1,2-Dichlorohexafluoropropane

Other names:	1,2-Dichloro-1,1,2,3,3,3-hexafluoropropane Propane, 1,2-dichloro-1,1,2,3,3,3-hexafluoro- Freon 216 Propane, 1,2-dichlorohexafluoro- Ucon 216 1,1,1,2,3,3-Hexafluoro-2,3-dichloropropane 1,2-Dichloroperfluoropropane
Inchi:	InChI=1S/C3Cl2F6/c4-1(6,2(5,7)8)3(9,10)11
InchiKey:	JSEUKVSKOHVLOV-UHFFFAOYSA-N
Formula:	C3Cl2F6
SMILES:	FC(F)(F)C(F)(Cl)C(F)(F)Cl
Mol. weight [g/mol]:	220.93
CAS:	661-97-2

Physical Properties

Property code	Value	Unit	Source
chl	-925.60 ± 2.00	kJ/mol	NIST Webbook
gf	-1209.82	kJ/mol	Joback Method
hf	-1349.00 ± 4.40	kJ/mol	NIST Webbook
hfl	-1376.00 ± 4.40	kJ/mol	NIST Webbook
hfus	8.16	kJ/mol	Joback Method
hvap	26.90 ± 0.10	kJ/mol	NIST Webbook
hvap	27.30	kJ/mol	NIST Webbook
log10ws	-3.32		Crippen Method
logp	3.285		Crippen Method
mcvol	88.230	ml/mol	McGowan Method
pc	3110.57	kPa	Joback Method
tb	308.00	K	NIST Webbook
tb	307.30	K	NIST Webbook
tc	446.00	K	NIST Webbook
tf	194.21	K	Joback Method
tt	145.50 ± 0.60	K	NIST Webbook
vc	0.377	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	182.84	J/mol×K	407.51	Joback Method
cpg	189.07	J/mol×K	433.74	Joback Method
cpg	194.73	J/mol×K	459.97	Joback Method
cpg	160.41	J/mol×K	328.83	Joback Method
cpg	168.54	J/mol×K	355.06	Joback Method
cpg	176.01	J/mol×K	381.29	Joback Method
cpg	199.85	J/mol×K	486.20	Joback Method
hvapt	26.28	kJ/mol	307.30	NIST Webbook
hvapt	28.10	kJ/mol	301.50	NIST Webbook
hvapt	25.90 ± 0.10	kJ/mol	313.00	NIST Webbook

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C661972&Units=SI

Legend

chl: Standard liquid enthalpy of combustion
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
hvapt: Enthalpy of vaporization at a given temperature
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
tt:	Triple Point Temperature
vc:	Critical Volume