Ethanol, 2-(octyloxy)-

Other names:	1-(2-Hydroxyethoxy)octane
	2-(Octyloxy)ethanol
	Ethylene glycol mono-n-octyl ether
	Ethylene glycol monooctyl ether
	n-Octyl-monooxyethylene
Inchi:	InChI=1S/C10H22O2/c1-2-3-4-5-6-7-9-12-10-8-11/h11H,2-10H2,1H3
InchiKey:	ZQCIMPBZCZUDJM-UHFFFAOYSA-N
Formula:	C10H22O2
SMILES:	CCCCCCCCOCCO
Mol. weight [g/mol]:	174.28
CAS:	10020-43-6

Physical Properties

Property code	Value	Unit	Source
gf	-208.50	kJ/mol	Joback Method
hf	-534.18	kJ/mol	Joback Method
hfus	26.93	kJ/mol	Joback Method
hvap	56.94	kJ/mol	Joback Method
log10ws	-2.36		Crippen Method
logp	2.356		Crippen Method
mcvol	163.500	ml/mol	McGowan Method
pc	2261.11	kPa	Joback Method
rinpol	1282.00		NIST Webbook
tb	542.80	K	Joback Method
tc	701.48	K	Joback Method
tf	285.51	K	Joback Method
vc	0.632	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	407.00	J/mol×K	542.80	Joback Method
cpg	467.74	J/mol×K	675.03	Joback Method
cpg	456.50	J/mol×K	648.59	Joback Method

cpg	444.80	J/mol×K	622.14	Joback Method
cpg	432.66	J/mol×K	595.69	Joback Method
cpg	420.06	J/mol×K	569.25	Joback Method
cpg	478.55	J/mol×K	701.48	Joback Method
dvisc	0.0000919	Pa×s	542.80	Joback Method
dvisc	0.0001499	Pa×s	499.92	Joback Method
dvisc	0.0002678	Pa×s	457.04	Joback Method
dvisc	0.0005398	Pa×s	414.15	Joback Method
dvisc	0.0012791	Pa×s	371.27	Joback Method
dvisc	0.0037972	Pa×s	328.39	Joback Method
dvisc	0.0156303	Pa×s	285.51	Joback Method

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.53068e+01
Coeff. B	-4.62081e+03
Coeff. C	-8.11140e+01
Temperature range (K), min.	388.77
Temperature range (K), max.	543.41

Sources

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=C10020436&Units=SI

The Yaws Handbook of Vapor Pressure: https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure

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

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

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
pvap:	Vapor pressure
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume