Ethanol, 2,2'-oxybis-, diacetate

Other names:	Diethylene glycol, diacetate
	Oxydiethylene acetate
	Diglycol, diacetate
	dioxyethylene glycol diacetate
	2-(2-Acetyloxyethoxy)ethyl acetate
	oxydiethylene di(acetate)
Inchi:	InChI=1S/C8H14O5/c1-7(9)12-5-3-11-4-6-13-8(2)10/h3-6H2,1-2H3
InchiKey:	UBPGILLNMDGSDS-UHFFFAOYSA-N
Formula:	C8H14O5
SMILES:	CC(=O)OCCOCCOC(C)=O
Mol. weight [g/mol]:	190.19
CAS:	628-68-2

Physical Properties

Property code	Value	Unit	Source
gf	-556.36	kJ/mol	Joback Method
hf	-830.27	kJ/mol	Joback Method
hfus	23.24	kJ/mol	Joback Method
hvap	54.12	kJ/mol	Joback Method
log10ws	0.02		Crippen Method
logp	0.129		Crippen Method
mcvol	144.330	ml/mol	McGowan Method
pc	2738.28	kPa	Joback Method
rinpol	1278.00		NIST Webbook
rinpol	1285.00		NIST Webbook
rinpol	1278.00		NIST Webbook
rinpol	1282.00		NIST Webbook
rinpol	1278.00		NIST Webbook
rinpol	1283.00		NIST Webbook
rinpol	1303.00		NIST Webbook
rinpol	1280.00		NIST Webbook
rinpol	1282.60		NIST Webbook
rinpol	1282.00		NIST Webbook
rinpol	1281.00		NIST Webbook
rinpol	1279.00		NIST Webbook
rinpol	1281.00		NIST Webbook
rinpol	1280.00		NIST Webbook

ripol	1970.00		NIST Webbook
ripol	1937.00		NIST Webbook
ripol	1970.00		NIST Webbook
tb	557.44	K	Joback Method
tc	740.14	K	Joback Method
tf	346.47	K	Joback Method
vc	0.549	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	345.92	J/mol×K	557.44	Joback Method
cpg	357.32	J/mol×K	587.89	Joback Method
cpg	368.32	J/mol×K	618.34	Joback Method
cpg	378.91	J/mol×K	648.79	Joback Method
cpg	389.07	J/mol×K	679.24	Joback Method
cpg	398.77	J/mol×K	709.69	Joback Method
cpg	408.02	J/mol×K	740.14	Joback Method
dvisc	0.0015072	Pa×s	346.47	Joback Method
dvisc	0.0009040	Pa×s	381.63	Joback Method
dvisc	0.0005910	Pa×s	416.79	Joback Method
dvisc	0.0004128	Pa×s	451.96	Joback Method
dvisc	0.0003037	Pa×s	487.12	Joback Method
dvisc	0.0002328	Pa×s	522.28	Joback Method
dvisc	0.0001846	Pa×s	557.44	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	395.70	K	2.10	NIST Webbook

Sources

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=C628682&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume