

Ethene, trichlorofluoro-

Other names:	Ethylene, trichlorofluoro- Trichlorofluoroethylene CFCl=CCl2 Ethylene, fluorotrichloro-
Inchi:	InChI=1S/C2Cl3F/c3-1(4)2(5)6
InchiKey:	LFMIQNJMJJKICW-UHFFFAOYSA-N
Formula:	C2Cl3F
SMILES:	FC(Cl)=C(Cl)Cl
Mol. weight [g/mol]:	149.38
CAS:	359-29-5

Physical Properties

Property code	Value	Unit	Source
gf	-201.52	kJ/mol	Joback Method
hf	-230.30	kJ/mol	Joback Method
hfus	14.19	kJ/mol	Joback Method
hvap	32.50	kJ/mol	Joback Method
log10ws	-2.81		Crippen Method
logp	2.799		Crippen Method
mcvol	73.230	ml/mol	McGowan Method
pc	4420.84	kPa	Joback Method
tb	344.20	K	NIST Webbook
tb	344.00	K	NIST Webbook
tc	560.58	K	Joback Method
tf	169.65	K	Joback Method
vc	0.294	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	92.78	J/molxK	360.64	Joback Method
cpg	96.03	J/molxK	393.96	Joback Method
cpg	98.98	J/molxK	427.29	Joback Method
cpg	101.64	J/molxK	460.61	Joback Method

cpg	104.03	J/mol×K	493.93	Joback Method
cpg	106.19	J/mol×K	527.26	Joback Method
cpg	108.13	J/mol×K	560.58	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=C359295&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307I

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

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