1-Propanol, 2-chloro-

Other names:	1-Hydroxy-2-chloropropane
	2-Chloro-1-propanol
	2-Chloropropanol
	2-Chloropropyl alcohol
	2-chloropropan-1-ol
	Propylene chlorohydrin
	UN 2611
	«beta»-Chloropropyl alcohol
	Â«betaÂ»-Chloropropyl alcohol
Inchi:	InChI=1S/C3H7ClO/c1-3(4)2-5/h3,5H,2H2,1H3
InchiKey:	VZIQXGLTRZLBEX-UHFFFAOYSA-N
Formula:	C3H7ClO
SMILES:	CC(Cl)CO
Mol. weight [g/mol]:	94.54
CAS:	78-89-7

Physical Properties

Property code	Value	Unit	Source
gf	-176.81	kJ/mol	Joback Method
hf	-278.50	kJ/mol	Joback Method
hfus	8.29	kJ/mol	Joback Method
hvap	42.95	kJ/mol	Joback Method
log10ws	-0.61		Crippen Method
logp	0.606		Crippen Method
mcvol	71.240	ml/mol	McGowan Method
pc	4802.50	kPa	Joback Method
rinpol	805.00		NIST Webbook
tb	397.21	K	Joback Method
tc	571.23	K	Joback Method
tf	199.31	K	Joback Method
vc	0.266	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	153.19	J/mol×K	571.23	Joback Method
cpg	148.55	J/mol×K	542.23	Joback Method
cpg	143.70	J/mol×K	513.23	Joback Method
cpg	138.64	J/mol×K	484.22	Joback Method
cpg	133.36	J/mol×K	455.22	Joback Method
cpg	127.85	J/mol×K	426.21	Joback Method
cpg	122.10	J/mol×K	397.21	Joback Method
dvisc	0.2012782	Pa×s	199.31	Joback Method
dvisc	0.0003683	Pa×s	397.21	Joback Method
dvisc	0.0006545	Pa×s	364.23	Joback Method
dvisc	0.0013040	Pa×s	331.24	Joback Method
dvisc	0.0030263	Pa×s	298.26	Joback Method
dvisc	0.0086584	Pa×s	265.28	Joback Method
dvisc	0.0333896	Pa×s	232.29	Joback Method
hvapt	45.00	kJ/mol	357.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.58479e+01
Coeff. B	-2.52607e+03
Coeff. C	-1.37968e+02
Temperature range (K), min.	296.15
Temperature range (K), max.	377.71

Sources

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
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=C78897&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
hvapt:	Enthalpy of vaporization at a given temperature
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