphorodiamidous chloride, 9Cl

Synonym(s): Bis(dimethylamino)chlorophosphine. *N,N,N',N'*-Tetramethyldiaminophosphorochloridite

CAS Registry Number: 3348-44-5

(Me₂N)₂PCl

Molecular Formula: C₄H₁₂ClN₂P

Molecular Weight: 154.579

Accurate Mass: 154.042662

Percentage Composition: C 31.08%; H 7.82%; Cl 22.94%; N 18.12%; P 20.04%

Physical Description: Liq.

Melting Point: Mp −33°

Boiling Point: Bp₇₂₆ 184°. Bp₁₀ 64°

Density: d₄²⁰ 1.07

Refractive Index: n_D²⁰ 1.4950

Hazard & Toxicity: Inflames on standing in air. Reacts explosively with H₂O

References:

Nöth, H. *et al.*, *Chem. Ber.*, 1963, **96**, 1109, (*synth*)

v. Wazer, J.R. *et al.*, *J.A.C.S.*, 1964, **86**, 811, (*P-31 nmr*)

Wolf, R. *et al.*, *Bull. Soc. Chim. Fr.*, 1965, 2368, (*pmr, ir*)

Osokin, D.Ya. *et al.*, *Org. Magn. Reson.*, 1972, **4**, 831, (*nqr*)

Whitesides, G. *et al.*, *J.A.C.S.*, 1974, **96**, 5398, (*synth*)

Lappert, M.F. *et al.*, *J.C.S. Dalton*, 1975, 1207, (*pe*)

Bulloch, G. *et al.*, *J.C.S. Dalton*, 1978, 764, (*cmr, pmr*)

Barlos, K. *et al.*, *Z. Naturforsch., B*, 1978, **33**, 515, (*N-15 nmr*)

Gouesnard, J.-P. *et al.*, *Can. J. Chem.*, 1980, **58**, 1295, (*P-31 nmr, N-15 nmr*)

Synthetic Methods of Organometallic and Inorganic Chemistry, (ed. Hermann, W.A.), Thieme, 1996, **3**, 73-75, (*synth, pmr, P-31 nmr*)