

2-Hydroxyethyl laurate

Other names:	Ethylene glycol, (mono)laurate Polyethylene glycol (600) monolaurate
Inchi:	InChI=1S/C14H28O3/c1-2-3-4-5-6-7-8-9-10-11-14(16)17-13-12-15/h15H,2-13H2,1H3
InchiKey:	CTXGTHVAWRBISV-UHFFFAOYSA-N
Formula:	C14H28O3
SMILES:	CCCCCCCCCCCC(=O)OCCO
Mol. weight [g/mol]:	244.37
CAS:	4219-48-1

Physical Properties

Property code	Value	Unit	Source
gf	-303.74	kJ/mol	Joback Method
hf	-729.32	kJ/mol	Joback Method
hfus	38.89	kJ/mol	Joback Method
hvap	72.59	kJ/mol	Joback Method
log10ws	-3.81		Crippen Method
logp	3.443		Crippen Method
mvol	221.430	ml/mol	McGowan Method
pc	1701.90	kPa	Joback Method
tb	688.19	K	Joback Method
tc	855.85	K	Joback Method
tf	380.52	K	Joback Method
vc	0.863	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	637.51	J/molxK	688.19	Joback Method
cpg	652.32	J/molxK	716.13	Joback Method
cpg	666.46	J/molxK	744.08	Joback Method
cpg	679.97	J/molxK	772.02	Joback Method
cpg	692.85	J/molxK	799.96	Joback Method
cpg	705.10	J/molxK	827.90	Joback Method
cpg	716.76	J/molxK	855.85	Joback Method

dvisc	0.0029197	Paxs	380.52	Joback Method
dvisc	0.0009154	Paxs	431.80	Joback Method
dvisc	0.0003671	Paxs	483.08	Joback Method
dvisc	0.0001755	Paxs	534.36	Joback Method
dvisc	0.0000954	Paxs	585.63	Joback Method
dvisc	0.0000573	Paxs	636.91	Joback Method
dvisc	0.0000371	Paxs	688.19	Joback Method

Sources

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=C4219481&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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