



>>Entry Name: Bis(3-methyl-2-butyl)borane

Synonym(s): Bis(1,2-dimethylpropyl)borane, 12Cl, 9Cl. Disiamylborane

CAS Registry Number: 1069-54-1

$(\text{H}_3\text{C})_2\text{CHCH}(\text{CH}_3)\text{BHCH}(\text{CH}_3)\text{CH}(\text{CH}_3)_2$

Molecular Formula: $\text{C}_{10}\text{H}_{23}\text{B}$

Molecular Weight: 154.103

Accurate Mass: 154.18928

Percentage Composition: C 77.94%; H 15.04%; B 7.02%

General Statement: Usually exists as a bridged dimer

Use/Importance: Selective reducing agent for carbonyl functions, unhindered alcohols and alkynes

Physical Description: Air- and moisture-sensitive solid

Melting Point: Mp 35-40°

Aldrich: 22078-7

References:

Brown, H.C. *et al.*, *J.A.C.S.*, 1961, **83**, 1241-1246, (*synth, use*)

Holan, G. *et al.*, *Tet. Lett.*, 1973, 673-674, (*use*)

Brown, H.C. *et al.*, *J.O.C.*, 1974, **39**, 1631-1636, (*use*)

Negishi, E. *et al.*, *Tet. Lett.*, 1977, 411-414, (*use*)

Hubbard, J.C. *et al.*, *J. Organomet. Chem.*, 1978, **156**, 81-94, (*synth, nmr, use*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1980, **8**, 41, (*use*)

Pelter, A. *et al.*, *Borane Reagents*, Academic Press, New York, 1988, (*rev*)

Compr. Organic Synthesis, Pergamon, 1991, **8**, 203, (*rev*)