1-Propene, 1,1,2-trichloro-

Other names: 1,1,2-Trichloro-1-propene
1,1,2-Trichloropropene
Propene, 1,1,2-trichloro-
Inchi: InChI=1S/C3H3Cl3/c1-2(4)3(5)6/h1H3
InchiKey: LIPPKMMVZOHCIF-UHFFFAOYSA-N
Formula: C3H3Cl3
SMILES: CC(Cl)=C(Cl)Cl
Mol. weight [g/mol]: 145.41
CAS: 21400-25-9

Physical Properties

Property code	Value	Unit	Source
gf	1.71	kJ/mol	Joback Method
hf	-54.83	kJ/mol	Joback Method
hfus	13.70	kJ/mol	Joback Method
hvap	35.55	kJ/mol	Joback Method
log10ws	-2.88		Crippen Method
logp	2.892		Crippen Method
mcvol	85.550	ml/mol	McGowan Method
pc	4135.61	kPa	Joback Method
tb	384.25	K	Joback Method
tc	594.98	K	Joback Method
tf	180.33	K	Joback Method
vc	0.333	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	114.84	J/mol×K	384.25	Joback Method
cpg	119.98	J/mol×K	419.37	Joback Method
cpg	124.73	J/mol×K	454.49	Joback Method
cpg	129.11	J/mol×K	489.61	Joback Method
cpg	133.15	J/mol×K	524.73	Joback Method
cpg	136.88	J/mol×K	559.86	Joback Method

cpg	140.31	J/mol×K	594.98	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.37927e+01
Coeff. B	-3.17411e+03
Coeff. C	-4.98900e+01
Temperature range (K), min.	284.92
Temperature range (K), max.	424.14

Sources

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

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C21400259&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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
pvap: Vapor pressure
tb: Normal Boiling Point Temperature

tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume