1,1,1,2-tetrachloro-2-fluoroethane

Inchi: InChI=1S/C2HCl4F/c3-1(7)2(4,5)6/h1H
InchiKey: SRCNPEKLEHSVCL-UHFFFAOYSA-N
Formula: C2HCl4F
SMILES: FC(Cl)C(Cl)(Cl)Cl
Mol. weight [g/mol]: 185.84
CAS: 354-11-0

Physical Properties

Property code	Value	Unit	Source
gf	-276.17	kJ/mol	Joback Method
hf	-357.71	kJ/mol	Joback Method
hfus	9.87	kJ/mol	Joback Method
hvap	35.09	kJ/mol	Joback Method
log10ws	-2.83		Crippen Method
logp	2.891		Crippen Method
mcvol	89.770	ml/mol	McGowan Method
pc	4026.13	kPa	Joback Method
tb	390.48	K	Joback Method
tc	599.15	K	Joback Method
tf	219.99	K	Joback Method
vc	0.344	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	127.79	J/mol×K	390.48	Joback Method
cpg	132.49	J/mol×K	425.26	Joback Method
cpg	136.72	J/mol×K	460.04	Joback Method
cpg	140.49	J/mol×K	494.81	Joback Method
cpg	143.85	J/mol×K	529.59	Joback Method
cpg	146.83	J/mol×K	564.37	Joback Method
cpg	149.46	J/mol×K	599.15	Joback Method

Sources

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=C354110&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l

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