



>>Entry Name: Dihydroxy(methyl)borane

Synonym(s): Methylboronic acid, 12Cl, 9Cl. Methylboric acid. Methaneboric acid. Methylidihydroxyborane

CAS Registry Number: 13061-96-6

MeB(OH)₂

Molecular Formula: CH₅BO₂

Molecular Weight: 59.86

Accurate Mass: 60.03826

Percentage Composition: C 20.07%; H 8.42%; B 18.06%; O 53.46%

Use/Importance: Derivatisation reagent for anal. of bifunctional org. compds.

Physical Description: Pale yellow needles (H₂O)

Melting Point: Mp 95-100 dec.° (freshly prepared)

Other Data: Readily dehydrates to trimethylboroxin

Aldrich: 16533-6

Fluka: 65948

Sigma: M8024

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **3**, 732C, (*nmr*)

Burg, A.B., *J.A.C.S.*, 1940, **62**, 2228, (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 1231, (*use*)

De Moor, J.E. *et al.*, *J. Organomet. Chem.*, 1967, **9**, 31, (*ir, Raman*)

Nöth, H. *et al.*, *J. Organomet. Chem.*, 1968, **12**, 23, (*pmr*)

McFarlane, W. *et al.*, *Chem. Ber.*, 1975, **108**, 2112, (*nmr*)

Rensch, H. *et al.*, *Chem. Ber.*, 1977, **110**, 2189, (*synth*)

Kossa, W.C., *Chem. Deriv. Anal. Chem.*, (Eds. Frei, R.W. *et al.*), Plenum, 1981, 99, (*rev*)

Brown, H.C. *et al.*, *Tetrahedron*, 1987, **43**, 4071, (*synth*)