1-Propene, 2-chloro-1,1,3,3,3-pentafluoro-

Other names: Propene, 2-chloropentafluoro-
2-Chloropentafluoro-1-propene
2-Chloropentafluoropropene
Inchi: InChI=1S/C3ClF5/c4-1(2(5)6)3(7,8)9
InchiKey: YTCHAEAIYHLXBK-UHFFFAOYSA-N
Formula: C3ClF5
SMILES: FC(F)=C(Cl)C(F)(F)F
Mol. weight [g/mol]: 166.48
CAS: 2804-50-4

Physical Properties

Property code	Value	Unit	Source
gf	-945.64	kJ/mol	Joback Method
hf	-1012.65	kJ/mol	Joback Method
hfus	13.29	kJ/mol	Joback Method
hvap	21.39	kJ/mol	Joback Method
log10ws	-2.94		Crippen Method
logp	2.896		Crippen Method
mcvol	69.920	ml/mol	McGowan Method
pc	3513.74	kPa	Joback Method
tb	280.00	K	NIST Webbook
tb	278.50 ± 0.50	K	NIST Webbook
tc	453.20	K	Joback Method
tf	125.86	K	Joback Method
vc	0.314	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	115.95	J/mol×K	302.51	Joback Method
cpg	121.95	J/mol×K	327.62	Joback Method
cpg	127.54	J/mol×K	352.74	Joback Method
cpg	132.75	J/mol×K	377.85	Joback Method
cpg	137.58	J/mol×K	402.97	Joback Method

cpg	142.07	J/mol×K	428.08	Joback Method
cpg	146.22	J/mol×K	453.20	Joback Method

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=C2804504&Units=SI

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