1-(2-(Hexadecyloxy)ethoxyl)octadecane

Inchi: InChI=1S/C36H74O2/c1-3-5-7-9-11-13-15-17-19-20-22-24-26-28-30-32-34-38-36-35-37-
InchiKey: RSHNRWZRUITEEY-UHFFFAOYSA-N
Formula: C36H74O2
SMILES: CCCCCCCCCCCCCCCCCCCCOCCOCCCCCCCCCCCCCCCC
Mol. weight [g/mol]: 538.97

Physical Properties

Property code	Value	Unit	Source
gf	42.24	kJ/mol	Joback Method
hf	-1050.81	kJ/mol	Joback Method
hfus	91.37	kJ/mol	Joback Method
hvap	100.55	kJ/mol	Joback Method
log10ws	-13.07		Crippen Method
logp	12.762		Crippen Method
mcvol	529.840	ml/mol	McGowan Method
pc	451.16	kPa	Joback Method
rinpol	412.60		NIST Webbook
rinpol	412.60		NIST Webbook
tb	1067.92	K	Joback Method
tc	1391.31	K	Joback Method
tf	539.94	K	Joback Method
vc	2.087	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1964.06	J/mol×K	1067.92	Joback Method
cpg	1999.29	J/mol×K	1121.82	Joback Method
cpg	2030.59	J/mol×K	1175.72	Joback Method
cpg	2058.24	J/mol×K	1229.61	Joback Method
cpg	2082.53	J/mol×K	1283.51	Joback Method
cpg	2103.76	J/mol×K	1337.41	Joback Method
cpg	2122.20	J/mol×K	1391.31	Joback Method
dvisc	0.0001872	Pa×s	539.94	Joback Method

dvisc	0.0000673	Pa×s	627.94	Joback Method
dvisc	0.0000311	Pa×s	715.93	Joback Method
dvisc	0.0000170	Pa×s	803.93	Joback Method
dvisc	0.0000105	Pa×s	891.93	Joback Method
dvisc	0.0000070	Pa×s	979.92	Joback Method
dvisc	0.0000051	Pa×s	1067.92	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=R516571&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