Myristin, 2,3-diaceto-1-

Other names: Tetradecanoic acid, 2,3-bis(acetyloxy)propyl ester
2,3-Bis(acetyloxy)propyl myristate
1-Myristo-2,3-diacetin
Glycerol, 1-tetradecanoate, diacetate
Inchi: InChI=1S/C21H38O6/c1-4-5-6-7-8-9-10-11-12-13-14-15-21(24)26-17-20(27-19(3)23)16-2
InchiKey: WPZADTFNTUIQLK-UHFFFAOYSA-N
Formula: C21H38O6
SMILES: CCCCCCCCCCCCCC(=O)OCC(COC(C)=O)OC(C)=O
Mol. weight [g/mol]: 386.52
CAS: 14473-55-3

Physical Properties

Property code	Value	Unit	Source
gf	-578.26	kJ/mol	Joback Method
hf	-1216.45	kJ/mol	Joback Method
hfus	54.98	kJ/mol	Joback Method
hvap	89.42	kJ/mol	Joback Method
log10ws	-5.31		Crippen Method
logp	4.725		Crippen Method
mcvol	329.070	ml/mol	McGowan Method
pc	1048.69	kPa	Joback Method
rinpol	2471.00		NIST Webbook
rinpol	2471.00		NIST Webbook
tb	908.31	K	Joback Method
tc	1112.06	K	Joback Method
tf	527.91	K	Joback Method
vc	1.278	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1083.61	J/mol×K	908.31	Joback Method
cpg	1100.42	J/mol×K	942.27	Joback Method
cpg	1115.85	J/mol×K	976.23	Joback Method

cpg	1129.91	J/mol×K	1010.19	Joback Method
cpg	1142.60	J/mol×K	1044.15	Joback Method
cpg	1153.94	J/mol×K	1078.10	Joback Method
cpg	1163.93	J/mol×K	1112.06	Joback Method
dvisc	0.0004481	Pa×s	527.91	Joback Method
dvisc	0.0002232	Pa×s	591.31	Joback Method
dvisc	0.0001273	Pa×s	654.71	Joback Method
dvisc	0.0000801	Pa×s	718.11	Joback Method
dvisc	0.0000544	Pa×s	781.51	Joback Method
dvisc	0.0000391	Pa×s	844.91	Joback Method
dvisc	0.0000295	Pa×s	908.31	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=C14473553&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume