1-Butene, 1,1,2,3,3,4,4,4-octafluoro-

Other names: Perfluoro-1-butene
Inchi: InChI=1S/C4F8/c5-1(2(6)7)3(8,9)4(10,11)12
InchiKey: ZVJOQYFQSQJDDX-UHFFFAOYSA-N
Formula: C4F8
SMILES: FC(F)=C(F)C(F)(F)C(F)(F)F
Mol. weight [g/mol]: 200.03
CAS: 357-26-6

Physical Properties

Property code	Value	Unit	Source
gf	-1506.88	kJ/mol	Joback Method
hf	-1614.63	kJ/mol	Joback Method
hfus	13.51	kJ/mol	Joback Method
hvap	15.49	kJ/mol	Joback Method
log10ws	-3.37		Crippen Method
logp	3.262		Crippen Method
mcvol	77.080	ml/mol	McGowan Method
pc	2884.30	kPa	Joback Method
tb	278.00	K	NIST Webbook
tb	274.00 ± 2.00	K	NIST Webbook
tc	409.82	K	Joback Method
tf	111.40	K	Joback Method
vc	0.363	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	143.06	J/mol×K	282.54	Joback Method
cpg	151.05	J/mol×K	303.75	Joback Method
cpg	158.59	J/mol×K	324.97	Joback Method
cpg	165.70	J/mol×K	346.18	Joback Method
cpg	172.38	J/mol×K	367.39	Joback Method
cpg	178.65	J/mol×K	388.60	Joback Method
cpg	184.53	J/mol×K	409.82	Joback Method

hvapt	28.90	kJ/mol	241.00	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=C357266&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
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
vc:	Critical Volume