Ethene, 1-chloro-2-fluoro-

Other names: Ethylene, 1-chloro-2-fluoro-
1-Chloro-2-fluoroethylene
1-Fluoro-2-chloroethylene
Inchi: InChI=1S/C2H2ClF/c3-1-2-4/h1-2H
InchiKey: MTKHTBWXSHYCGS-UHFFFAOYSA-N
Formula: C2H2ClF
SMILES: FC=CCl
Mol. weight [g/mol]: 80.49
CAS: 460-16-2

Physical Properties

Property code	Value	Unit	Source
gf	-160.56	kJ/mol	Joback Method
hf	-179.24	kJ/mol	Joback Method
hfus	8.41	kJ/mol	Joback Method
hvap	23.57	kJ/mol	Joback Method
log10ws	-1.51		Crippen Method
logp	1.666		Crippen Method
mcvol	48.750	ml/mol	McGowan Method
pc	4822.53	kPa	Joback Method
tb	283.00	K	NIST Webbook
tc	455.81	K	Joback Method
tf	137.73	K	Joback Method
vc	0.195	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	57.27	J/mol×K	286.02	Joback Method
cpg	60.92	J/mol×K	314.32	Joback Method
cpg	64.36	J/mol×K	342.62	Joback Method
cpg	67.59	J/mol×K	370.92	Joback Method
cpg	70.63	J/mol×K	399.22	Joback Method
cpg	73.48	J/mol×K	427.51	Joback Method

cpg	76.15	J/mol×K	455.81	Joback Method

Sources

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=C460162&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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