Diglycolic acid

Other names:	Acetic acid, 2,2'-oxybis-
	Acetic acid, oxydi-
	Bis(carboxymethyl)ether
	Oxodiacetic acid
	Oxydiacetic acid
	Oxydiethanolic acid
	3-Oxapentanedioic acid
	Oxybisacetic acid
	2,2'-Oxydiacetic acid
	«alpha»,«alpha»-Oxydiacetic acid
	Anhydroglycolic acid
	NSC 8651
	3-Oxapentane-1,5-dioic acid
Inchi:	InChI=1S/C4H6O5/c5-3(6)1-9-2-4(7)8/h1-2H2,(H,5,6)(H,7,8)
InchiKey:	QEVGZEDELICMKH-UHFFFAOYSA-N
Formula:	C4H6O5
SMILES:	O=C(O)COCC(=O)O
Mol. weight [g/mol]:	134.09
CAS:	110-99-6

Physical Properties

Property code	Value	Unit	Source
gf	-653.68	kJ/mol	Joback Method
hf	-787.73	kJ/mol	Joback Method
hfus	18.68	kJ/mol	Joback Method
hvap	73.76	kJ/mol	Joback Method
log10ws	1.22		Crippen Method
logp	-0.828		Crippen Method
mcvol	87.970	ml/mol	McGowan Method
pc	5836.07	kPa	Joback Method
tb	605.44	K	Joback Method
tc	780.90	K	Joback Method
tf	378.57	K	Joback Method
vc	0.328	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	208.75	J/mol×K	605.44	Joback Method
cpg	232.88	J/mol×K	751.65	Joback Method
cpg	228.54	J/mol×K	722.41	Joback Method
cpg	223.95	J/mol×K	693.17	Joback Method
cpg	219.12	J/mol×K	663.93	Joback Method
cpg	214.05	J/mol×K	634.68	Joback Method
cpg	236.98	J/mol×K	780.90	Joback Method
dvisc	0.0000423	Pa×s	605.44	Joback Method
dvisc	0.0000712	Pa×s	567.63	Joback Method
dvisc	0.0001293	Pa×s	529.82	Joback Method
dvisc	0.0002571	Pa×s	492.01	Joback Method
dvisc	0.0005735	Pa×s	454.19	Joback Method
dvisc	0.0014796	Pa×s	416.38	Joback Method
dvisc	0.0046134	Pa×s	378.57	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C110996&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

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