Hexadecanoic acid, 2-hydroxyethyl ester

Other names:	Palmitic acid, 2-hydroxyethyl ester
	Ethylene glycol monopalmitate
	Glycol palmitate
	Palmitoylglycol
	2-Hydroxyethyl hexadecanoate
	2-Hydroxyethyl palmitate
	Glycol monopalmitate
	Lanol P
	NSC 406556
Inchi:	InChI=1S/C18H36O3/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-18(20)21-17-16-19/h19H,2-1
InchiKey:	BXCRLBBIZJSWNS-UHFFFAOYSA-N
Formula:	C18H36O3
SMILES:	CCCCCCCCCCCCCCCC(=O)OCCO
Mol. weight [g/mol]:	300.48
CAS:	4219-49-2

Physical Properties

Property code	Value	Unit	Source
gf	-270.06	kJ/mol	Joback Method
hf	-811.88	kJ/mol	Joback Method
hfus	49.25	kJ/mol	Joback Method
hvap	81.50	kJ/mol	Joback Method
log10ws	-5.48		Crippen Method
logp	5.003		Crippen Method
mcvol	277.790	ml/mol	McGowan Method
pc	1268.25	kPa	Joback Method
rinpol	2200.00		NIST Webbook
rinpol	2214.00		NIST Webbook
rinpol	2200.00		NIST Webbook
rinpol	2214.00		NIST Webbook
tb	779.71	K	Joback Method
tc	956.20	K	Joback Method
tf	425.60	K	Joback Method
vc	1.087	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	866.51	J/mol×K	779.71	Joback Method
cpg	943.25	J/mol×K	926.78	Joback Method
cpg	929.52	J/mol×K	897.37	Joback Method
cpg	915.01	J/mol×K	867.95	Joback Method
cpg	899.68	J/mol×K	838.54	Joback Method
cpg	883.52	J/mol×K	809.12	Joback Method
cpg	956.22	J/mol×K	956.20	Joback Method
dvisc	0.0000177	Pa×s	779.71	Joback Method
dvisc	0.0000272	Pa×s	720.69	Joback Method
dvisc	0.0000451	Pa×s	661.67	Joback Method
dvisc	0.0000827	Pa×s	602.65	Joback Method
dvisc	0.0001728	Pa×s	543.64	Joback Method
dvisc	0.0004323	Pa×s	484.62	Joback Method
dvisc	0.0013946	Pa×s	425.60	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C4219492&Units=SI

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