1-Bromo-2,2-difluoroethylene

Other names: Ethene, 2-bromo-1,1-difluoro-
2-Bromo-1,1-difluoroethene
2-bromo-1,1-difluoroethylene
Inchi: InChI=1S/C2HBrF2/c3-1-2(4)5/h1H
InchiKey: QZGNGBWAMYFUST-UHFFFAOYSA-N
Formula: C2HBrF2
SMILES: FC(F)=CBr
Mol. weight [g/mol]: 142.93
CAS: 359-08-0

Physical Properties

Property code	Value	Unit	Source
gf	-337.67	kJ/mol	Joback Method
hf	-343.07	kJ/mol	Joback Method
hfus	11.27	kJ/mol	Joback Method
hvap	24.89	kJ/mol	Joback Method
log10ws	-2.14		Crippen Method
logp	2.119		Crippen Method
mcvol	55.780	ml/mol	McGowan Method
pc	5296.96	kPa	Joback Method
tb	279.00	K	NIST Webbook
tc	491.71	K	Joback Method
tf	154.24	K	Joback Method
vc	0.227	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	70.24	J/mol×K	313.90	Joback Method
cpg	74.07	J/mol×K	343.53	Joback Method
cpg	77.61	J/mol×K	373.17	Joback Method
cpg	80.87	J/mol×K	402.80	Joback Method
cpg	83.89	J/mol×K	432.44	Joback Method
cpg	86.66	J/mol×K	462.07	Joback Method

cpg	89.21	J/mol×K	491.71	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C359080&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
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772

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