



>>Entry Name: Di-*tert*-butylmethylphosphine

Synonym(s): Bis(1,1-dimethylethyl)methylphosphine, 10CI

CAS Registry Number: 6002-40-0

MeP[C(CH₃)₃]₂

Molecular Formula: C₉H₂₁P

Molecular Weight: 160.239

Accurate Mass: 160.138087

Percentage Composition: C 67.46%; H 13.21%; P 19.33%

Use/Importance: Ligand for Cr, Ir, Pd, Pt, Rh and Ru

Physical Description: Liq. which oxidises v. easily in air

Boiling Point: Bp₁₂ 58°

Refractive Index: n_D²⁰ 1.4707

>>Derivative: Oxide

CAS Registry Number: 18351-81-0

Molecular Formula: C₉H₂₁OP

Molecular Weight: 176.238

Accurate Mass: 176.133002

Percentage Composition: C 61.34%; H 12.01%; O 9.08%; P 17.57%

Physical Description: Low-melting solid

Melting Point: Mp 35-37°

Boiling Point: Bp_{0.08} 60-62°

References:

Karsch, H.H. *et al.*, *Z. Naturforsch., B*, 1977, **32**, 762

Kolodyazhnyi, O.I., *Zh. Obshch. Khim.*, 1981, **51**, 2466; 1982, **52**, 1086; *J. Gen. Chem. USSR (Engl. Transl.)*, 1981, **51**, 2125; 1982, **52**, 946, (*synth, oxide, pmr, P-31 nmr*)

Synthetic Methods of Organometallic and Inorganic Chemistry, (ed. Hermann, W.A.), Thieme, 1996, **3**, 88-90, (*synth, P-31 nmr*)