



>>Entry Name: Bis(4-methylphenyl)phosphine, 9Cl

Synonym(s): Di-*p*-tolylphosphine, 8Cl

CAS Registry Number: 1017-60-3

Molecular Formula: C₁₄H₁₅P

Molecular Weight: 214.246

Accurate Mass: 214.091137

Percentage Composition: C 78.49%; H 7.06%; P 14.46%

Use/Importance: Ligand for Cr, Fe, Os, Rh, and Ru

Physical Description: Foul-smelling liq.

Boiling Point: Bp₂ 121-122°

pKa Value: pK_a 24.4 (DMSO)

Other Data: Li deriv. exhibits strong yellow chemiluminescence

>>Derivative: Oxide

CAS Registry Number: 2409-61-2

Molecular Formula: C₁₄H₁₅OP

Molecular Weight: 230.246

Accurate Mass: 230.086052

Percentage Composition: C 73.03%; H 6.57%; O 6.95%; P 13.45%

Physical Description: Cryst. (PhBr)

Melting Point: Mp 93-96°. Mp 98-99°

pKa Value: pK_a 22 (25°,DMSO)

Other Data: Tautomeric with Bis(4-methylphenyl)phosphinous acid [DHB10-J](#)

References:

Horner, L. *et al.*, *Chem. Ber.*, 1968, **101**, 2899, (*synth*)

Strecker, R.A. *et al.*, *J.A.C.S.*, 1973, **95**, 210, (*Li salt, oxide*)

Grim, S.O. *et al.*, *J.O.C.*, 1977, **42**, 1236, (*P-31 nmr*)

Tsvetkov, E.N. *et al.*, *Izv. Akad. Nauk SSSR, Ser. Khim.*, 1978, 1981; *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Engl. Transl.)*, 1978, 1743, (*oxide*)

Terekhova, M.I. *et al.*, *Zh. Obshch. Khim.*, 1982, **52**, 516; *J. Gen. Chem. USSR (Engl. Transl.)*, 1986, **52**, 452, (*props*)

Patsanovskii, I.I. *et al.*, *Zh. Obshch. Khim.*, 1986, **56**, 567; *J. Gen. Chem. USSR (Engl. Transl.)*, 1986, **56**, 501, (*oxide, synth*)