1-Propene, 1,2-dichloro-1,3,3,3-tetrafluoro-

Other names: Propene, 1,2-dichlorotetrafluoro-
1,2-Dichloro-1,3,3,3-tetrafluoropropene-1
Inchi: InChI=1S/C3Cl2F4/c4-1(2(5)6)3(7,8)9/b2-1-
InchiKey: BJDGSGIFQVXSGD-UPHRSURJSA-N
Formula: C3Cl2F4
SMILES: FC(Cl)=C(Cl)C(F)(F)F
Mol. weight [g/mol]: 182.93
CAS: 431-53-8

Physical Properties

Property code	Value	Unit	Source
gf	-762.76	kJ/mol	Joback Method
hf	-832.28	kJ/mol	Joback Method
hfus	14.41	kJ/mol	Joback Method
hvap	26.60	kJ/mol	Joback Method
log10ws	-3.24		Crippen Method
logp	3.165		Crippen Method
mcvol	80.390	ml/mol	McGowan Method
pc	3547.31	kPa	Joback Method
tb	340.67	K	Joback Method
tc	510.72	K	Joback Method
tf	155.19	K	Joback Method
vc	0.344	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	129.67	J/mol×K	340.67	Joback Method
cpg	135.54	J/mol×K	369.01	Joback Method
cpg	140.93	J/mol×K	397.35	Joback Method
cpg	145.87	J/mol×K	425.70	Joback Method
cpg	150.38	J/mol×K	454.04	Joback Method
cpg	154.48	J/mol×K	482.38	Joback Method
cpg	158.21	J/mol×K	510.72	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=C431538&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