

Ethanol, 2-(octadecyloxy)-

Other names:	2-Octadecoxyethanol 2-Octadecyloxyethanol Ethylene glycol monoctadecyl ether
Inchi:	InChI=1S/C20H42O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-19-22-20-18-21/h21H
InchiKey:	ICIDSZQHPUZUHC-UHFFFAOYSA-N
Formula:	C20H42O2
SMILES:	CCCCCCCCCCCCCCCCCCOCCO
Mol. weight [g/mol]:	314.55
CAS:	2136-72-3

Physical Properties

Property code	Value	Unit	Source
gf	-124.30	kJ/mol	Joback Method
hf	-740.58	kJ/mol	Joback Method
hfus	52.83	kJ/mol	Joback Method
hvap	79.20	kJ/mol	Joback Method
log10ws	-6.55		Crippen Method
logp	6.257		Crippen Method
mcvol	304.400	ml/mol	McGowan Method
pc	1065.87	kPa	Joback Method
tb	771.60	K	Joback Method
tc	945.05	K	Joback Method
tf	324.40 ± 0.25	K	NIST Webbook
vc	1.192	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	959.87	J/molxK	771.60	Joback Method
cpg	1047.16	J/molxK	916.14	Joback Method
cpg	1031.42	J/molxK	887.23	Joback Method
cpg	1014.85	J/molxK	858.32	Joback Method
cpg	997.42	J/molxK	829.42	Joback Method
cpg	979.10	J/molxK	800.51	Joback Method

cpg	1062.08	J/mol×K	945.05	Joback Method
dvisc	0.0000142	Paxs	771.60	Joback Method
dvisc	0.0000224	Paxs	709.37	Joback Method
dvisc	0.0000388	Paxs	647.14	Joback Method
dvisc	0.0000752	Paxs	584.90	Joback Method
dvisc	0.0001711	Paxs	522.67	Joback Method
dvisc	0.0004857	Paxs	460.44	Joback Method
dvisc	0.0019109	Paxs	398.21	Joback Method

Sources

Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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=C2136723&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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