Diethylene glycol, decyl ether, acetate

Other names: 2-(2-decyloxy-ethoxy)-ethanol, acetate
Inchi: InChI=1S/C16H32O4/c1-3-4-5-6-7-8-9-10-11-18-12-13-19-14-15-20-16(2)17/h3-15H2,1-2
InchiKey: ASRPERSRLFXPEG-UHFFFAOYSA-N
Formula: C16H32O4
SMILES: CCCCCCCCCCOCCOCCOC(C)=O
Mol. weight [g/mol]: 288.42

Physical Properties

Property code	Value	Unit	Source
gf	-360.08	kJ/mol	Joback Method
hf	-882.81	kJ/mol	Joback Method
hfus	42.36	kJ/mol	Joback Method
hvap	65.19	kJ/mol	Joback Method
log10ws	-3.56		Crippen Method
logp	3.723		Crippen Method
mcvol	255.480	ml/mol	McGowan Method
pc	1330.04	kPa	Joback Method
rinpol	2007.10		NIST Webbook
tb	686.61	K	Joback Method
tc	855.74	K	Joback Method
tf	386.70	K	Joback Method
vc	0.992	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	737.63	J/mol×K	686.61	Joback Method
cpg	755.14	J/mol×K	714.80	Joback Method
cpg	771.89	J/mol×K	742.99	Joback Method
cpg	787.86	J/mol×K	771.17	Joback Method
cpg	803.07	J/mol×K	799.36	Joback Method
cpg	817.52	J/mol×K	827.55	Joback Method
cpg	831.20	J/mol×K	855.74	Joback Method
dvisc	0.0011272	Pa×s	386.70	Joback Method

dvisc	0.0005491	Pa×s	436.69	Joback Method
dvisc	0.0003101	Pa×s	486.67	Joback Method
dvisc	0.0001948	Pa×s	536.65	Joback Method
dvisc	0.0001325	Pa×s	586.64	Joback Method
dvisc	0.0000957	Pa×s	636.62	Joback Method
dvisc	0.0000725	Pa×s	686.61	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R184377&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume