Heptafluoromethanetriamine

Other names: Tris(difluoroamino)fluoromethane
Inchi: InChI=1S/CF7N3/c2-1(9(3)4,10(5)6)11(7)8
InchiKey: FTSJYZOTGVOFJQ-UHFFFAOYSA-N
Formula: CF7N3
SMILES: FN(F)C(F)(N(F)F)N(F)F
Mol. weight [g/mol]: 187.02
CAS: 14362-68-6

Physical Properties

Property code	Value	Unit	Source
gf	-1070.95	kJ/mol	Joback Method
hf	-200.10 ± 2.80	kJ/mol	NIST Webbook
hfus	21.56	kJ/mol	Joback Method
hvap	16.93	kJ/mol	Joback Method
log10ws	-2.46		Crippen Method
logp	1.780		Crippen Method
mcvol	67.280	ml/mol	McGowan Method
pc	3829.28	kPa	Joback Method
tb	251.26	K	Joback Method
tc	360.94	K	Joback Method
tf	204.99	K	Joback Method
vc	0.261	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	120.85	J/mol×K	251.26	Joback Method
cpg	127.86	J/mol×K	269.54	Joback Method
cpg	134.55	J/mol×K	287.82	Joback Method
cpg	140.93	J/mol×K	306.10	Joback Method
cpg	147.02	J/mol×K	324.38	Joback Method
cpg	152.81	J/mol×K	342.66	Joback Method
cpg	158.31	J/mol×K	360.94	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14362686&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