Ethane, 2-chloro-1,1-dimethoxy-

Other names:	Acetaldehyde, chloro-, dimethyl acetal
	Chloroacetaldehyde, dimethyl acetal
	2-Chloro-1,1-dimethoxyethane
	2-Chloroacetaldehyde, dimethyl acetal
	Chlorodimethyl acetal
	Dimethyl chloroacetal
	Dimethyl chloracetal
Inchi:	InChI=1S/C4H9ClO2/c1-6-4(3-5)7-2/h4H,3H2,1-2H3
InchiKey:	CRZJPEIBPQWDGJ-UHFFFAOYSA-N
Formula:	C4H9ClO2
SMILES:	COC(CCl)OC
Mol. weight [g/mol]:	124.57
CAS:	97-97-2

Physical Properties

Property code	Value	Unit	Source
gf	-241.57	kJ/mol	Joback Method
hf	-411.35	kJ/mol	Joback Method
hfus	9.17	kJ/mol	Joback Method
hvap	33.31	kJ/mol	Joback Method
log10ws	-0.43		Crippen Method
logp	0.844		Crippen Method
mcvol	91.200	ml/mol	McGowan Method
pc	3607.21	kPa	Joback Method
tb	402.20	K	NIST Webbook
tc	551.20	K	Joback Method
tf	194.22	K	Joback Method
vc	0.339	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	159.44	J/mol×K	372.75	Joback Method
cpg	194.40	J/mol×K	521.46	Joback Method

cpg	187.71	J/mol×K	491.71	Joback Method
cpg	180.86	J/mol×K	461.97	Joback Method
cpg	173.86	J/mol×K	432.23	Joback Method
cpg	166.72	J/mol×K	402.49	Joback Method
cpg	200.92	J/mol×K	551.20	Joback Method
dvisc	0.0002355	Pa×s	372.75	Joback Method
dvisc	0.0003071	Pa×s	343.00	Joback Method
dvisc	0.0004212	Pa×s	313.24	Joback Method
dvisc	0.0006172	Pa×s	283.49	Joback Method
dvisc	0.0009892	Pa×s	253.73	Joback Method
dvisc	0.0017972	Pa×s	223.97	Joback Method
dvisc	0.0039208	Pa×s	194.22	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C97972&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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume