Tetradecanoic acid, 2-hydroxy-1-(hydroxymethyl)ethyl ester

Other names: Myristin, 2-mono-
Myristic acid «beta»-monoglyceride
1,2,3-Propanetriol 2-teradecanoate
Glycerol «beta»-tetradecanoate
2-Monomyristin

Inchi: InChI=1S/C17H34O4/c1-2-3-4-5-6-7-8-9-10-11-12-13-17(20)21-16(14-18)15-19/h16,18-1

InchiKey: TVIMZSOUQXNWHO-UHFFFAOYSA-N

Formula: C17H34O4

SMILES: CCCCCCCCCCCCCC(=O)OC(CO)CO

Mol. weight [g/mol]: 302.45

CAS: 3443-83-2

Physical Properties

Property code	Value	Unit	Source
chs	-10335.90 ± 1.80	kJ/mol	NIST Webbook
gf	-417.74	kJ/mol	Joback Method
hf	-948.75	kJ/mol	Joback Method
hfs	-1212.90 ± 2.10	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	891.58	J/mol×K	880.34	Joback Method

cpg	906.10	J/mol×K	912.11	Joback Method
cpg	919.74	J/mol×K	943.88	Joback Method
cpg	932.53	J/mol×K	975.65	Joback Method
cpg	944.50	J/mol×K	1007.43	Joback Method
cpg	955.68	J/mol×K	1039.20	Joback Method
dvisc	0.0007863	Pa×s	460.15	Joback Method
dvisc	0.0001681	Pa×s	524.89	Joback Method
dvisc	0.0000504	Pa×s	589.62	Joback Method
dvisc	0.0000192	Pa×s	654.36	Joback Method
dvisc	0.0000087	Pa×s	719.10	Joback Method
dvisc	0.0000045	Pa×s	783.83	Joback Method
dvisc	0.0000026	Pa×s	848.57	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=C3443832&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
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