Glycerol, 2,3-dimethyl, 1-tetradecanoate

Inchi: InChI=1S/C19H38O4/c1-4-5-6-7-8-9-10-11-12-13-14-15-19(20)23-17-18(22-3)16-21-2/h1
InchiKey: KJCOAUHDEUCUBQ-UHFFFAOYSA-N
Formula: C19H38O4
SMILES: CCCCCCCCCCCCCC(=O)OCC(COC)OC
Mol. weight [g/mol]: 330.50

Physical Properties

Property code	Value	Unit	Source
gf	-337.26	kJ/mol	Joback Method
hf	-950.01	kJ/mol	Joback Method
hfus	46.61	kJ/mol	Joback Method
hvap	71.48	kJ/mol	Joback Method
log10ws	-4.92		Crippen Method
logp	4.892		Crippen Method
mcvol	297.750	ml/mol	McGowan Method
pc	1094.99	kPa	Joback Method
rinpol	2073.00		NIST Webbook
tb	754.81	K	Joback Method
tc	929.81	K	Joback Method
tf	405.51	K	Joback Method
vc	1.153	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	914.19	J/mol×K	754.81	Joback Method
cpg	933.22	J/mol×K	783.98	Joback Method
cpg	951.28	J/mol×K	813.14	Joback Method
cpg	968.39	J/mol×K	842.31	Joback Method
cpg	984.55	J/mol×K	871.47	Joback Method
cpg	999.77	J/mol×K	900.64	Joback Method
cpg	1014.05	J/mol×K	929.81	Joback Method
dvisc	0.0010237	Pa×s	405.51	Joback Method
dvisc	0.0004370	Pa×s	463.73	Joback Method

dvisc	0.0002255	Pa×s	521.94	Joback Method
dvisc	0.0001329	Pa×s	580.16	Joback Method
dvisc	0.0000863	Pa×s	638.38	Joback Method
dvisc	0.0000602	Pa×s	696.59	Joback Method
dvisc	0.0000444	Pa×s	754.81	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=R56553&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