Ethoxypropoxymethane

Other names:	1-(ethoxymethoxy)propane
	Methane, ethoxy-propoxy
Inchi:	InChI=1S/C6H14O2/c1-3-5-8-6-7-4-2/h3-6H2,1-2H3
InchiKey:	SWQFQRIECLCLQG-UHFFFAOYSA-N
Formula:	C6H14O2
SMILES:	CCCOCOCC
Mol. weight [g/mol]:	118.17

Physical Properties

Property code	Value	Unit	Source
gf	-210.36	kJ/mol	Joback Method
hf	-431.61	kJ/mol	Joback Method
hfus	13.67	kJ/mol	Joback Method
hvap	33.77	kJ/mol	Joback Method
log10ws	-1.00		Crippen Method
logp	1.407		Crippen Method
mcvol	107.140	ml/mol	McGowan Method
pc	2992.59	kPa	Joback Method
rinpol	731.00		NIST Webbook
rinpol	735.00		NIST Webbook
rinpol	731.00		NIST Webbook
tb	381.52	K	Joback Method
tc	546.82	K	Joback Method
tf	201.84	K	Joback Method
vc	0.407	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	252.13	J/mol×K	519.27	Joback Method
cpg	243.09	J/mol×K	491.72	Joback Method
cpg	233.82	J/mol×K	464.17	Joback Method
cpg	224.32	J/mol×K	436.62	Joback Method
cpg	214.60	J/mol×K	409.07	Joback Method

cpg	204.67	J/mol×K	381.52	Joback Method
cpg	260.92	J/mol×K	546.82	Joback Method
dvisc	0.0027699	Pa×s	201.84	Joback Method
dvisc	0.0002032	Pa×s	381.52	Joback Method
dvisc	0.0002609	Pa×s	351.57	Joback Method
dvisc	0.0003510	Pa×s	321.63	Joback Method
dvisc	0.0005017	Pa×s	291.68	Joback Method
dvisc	0.0007784	Pa×s	261.73	Joback Method
dvisc	0.0013528	Pa×s	231.79	Joback Method
rhol	831.40	kg/m3	293.15	Measurement and correlation of (vapour-liquid) equilibrium for binary mixtures composed of 1-(ethoxymethoxy)-propane with ethanol and 1-propanol at 101.33 kPa
rhol	831.10	kg/m3	293.15	Three Binary Azeotropic Systems for 1-(Methoxymethoxy)-propane, 1-(Ethoxymethoxy)-propane, and Methoxy(methoxymethoxy)methane with Three Alcohols at 101.33 kPa: Experimental Data, Correlation, and Purification

Sources

Measurement and correlation of (vapour-liquid) equilibrium for binary mixtures composed of 1-(ethoxymethoxy)-propane with ethanol and 1-propanol at 101.33 kPa:	https://www.doi.org/10.1016/j.jct.2017.03.007
Three Binary Azeotropic Systems for 1-(Methoxymethoxy)-propane, 1-(Ethoxymethoxy)-propane, and Methoxy(methoxymethoxy)methane with Three Alcohols at 101.33 kPa: Experimental Data, Correlation, and Purification:	https://www.doi.org/10.1021/acs.jced.7b00740
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=R143603&Units=SI
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
rhol:	Liquid Density
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume