1-Propene, 2,3-dichloro-

Other names:	1,2-Dichloro-2-propene
	2,3-DICHLOROPROPYLENE
	2,3-Dichloro-1-propene
	2,3-Dichloropropene
	2,3-Dichloropropene-(1)
	2-CHLOROALLYL CHLORIDE
	Propene, 2,3-dichloro-
Inchi:	InChI=1S/C3H4Cl2/c1-3(5)2-4/h1-2H2
InchiKey:	FALCMQXTWHPRIH-UHFFFAOYSA-N
Formula:	C3H4Cl2
SMILES:	C=C(Cl)CCl
Mol. weight [g/mol]:	110.97
CAS:	78-88-6

Physical Properties

Property code	Value	Unit	Source
chl	-1726.20	kJ/mol	NIST Webbook
gf	29.81	kJ/mol	Joback Method
hf	-21.09	kJ/mol	Joback Method
hfl	-73.47	kJ/mol	NIST Webbook
hfus	9.33	kJ/mol	Joback Method
hvap	30.45	kJ/mol	Joback Method
ie	9.82 ± 0.03	eV	NIST Webbook
log10ws	-1.73		Crippen Method
logp	1.978		Crippen Method
mcvol	73.310	ml/mol	McGowan Method
pc	4255.16	kPa	Joback Method
rinpol	684.00		NIST Webbook
rinpol	686.00		NIST Webbook
rinpol	707.00		NIST Webbook
rinpol	705.00		NIST Webbook
ripol	1066.00		NIST Webbook
ripol	1066.00		NIST Webbook
tb	367.20	K	NIST Webbook
tc	529.79	K	Joback Method
tf	167.69	K	Joback Method
vc	0.283	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	97.84	J/mol×K	339.46	Joback Method
cpg	102.90	J/mol×K	371.18	Joback Method
cpg	107.69	J/mol×K	402.90	Joback Method
cpg	112.22	J/mol×K	434.63	Joback Method
cpg	116.50	J/mol×K	466.35	Joback Method
cpg	120.54	J/mol×K	498.07	Joback Method
cpg	124.34	J/mol×K	529.79	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.50651e+01
Coeff. B	-3.38646e+03
Coeff. C	-4.30370e+01
Temperature range (K), min.	272.20
Temperature range (K), max.	390.24

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/T + C*ln(T) + D*T^2
Coeff. A	5.21947e+01
Coeff. B	-5.61113e+03
Coeff. C	-5.54617e+00
Coeff. D	3.51475e-06
Temperature range (K), min.	191.50
Temperature range (K), max.	577.00

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
KDB:	https://www.cheric.org/files/research/kdb/mol/mol1736.mol
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C78886&Units=SI
The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
KDB Vapor Pressure Data:	https://www.cheric.org/research/kdb/hcprop/showprop.php?cmpid=1736
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
ie:	Ionization energy
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