1-Propene, 3,3-dichloro-

Other names:	1,1-Dichloro-3-propene
	3,3-Dichloro-1-propene
	3,3-Dichloropropene
	3,3-Dichloropropylene
	Propene, 3,3-dichloro-
Inchi:	InChI=1S/C3H4Cl2/c1-2-3(4)5/h2-3H,1H2
InchiKey:	VRTNIWBNFSHDEB-UHFFFAOYSA-N
Formula:	C3H4Cl2
SMILES:	C=CC(Cl)Cl
Mol. weight [g/mol]:	110.97
CAS:	563-57-5

Physical Properties

Property code	Value	Unit	Source
gf	35.92	kJ/mol	Joback Method
hf	-16.58	kJ/mol	Joback Method
hfus	7.12	kJ/mol	Joback Method
hvap	29.98	kJ/mol	Joback Method
log10ws	-1.85		Crippen Method
logp	1.976		Crippen Method
mcvol	73.310	ml/mol	McGowan Method
pc	4271.86	kPa	Joback Method
rinpol	656.00		NIST Webbook
tb	355.15 ± 2.00	K	NIST Webbook
tc	530.20	K	Joback Method
tf	166.65	K	Joback Method
vc	0.277	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	97.63	J/mol×K	339.14	Joback Method
cpg	121.06	J/mol×K	498.35	Joback Method
cpg	116.90	J/mol×K	466.51	Joback Method

cpg	112.49	J/mol×K	434.67	Joback Method
cpg	107.81	J/mol×K	402.83	Joback Method
cpg	102.86	J/mol×K	370.98	Joback Method
cpg	124.99	J/mol×K	530.20	Joback Method
dvisc	0.0003234	Pa×s	339.14	Joback Method
dvisc	0.0004144	Pa×s	310.39	Joback Method
dvisc	0.0005586	Pa×s	281.64	Joback Method
dvisc	0.0008060	Pa×s	252.89	Joback Method
dvisc	0.0012775	Pa×s	224.15	Joback Method
dvisc	0.0023188	Pa×s	195.40	Joback Method
dvisc	0.0051701	Pa×s	166.65	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.54075e+01
Coeff. B	-3.39428e+03
Coeff. C	-4.05490e+01
Temperature range (K), min.	265.04
Temperature range (K), max.	379.93

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=C563575&Units=SI

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

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

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

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