Boron tribromide

Other names:	TRIBROMO BORANE
	TRONA
Inchi:	InChI=1S/BBr3/c2-1(3)4
InchiKey:	ILAHWRKJUDSMFH-UHFFFAOYSA-N
Formula:	BBr3
SMILES:	BrB(Br)Br
Mol. weight [g/mol]:	250.52
CAS:	10294-33-4

Physical Properties

Property code	Value	Unit	Source
dm	0.00	debye	KDB
gf	-231.20	kJ/mol	KDB
hf	-204.30	kJ/mol	KDB
ie	10.51 ± 0.02	eV	NIST Webbook
log10ws	-0.37		Crippen Method
logp	2.156		Crippen Method
rhoc	899.38 ± 20.04	kg/m3	NIST Webbook
tb	364.00	K	KDB
tc	581.00	K	KDB
tc	573.15 ± 2.50	K	NIST Webbook
tf	228.00	K	KDB
tf	226.15 ± 1.50	K	NIST Webbook
vc	0.272	m3/kmol	KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
rhol	2643.00	kg/m3	291.00	KDB

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.31446e+01
Coeff. B	-2.56646e+03
Coeff. C	-6.31400e+01
Temperature range (K), min.	228.15
Temperature range (K), max.	364.15

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C10294334&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
KDB:	https://www.cheric.org/files/research/kdb/mol/mol1892.mol

Legend

dm:	Dipole Moment
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
pvap:	Vapor pressure
rhoc:	Critical density
rhol:	Liquid Density
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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