Bromine monofluoride

Inchi: InChI=1S/BrF/c1-2
InchiKey: MZJUGRUTVANEDW-UHFFFAOYSA-N
Formula: BrF
SMILES: FBr
Mol. weight [g/mol]: 98.90
CAS: 13863-59-7

Physical Properties

Property code	Value	Unit	Source
gf	-231.37	kJ/mol	Joback Method
hf	-213.11	kJ/mol	Joback Method
hfus	4.12	kJ/mol	Joback Method
hvap	21.21	kJ/mol	Joback Method
log10ws	-1.10		Crippen Method
logp	1.266		Crippen Method
mcvol	30.130	ml/mol	McGowan Method
pc	7014.41	kPa	Joback Method
tb	264.83	K	Joback Method
tc	436.33	K	Joback Method
tf	150.15	K	Joback Method
vc	0.116	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	27.46	J/mol×K	264.83	Joback Method
cpg	28.17	J/mol×K	293.41	Joback Method
cpg	28.81	J/mol×K	322.00	Joback Method
cpg	29.39	J/mol×K	350.58	Joback Method
cpg	29.92	J/mol×K	379.16	Joback Method
cpg	30.40	J/mol×K	407.75	Joback Method
cpg	30.83	J/mol×K	436.33	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13863597&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cpg:	Ideal gas heat capacity
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
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