1,2-Dichloro-1-fluoroethylene

Other names:	Ethene, 1,2-dichloro-1-fluoro-
	FC-1121
Inchi:	InChI=1S/C2HCl2F/c3-1-2(4)5/h1H/b2-1+
InchiKey:	LWDGFGTYBDRKHU-OWOJBTEDSA-N
Formula:	C2HCl2F
SMILES:	FC(Cl)=CCl
Mol. weight [g/mol]:	114.93
CAS:	430-58-0

Physical Properties

Property code	Value	Unit	Source
gf	-181.04	kJ/mol	Joback Method
hf	-204.77	kJ/mol	Joback Method
hfus	11.30	kJ/mol	Joback Method
hvap	28.04	kJ/mol	Joback Method
log10ws	-2.16		Crippen Method
logp	2.232		Crippen Method
mcvol	60.990	ml/mol	McGowan Method
pc	4615.13	kPa	Joback Method
tb	308.00	K	NIST Webbook
tc	508.78	K	Joback Method
tf	153.69	K	Joback Method
vc	0.244	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	75.40	J/mol×K	323.33	Joback Method
cpg	78.92	J/mol×K	354.24	Joback Method
cpg	82.17	J/mol×K	385.15	Joback Method
cpg	85.18	J/mol×K	416.05	Joback Method
cpg	87.96	J/mol×K	446.96	Joback Method
cpg	90.51	J/mol×K	477.87	Joback Method
cpg	92.87	J/mol×K	508.78	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=C430580&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