Boric acid

Other names:	Ant flip
	B(OH)3
	Basilit B
	Boracic acid
	Boric acid (BH3O3)
	Boric acid (H3BO3)
	Borofax
	Boron hydroxide
	Boron trihydroxide
	Borsaure
	Dr.'s 1 Flea Terminator DF
	Dr.'s 1 Flea Terminator DFPBO
	Dr.'s 1 Flea Terminator DT
	Dr.'s 1 Flea Terminator DTPBO
	Flea Prufe
	H3-BO3
	Homberg's salt
	NCI-C56417
	NSC 81726
	Orthoboric acid
	Orthoboric acid (B(OH)3)
	Super Flea Eliminator
	Three elephant
	Trihydroxyborane
Inchi:	InChI=1S/BH3O3/c2-1(3)4/h2-4H
InchiKey:	KGBXLFKZBHKPEV-UHFFFAOYSA-N
Formula:	BH3O3
SMILES:	OB(O)O
Mol. weight [g/mol]:	61.83
CAS:	10043-35-3

Physical Properties

Property code	Value	Unit	Source
affp	728.10	kJ/mol	NIST Webbook
basg	698.40	kJ/mol	NIST Webbook
hfs	-1094.80 ± 0.80	kJ/mol	NIST Webbook

log10ws	3.14		Crippen Method
logp	-2.052		Crippen Method
ss	89.95 ± 0.60	J/mol×K	NIST Webbook

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
hsubt	174.10 ± 4.70	kJ/mol	344.50	NIST Webbook

Sources

Hydrothermal synthesis, characterization and thermochemistry of Ca2[B2O4(OH)2]*6H2O:	https://www.doi.org/10.1016/j.tca.2005.05.018
Thermochemistry of two lead borates, Pb(BO2)2*H2O and PbB4O7*4H2O:	https://www.doi.org/10.1016/j.tca.2010.09.012
Ionization of boric acid in water from 298 K to 623 K by AC conductivity and Raman spectroscopy:	https://www.doi.org/10.1016/j.jct.2016.11.007
Synthesis and the standard molar enthalpy of formation of SrB4O7*3H2O:	https://www.doi.org/10.1016/j.tca.2008.02.014
Thermodynamic properties of K2Sr[B4O5(OH)4]2*10H2O:	https://www.doi.org/10.1016/j.tca.2007.03.007
Thermochemistry of NaRb[B4O5(OH)4]*4H2O:	https://www.doi.org/10.1016/j.tca.2006.05.001
Standard Molar Enthalpies of Formation for the Two Mixed Alkali–Alkaline Earth Metal Borates of SrBaB9O15 and NaSaB9O15:	https://www.doi.org/10.1016/j.tca.2013.04.009
Thermodynamic modelling of the solubility of boric acid in the systems boric acid + lithium sulfate + water and boric acid + sodium sulfate + water at 293.15 K to 313.15 K:	https://www.doi.org/10.1016/j.fluid.2015.04.012
Standard molar enthalpy of formation of Ca2[B4O7(OH)2]:	https://www.doi.org/10.1016/j.tca.2005.03.010
Synthesis and thermochemistry of two zinc borates, Zn2B6O11*7H2O and ZnSB10O18*14H2O:	https://www.doi.org/10.1016/j.tca.2008.11.013
Thermochemistry of dicesium calcium tetraborate octahydrate:	https://www.doi.org/10.1016/j.tca.2006.05.020
Synthesis and thermochemistry of SrB2O4*2.5H2O and SrB6O10*5H2O:	https://www.doi.org/10.1016/j.tca.2007.07.010
Thermochemistry of triimidazolium nonaborate:	https://www.doi.org/10.1016/j.tca.2005.07.010
Thermochemistry of hexamethylenetetramine pentaborate:	https://www.doi.org/10.1016/j.tca.2005.08.021
Solubility, Density, Refractive Index, Viscosity, and Electrical Conductivity of Boric Acid + Lithium Sulfate + Water System at (293.15, 298.15, 303.15, 308.15, and 313.15) K:	https://www.doi.org/10.1021/je400086a
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C10043353&Units=SI
Synthesis, characterization and thermodynamic properties of Na2Sr[B4O5(OH)4]*4H2O:	https://www.doi.org/10.1016/j.tca.2008.11.003
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Thermochemistry of Potassium Strontium Tetraborate Decahydrated:	https://www.doi.org/10.1016/j.tca.2007.08.004
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Thermochemistry of hydrated ammonium borates:	https://www.doi.org/10.1016/j.tca.2004.04.027
Synthesis and thermochemistry of SrB2O4*4H2O and SrB2O4:	https://www.doi.org/10.1016/j.tca.2006.05.018

Legend

affp:	Proton affinity
basg:	Gas basicity
hfs:	Solid phase enthalpy of formation at standard conditions
hsubt:	Enthalpy of sublimation at a given temperature
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
ss:	Solid phase molar entropy at standard conditions