1-Propene, 1,3-dichloro-, (E)-

Other names: (E)-1,3-Dichloropropene
Propene, 1,3-dichloro-, (E)-
trans-1,3-Dichloro-1-Propene
trans-1,3-Dichloropropene
trans-1,3-Dichloropropylene
Inchi: InChI=1S/C3H4Cl2/c4-2-1-3-5/h1-2H,3H2/b2-1+
InchiKey: UOORRWUZONOOLO-OWOJBTEDSA-N
Formula: C3H4Cl2
SMILES: ClC=CCCl
Mol. weight [g/mol]: 110.97
CAS: 10061-02-6

Physical Properties

Property code	Value	Unit	Source
gf	30.74	kJ/mol	Joback Method
hf	-19.51	kJ/mol	Joback Method
hfus	12.12	kJ/mol	Joback Method
hvap	31.00	kJ/mol	Joback Method
log10ws	-1.73		Crippen Method
logp	1.978		Crippen Method
mcvol	73.310	ml/mol	McGowan Method
pc	4283.05	kPa	Joback Method
rinpol	784.00		NIST Webbook
rinpol	742.00		NIST Webbook
ripol	1112.00		NIST Webbook
ripol	1112.00		NIST Webbook
ripol	1112.00		NIST Webbook
tb	385.20	K	NIST Webbook
tb	384.00 ± 2.00	K	NIST Webbook
tc	539.68	K	Joback Method
tf	178.33	K	Joback Method
vc	0.281	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	95.61	J/mol×K	347.06	Joback Method
cpg	100.95	J/mol×K	379.16	Joback Method
cpg	105.95	J/mol×K	411.27	Joback Method
cpg	110.64	J/mol×K	443.37	Joback Method
cpg	115.03	J/mol×K	475.47	Joback Method
cpg	119.14	J/mol×K	507.58	Joback Method
cpg	122.99	J/mol×K	539.68	Joback Method
dvisc	0.0033771	Pa×s	178.33	Joback Method
dvisc	0.0016830	Pa×s	206.45	Joback Method
dvisc	0.0009911	Pa×s	234.57	Joback Method
dvisc	0.0006537	Pa×s	262.69	Joback Method
dvisc	0.0004674	Pa×s	290.82	Joback Method
dvisc	0.0003545	Pa×s	318.94	Joback Method
dvisc	0.0002812	Pa×s	347.06	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.85338e+01
Coeff. B	-4.35898e+03
Coeff. C	-4.82220e+01
Temperature range (K), min.	287.12
Temperature range (K), max.	377.89

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=C10061026&Units=SI

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
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
rinpol:	Non-polar retention indices
ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume