

Boron triiodide

Other names:	BI3 BORON FLUORIDE Borane, triiodo- TRIIODOBORANE
Inchi:	InChI=1S/BI3/c2-1(3)4
InchiKey:	YMEKEHSRPZAOGO-UHFFFAOYSA-N
Formula:	BI3
SMILES:	IB(I)I
Mol. weight [g/mol]:	391.52
CAS:	13517-10-7

Physical Properties

Property code	Value	Unit	Source
gf	20.89	kJ/mol	KDB
hf	71.18	kJ/mol	KDB
ie	9.25 ± 0.03	eV	NIST Webbook
log10ws	-1.92		Crippen Method
logp	2.276		Crippen Method
tb	483.00	K	KDB
tc	773.00	K	KDB
tf	316.00	K	KDB
vc	0.356	m3/kmol	KDB

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
rhoI	3350.00	kg/m3	323.00	KDB

Correlations

Information

Value

Property code	pvap
Equation	$\ln(P_{vp}) = A + B/(T + C)$
Coeff. A	1.39574e+01
Coeff. B	-3.91033e+03
Coeff. C	-6.25700e+01
Temperature range (K), min.	316.15
Temperature range (K), max.	473.15

Sources

KDB:	https://www.thermochimica.org/files/research/kdb/mol/mol1895.mol
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13517107&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/ci9903071
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws

Legend

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
rho:	Liquid Density
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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