2-(2-DODECYLOXYETHOXY)ETHANOL

Other names: 2-[2-(dodecyloxy)ethoxy]ethanol
Akyporox RLM 22
Ethanol, 2-[2-(dodecyloxy)ethoxy]-
Laureth-2
Inchi: InChI=1S/C16H34O3/c1-2-3-4-5-6-7-8-9-10-11-13-18-15-16-19-14-12-17/h17H,2-16H2,1
InchiKey: AZLWQVJVINEILY-UHFFFAOYSA-N
Formula: C16H34O3
SMILES: CCCCCCCCCCCCOCCOCCO
Mol. weight [g/mol]: 274.44

Physical Properties

Property code	Value	Unit	Source
af	1.0542		Cheméo Relay (1.0)
gf	-262.98	kJ/mol	Joback Method
hf	-781.18	kJ/mol	Cheméo Relay (1.0)
hfus	43.66	kJ/mol	Joback Method
hvap	102.82	kJ/mol	Cheméo Relay (1.0)
ie	9.86	eV	Cheméo Relay (1.0)
log10ws	-4.30		Cheméo Relay (1.0)
logp	3.933		Crippen Method
mcvol	253.910	ml/mol	McGowan Method
pc	1375.82	kPa	Joback Method
tb	610.06	K	Cheméo Relay (1.0)
tc	780.74	K	Cheméo Relay (1.0)
tf	290.52	K	Cheméo Relay (1.0)
vc	0.984	m3/kmol	Cheméo Relay (1.0)

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	831.45	J/mol×K	839.07	Joback Method
cpg	844.77	J/mol×K	866.38	Joback Method
cpg	771.30	J/mol×K	729.81	Joback Method
cpg	787.39	J/mol×K	757.13	Joback Method

cpg	802.77	J/mol×K	784.44	Joback Method
cpg	817.46	J/mol×K	811.75	Joback Method
cpg	754.49	J/mol×K	702.50	Joback Method
dvisc	0.0002447	Pa×s	484.41	Joback Method
dvisc	0.0006586	Pa×s	429.88	Joback Method
dvisc	0.0023629	Pa×s	375.36	Joback Method
dvisc	0.0001111	Pa×s	538.93	Joback Method
dvisc	0.0000583	Pa×s	593.45	Joback Method
dvisc	0.0000341	Pa×s	647.98	Joback Method
dvisc	0.0000217	Pa×s	702.50	Joback Method
hvapt	82.10	kJ/mol	468.50	NIST Webbook

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l

Crippen Method: https://www.chemeo.com/doc/models/crippen_log10ws

Cheméo Relay (1.0):

Cheméo Relay (1.0, beta):

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C3055934&Units=SI

Joback Method: https://en.wikipedia.org/wiki/Joback_method

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

Legend

af: Acentric Factor

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

hvapt: Enthalpy of vaporization at a given temperature

ie: Ionization energy

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