Acetic acid, chloro-, 1-methyl-1,2-ethanediyl ester

Other names: 1,2-Bis(chloroacetoxy)propane
Chloroacetic acid, 1,2-propanediol diester
Inchi: InChI=1S/C7H10Cl2O4/c1-5(13-7(11)3-9)4-12-6(10)2-8/h5H,2-4H2,1H3
InchiKey: RVKVLMMCZLSUGU-UHFFFAOYSA-N
Formula: C7H10Cl2O4
SMILES: CC(COC(=O)CCl)OC(=O)CCl
Mol. weight [g/mol]: 229.06
CAS: 42831-64-1

Physical Properties

Property code	Value	Unit	Source
gf	-486.08	kJ/mol	Joback Method
hf	-714.17	kJ/mol	Joback Method
hfus	24.33	kJ/mol	Joback Method
hvap	57.87	kJ/mol	Joback Method
log10ws	-0.90		Crippen Method
logp	0.939		Crippen Method
mcvol	148.850	ml/mol	McGowan Method
pc	2878.12	kPa	Joback Method
tb	586.56	K	Joback Method
tc	785.49	K	Joback Method
tf	357.81	K	Joback Method
vc	0.568	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	326.69	J/mol×K	586.56	Joback Method
cpg	336.43	J/mol×K	619.72	Joback Method
cpg	345.69	J/mol×K	652.87	Joback Method
cpg	354.48	J/mol×K	686.03	Joback Method
cpg	362.79	J/mol×K	719.18	Joback Method
cpg	370.60	J/mol×K	752.34	Joback Method
cpg	377.92	J/mol×K	785.49	Joback Method

dvisc	0.0021007	Pa×s	357.81	Joback Method
dvisc	0.0011981	Pa×s	395.94	Joback Method
dvisc	0.0007542	Pa×s	434.06	Joback Method
dvisc	0.0005116	Pa×s	472.18	Joback Method
dvisc	0.0003677	Pa×s	510.31	Joback Method
dvisc	0.0002767	Pa×s	548.43	Joback Method
dvisc	0.0002161	Pa×s	586.56	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=C42831641&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