Propene, 1,2-dichloro-3,3,3-trifluoro-

Other names: 1,2-Dichloro-3,3,3-trifluoro propene-1
Inchi: InChI=1S/C3HCl2F3/c4-1-2(5)3(6,7)8/h1H/b2-1-
InchiKey: ZHJBJVPTRJNNIK-UPHRSURJSA-N
Formula: C3HCl2F3
SMILES: FC(F)(F)C(Cl)=CCl
Mol. weight [g/mol]: 164.94
CAS: 431-27-6

Physical Properties

Property code	Value	Unit	Source
gf	-559.40	kJ/mol	Joback Method
hf	-626.38	kJ/mol	Joback Method
hfus	12.64	kJ/mol	Joback Method
hvap	27.33	kJ/mol	Joback Method
log10ws	-2.89		Crippen Method
logp	2.868		Crippen Method
mcvol	78.620	ml/mol	McGowan Method
pc	3722.56	kPa	Joback Method
tb	341.52	K	Joback Method
tc	518.02	K	Joback Method
tf	168.56	K	Joback Method
vc	0.326	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	121.34	J/mol×K	341.52	Joback Method
cpg	127.38	J/mol×K	370.94	Joback Method
cpg	132.91	J/mol×K	400.35	Joback Method
cpg	137.98	J/mol×K	429.77	Joback Method
cpg	142.61	J/mol×K	459.19	Joback Method
cpg	146.82	J/mol×K	488.61	Joback Method
cpg	150.65	J/mol×K	518.02	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C431276&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

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