2-Chloroethyl carbonate

Other names:	Carbonic acid bis(2-chloroethyl) ester
	Ethanol, 2-chloro-, carbonate (2:1)
	Bis(2-chloroethyl)carbonate
Inchi:	InChI=1S/C5H8Cl2O3/c6-1-3-9-5(8)10-4-2-7/h1-4H2
InchiKey:	WQULVXNWEYLDJY-UHFFFAOYSA-N
Formula:	C5H8Cl2O3
SMILES:	O=C(OCCCl)OCCCl
Mol. weight [g/mol]:	187.02
CAS:	623-97-2

Physical Properties

Property code	Value	Unit	Source
gf	-371.56	kJ/mol	Joback Method
hf	-555.03	kJ/mol	Joback Method
hfus	21.07	kJ/mol	Joback Method
hvap	47.06	kJ/mol	Joback Method
log10ws	-1.15		Crippen Method
logp	1.617		Crippen Method
mcvol	119.100	ml/mol	McGowan Method
pc	3291.59	kPa	Joback Method
tb	487.37	K	Joback Method
tc	678.77	K	Joback Method
tf	300.34	K	Joback Method
vc	0.456	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	229.68	J/mol×K	487.37	Joback Method
cpg	237.65	J/mol×K	519.27	Joback Method
cpg	245.34	J/mol×K	551.17	Joback Method
cpg	252.77	J/mol×K	583.07	Joback Method
cpg	259.90	J/mol×K	614.97	Joback Method
cpg	266.75	J/mol×K	646.87	Joback Method

cpg	273.29	J/mol×K	678.77	Joback Method
dvisc	0.0021505	Pa×s	300.34	Joback Method
dvisc	0.0012974	Pa×s	331.51	Joback Method
dvisc	0.0008537	Pa×s	362.68	Joback Method
dvisc	0.0006002	Pa×s	393.86	Joback Method
dvisc	0.0004444	Pa×s	425.03	Joback Method
dvisc	0.0003428	Pa×s	456.20	Joback Method
dvisc	0.0002734	Pa×s	487.37	Joback Method

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=C623972&Units=SI
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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume