Tetradecanoic acid, 2,3-dihydroxypropyl ester

Other names:	Myristin, 1-mono-
	«alpha»-Monomyristin
	Glycerol 1-myristate
	Myristic acid 1-monoglyceride
	1-Monomyristin
	1,2,3-Propanetriol 1-teradecanoate
	Glycerol «alpha»-tetradecanoate
	2,3-Dihydroxypropyl myristate
	Glyceryl myristate
	2,3-Dihydroxypropyl tetradecanoate
Inchi:	InChI=1S/C17H34O4/c1-2-3-4-5-6-7-8-9-10-11-12-13-17(20)21-15-16(19)14-18/h16,18-1
InchiKey:	DCBSHORRWZKAKO-UHFFFAOYSA-N
Formula:	C17H34O4
SMILES:	CCCCCCCCCCCCCC(=O)OCC(O)CO
Mol. weight [g/mol]:	302.45
CAS:	589-68-4

Physical Properties

Property code	Value	Unit	Source
chs	-10325.80 ± 1.50	kJ/mol	NIST Webbook
chs	-10310.70 ± 2.50	kJ/mol	NIST Webbook
gf	-417.74	kJ/mol	Joback Method
hf	-948.75	kJ/mol	Joback Method
hfs	-1223.00 ± 1.80	kJ/mol	NIST Webbook
hfus	47.23	kJ/mol	Joback Method
hvap	95.56	kJ/mol	Joback Method
log10ws	-4.44		Crippen Method
logp	3.584		Crippen Method
mcvol	269.570	ml/mol	McGowan Method
pc	1465.73	kPa	Joback Method
tb	848.57	K	Joback Method
tc	1039.20	K	Joback Method
tf	460.15	K	Joback Method
vc	1.044	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	876.15	J/mol×K	848.57	Joback Method
cpg	955.68	J/mol×K	1039.20	Joback Method
cpg	944.50	J/mol×K	1007.43	Joback Method
cpg	932.53	J/mol×K	975.65	Joback Method
cpg	919.74	J/mol×K	943.88	Joback Method
cpg	906.10	J/mol×K	912.11	Joback Method
cpg	891.58	J/mol×K	880.34	Joback Method
cps	520.10	J/mol×K	298.00	NIST Webbook
dvisc	0.0000026	Pa×s	848.57	Joback Method
dvisc	0.0000045	Pa×s	783.83	Joback Method
dvisc	0.0000087	Pa×s	719.10	Joback Method
dvisc	0.0000192	Pa×s	654.36	Joback Method
dvisc	0.0000504	Pa×s	589.62	Joback Method
dvisc	0.0001681	Pa×s	524.89	Joback Method
dvisc	0.0007863	Pa×s	460.15	Joback Method

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=C589684&Units=SI
Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chs: Standard solid enthalpy of combustion
cpg: Ideal gas heat capacity
cps: Solid phase heat capacity
dvisc: Dynamic viscosity
gf: Standard Gibbs free energy of formation
hf: Enthalpy of formation at standard conditions
hfs: Solid phase 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