

bromine chloride

Other names:	Bromine monochloride
Inchi:	InChI=1S/BrCl/c1-2
InchiKey:	CODNYICXDISAEA-UHFFFAOYSA-N
Formula:	BrCl
SMILES:	ClBr
Mol. weight [g/mol]:	115.36
CAS:	13863-41-7

Physical Properties

Property code	Value	Unit	Source
gf	-48.49	kJ/mol	Joback Method
hf	-32.74	kJ/mol	Joback Method
hfus	5.24	kJ/mol	Joback Method
hvap	26.41	kJ/mol	Joback Method
ie	11.10 ± 0.20	eV	NIST Webbook
ie	11.01	eV	NIST Webbook
log10ws	-1.40		Crippen Method
logp	1.535		Crippen Method
mcvol	40.600	ml/mol	McGowan Method
pc	7109.36	kPa	Joback Method
tb	302.99	K	Joback Method
tc	499.65	K	Joback Method
tf	179.48	K	Joback Method
vc	0.146	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	33.40	J/mol×K	302.99	Joback Method
cpg	35.18	J/mol×K	466.88	Joback Method
cpg	34.95	J/mol×K	434.10	Joback Method
cpg	34.66	J/mol×K	401.32	Joback Method
cpg	34.32	J/mol×K	368.54	Joback Method
cpg	33.90	J/mol×K	335.77	Joback Method

cpg	35.36	J/mol×K	499.65	Joback Method
dvisc	0.0004197	Pa×s	302.99	Joback Method
dvisc	0.0005047	Pa×s	282.40	Joback Method
dvisc	0.0006247	Pa×s	261.82	Joback Method
dvisc	0.0008020	Pa×s	241.24	Joback Method
dvisc	0.0010787	Pa×s	220.65	Joback Method
dvisc	0.0015422	Pa×s	200.07	Joback Method
dvisc	0.0023933	Pa×s	179.48	Joback Method

Sources

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=C13863417&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.cheméo.com/doc/models/crippen_log10ws

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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