Trimethylamine, compd. with borane (1:1)

Other names:	Boron, (N,N-dimethylmethanamine)trihydro-, (T-4)-
	Trimethylamine borane
	(CH3)3NBH3
	Borane-trimethylamine complex
	Borane-trimethylamine (1:1)
	Methanamine, N,N-dimethyl-, compd. with borane (1:1)
	Borane, compd. with N,N-dimethylmethanamine (1:1)
	Borane, compd. with trimethylamine (1:1)
	TMAB
	NSC 10220
	trimethylamine--borane (1:1)
	Boron, (N,N-dimethylmethanamine)trihydro-
Inchi:	InChI=1S/C3H12BN/c1-5(2,3)4/h1-4H3
InchiKey:	KQVSXUGMDCAISO-UHFFFAOYSA-N
Formula:	C3H12BN
SMILES:	[BH3-][N+](C)(C)C
Mol. weight [g/mol]:	72.94
CAS:	75-22-9

Physical Properties

Property code	Value	Unit	Source
ie	9.30 ± 0.20	eV	NIST Webbook
log10ws	4.01		Crippen Method
logp	-1.027		Crippen Method
ss	169.58	J/mol×K	NIST Webbook
tt	368.70 ± 0.02	K	NIST Webbook
tt	368.70 ± 0.02	K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cps	173.76	J/mol×K	298.15	NIST Webbook
hsubt	57.00	kJ/mol	331.50	NIST Webbook
hsubt	56.90 ± 0.80	kJ/mol	318.00	NIST Webbook

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C75229&Units=SI

Legend

cps:	Solid phase heat capacity
hsubt:	Enthalpy of sublimation at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
ss:	Solid phase molar entropy at standard conditions
tt:	Triple Point Temperature