Ethanol, 2-(hexadecyloxy)-

Other names:	2-Hexadecoxyethanol
	2-Hexadecyloxyethanol
	Ethylene glycol monohexadecyl ether
Inchi:	InChI=1S/C18H38O2/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-17-20-18-16-19/h19H,2-18H
InchiKey:	FSAMVJAGJWGWTQ-UHFFFAOYSA-N
Formula:	C18H38O2
SMILES:	CCCCCCCCCCCCCCCCOCCO
Mol. weight [g/mol]:	286.49
CAS:	2136-71-2

Physical Properties

Property code	Value	Unit	Source
gf	-141.14	kJ/mol	Joback Method
hf	-699.30	kJ/mol	Joback Method
hfus	47.65	kJ/mol	Joback Method
hvap	74.75	kJ/mol	Joback Method
log10ws	-5.71		Crippen Method
logp	5.477		Crippen Method
mcvol	276.220	ml/mol	McGowan Method
pc	1213.20	kPa	Joback Method
tb	725.84	K	Joback Method
tc	892.08	K	Joback Method
tf	315.90 ± 0.25	K	NIST Webbook
vc	1.081	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	921.90	J/mol×K	864.37	Joback Method
cpg	936.13	J/mol×K	892.08	Joback Method
cpg	839.62	J/mol×K	725.84	Joback Method
cpg	857.62	J/mol×K	753.55	Joback Method
cpg	874.83	J/mol×K	781.25	Joback Method
cpg	891.27	J/mol×K	808.96	Joback Method

cpg	906.95	J/mol×K	836.67	Joback Method
dvisc	0.0000328	Pa×s	667.48	Joback Method
dvisc	0.0000206	Pa×s	725.84	Joback Method
dvisc	0.0028831	Pa×s	375.67	Joback Method
dvisc	0.0007275	Pa×s	434.03	Joback Method
dvisc	0.0002545	Pa×s	492.39	Joback Method
dvisc	0.0001112	Pa×s	550.75	Joback Method
dvisc	0.0000569	Pa×s	609.12	Joback Method
hfust	37.32	kJ/mol	318.50	NIST Webbook
hfust	14.94	kJ/mol	311.70	NIST Webbook
hfust	37.32	kJ/mol	318.50	NIST Webbook
sfust	117.20	J/mol×K	318.50	NIST Webbook
sfust	47.93	J/mol×K	311.70	NIST Webbook

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2136712&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
hfust: Enthalpy of fusion at a given temperature
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
sfust: Entropy of fusion at a given temperature
tb: Normal Boiling Point Temperature
tc: Critical Temperature

tf: Normal melting (fusion) point

vc: Critical Volume