Chlorodifluoroamine

Other names:	Nitrogen chloride fluoride (nclf2)
	Difluorochloroamine
	Chlorodifluoramine
	Chlorodifluoroammonia
	Nitrogen chloride difluoride
Inchi:	InChI=1S/ClF2N/c1-4(2)3
InchiKey:	ZIOUHCMXEAFYSA-UHFFFAOYSA-N
Formula:	ClF2N
SMILES:	FN(F)Cl
Mol. weight [g/mol]:	87.46
CAS:	13637-87-1

Physical Properties

Property code	Value	Unit	Source
gf	-341.65	kJ/mol	Joback Method
hf	-383.76	kJ/mol	Joback Method
hfus	9.13	kJ/mol	Joback Method
hvap	20.39	kJ/mol	Joback Method
log10ws	-1.22		Crippen Method
logp	1.211		Crippen Method
mcvol	36.620	ml/mol	McGowan Method
pc	5511.44	kPa	Joback Method
tb	247.81	K	Joback Method
tc	393.72	K	Joback Method
tf	153.33	K	Joback Method
vc	0.139	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	48.43	J/mol×K	247.81	Joback Method
cpg	50.71	J/mol×K	272.13	Joback Method
cpg	52.87	J/mol×K	296.45	Joback Method
cpg	54.90	J/mol×K	320.77	Joback Method

cpg	56.82	J/mol×K	345.08	Joback Method
cpg	58.63	J/mol×K	369.40	Joback Method
cpg	60.34	J/mol×K	393.72	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C13637871&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