

Hypobromous acid

Inchi:	InChI=1S/BrHO/c1-2/h2H
InchiKey:	CUILPNURFADTPE-UHFFFAOYSA-N
Formula:	BrHO
SMILES:	OBr
Mol. weight [g/mol]:	96.91
CAS:	13517-11-8

Physical Properties

Property code	Value	Unit	Source
gf	-173.38	kJ/mol	Joback Method
hf	-169.23	kJ/mol	Joback Method
hfus	5.13	kJ/mol	Joback Method
hvap	38.71	kJ/mol	Joback Method
ie	10.62 ± 0.04	eV	NIST Webbook
ie	10.64 ± 0.00	eV	NIST Webbook
ie	10.64 ± 0.01	eV	NIST Webbook
ie	10.65 ± 0.01	eV	NIST Webbook
log10ws	-0.51		Crippen Method
logp	0.289		Crippen Method
mcvol	34.230	ml/mol	McGowan Method
pc	8950.56	kPa	Joback Method
tb	357.74	K	Joback Method
tc	541.45	K	Joback Method
tf	210.38	K	Joback Method
vc	0.117	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	35.07	J/mol×K	357.74	Joback Method
cpg	39.20	J/mol×K	510.84	Joback Method
cpg	38.50	J/mol×K	480.22	Joback Method
cpg	37.74	J/mol×K	449.60	Joback Method
cpg	36.93	J/mol×K	418.98	Joback Method

cpg	36.04	J/mol×K	388.36	Joback Method
cpg	39.84	J/mol×K	541.45	Joback Method
dvisc	0.0007084	Paxs	357.74	Joback Method
dvisc	0.0011413	Paxs	333.18	Joback Method
dvisc	0.0019839	Paxs	308.62	Joback Method
dvisc	0.0037946	Paxs	284.06	Joback Method
dvisc	0.0082056	Paxs	259.50	Joback Method
dvisc	0.0208493	Paxs	234.94	Joback Method
dvisc	0.0658608	Paxs	210.38	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13517118&Units=SI

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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