

Glycerol, 2,3-dimethyl, 1-dodecanoate

Inchi:	InChI=1S/C17H34O4/c1-4-5-6-7-8-9-10-11-12-13-17(18)21-15-16(20-3)14-19-2/h16H,4-
InchiKey:	RAZYHPPQPOJMJD-UHFFFAOYSA-N
Formula:	C17H34O4
SMILES:	CCCCCCCCCCCC(=O)OCC(COC)OC
Mol. weight [g/mol]:	302.45

Physical Properties

Property code	Value	Unit	Source
gf	-354.10	kJ/mol	Joback Method
hf	-908.73	kJ/mol	Joback Method
hfus	41.43	kJ/mol	Joback Method
hvap	67.02	kJ/mol	Joback Method
log10ws	-4.09		Crippen Method
logp	4.112		Crippen Method
mcvol	269.570	ml/mol	McGowan Method
pc	1248.61	kPa	Joback Method
rinpola	1873.00		NIST Webbook
tb	709.05	K	Joback Method
tc	880.79	K	Joback Method
tf	382.97	K	Joback Method
vc	1.042	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	795.71	J/molxK	709.05	Joback Method
cpg	813.88	J/molxK	737.67	Joback Method
cpg	831.20	J/molxK	766.30	Joback Method
cpg	847.69	J/molxK	794.92	Joback Method
cpg	863.34	J/molxK	823.55	Joback Method
cpg	878.15	J/molxK	852.17	Joback Method
cpg	892.13	J/molxK	880.79	Joback Method
dvisc	0.0012713	Paxs	382.97	Joback Method
dvisc	0.0005537	Paxs	437.32	Joback Method

dvisc	0.0002898	Paxs	491.66	Joback Method
dvisc	0.0001725	Paxs	546.01	Joback Method
dvisc	0.0001128	Paxs	600.36	Joback Method
dvisc	0.0000792	Paxs	654.70	Joback Method
dvisc	0.0000587	Paxs	709.05	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R56464&Units=SI
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

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

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