2,2-Dichloroethyl methyl ether

Other names:	Ethane, 1,1-dichloro-2-methoxy- 1,1-dichloro-2-methoxyethane
Inchi:	InChI=1S/C3H6Cl2O/c1-6-2-3(4)5/h3H,2H2,1H3
InchiKey:	QUCLHUUEEKVBGT-UHFFFAOYSA-N
Formula:	C3H6Cl2O
SMILES:	COCC(Cl)Cl
Mol. weight [g/mol]:	128.99
CAS:	34862-07-2

Physical Properties

Property code	Value	Unit	Source
gf	-156.92	kJ/mol	Joback Method
hf	-274.23	kJ/mol	Joback Method
hfus	9.59	kJ/mol	Joback Method
hvap	33.06	kJ/mol	Joback Method
log10ws	-1.08		Crippen Method
logp	1.436		Crippen Method
mcvol	83.480	ml/mol	McGowan Method
pc	3960.52	kPa	Joback Method
rinpol	784.90		NIST Webbook
ripol	1158.00		NIST Webbook
ripol	1158.00		NIST Webbook
tb	364.88	K	Joback Method
tc	552.39	K	Joback Method
tf	190.64	K	Joback Method
vc	0.314	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	128.94	J/mol×K	364.88	Joback Method
cpg	134.70	J/mol×K	396.13	Joback Method
cpg	140.30	J/mol×K	427.38	Joback Method
cpg	145.72	J/mol×K	458.64	Joback Method

cpg	150.96	J/mol×K	489.89	Joback Method
cpg	156.03	J/mol×K	521.14	Joback Method
cpg	160.91	J/mol×K	552.39	Joback Method
dvisc	0.0047910	Pa×s	190.64	Joback Method
dvisc	0.0022414	Pa×s	219.68	Joback Method
dvisc	0.0012522	Pa×s	248.72	Joback Method
dvisc	0.0007901	Pa×s	277.76	Joback Method
dvisc	0.0005439	Pa×s	306.80	Joback Method
dvisc	0.0003995	Pa×s	335.84	Joback Method
dvisc	0.0003081	Pa×s	364.88	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C34862072&Units=SI

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

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
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