Propane, 1,2-bis(difluoroamino)-2-methyl-

Other names:	1,2-Bis(difluoramino)isobutane
	1-Methyl-2,3-bis(difluoroamino)propane
Inchi:	InChI=1S/C4H8F4N2/c1-4(2,10(7)8)3-9(5)6/h3H2,1-2H3
InchiKey:	PIGMBPMRYUUGBD-UHFFFAOYSA-N
Formula:	C4H8F4N2
SMILES:	CC(C)(CN(F)F)N(F)F
Mol. weight [g/mol]:	160.11
CAS:	16063-24-4

Physical Properties

Property code	Value	Unit	Source
gf	-572.04	kJ/mol	Joback Method
hf	-784.02	kJ/mol	Joback Method
hfl	-260.30	kJ/mol	NIST Webbook
hfus	17.06	kJ/mol	Joback Method
hvap	24.02	kJ/mol	Joback Method
log10ws	-2.12		Crippen Method
logp	1.907		Crippen Method
mcvol	94.260	ml/mol	McGowan Method
pc	3202.78	kPa	Joback Method
tb	309.65	K	Joback Method
tc	446.21	K	Joback Method
tf	204.56	K	Joback Method
vc	0.356	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	170.08	J/mol×K	309.65	Joback Method
cpg	180.25	J/mol×K	332.41	Joback Method
cpg	189.95	J/mol×K	355.17	Joback Method
cpg	199.20	J/mol×K	377.93	Joback Method
cpg	208.01	J/mol×K	400.69	Joback Method
cpg	216.39	J/mol×K	423.45	Joback Method

cpg	224.36	J/mol×K	446.21	Joback Method

Sources

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=C16063244&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

Legend

cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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