Hexane, 1-ethoxy-

Other names:	1-ethoxyhexane
	3-oxanonane
	ether, ethyl hexyl
	ethyl hexyl ether
	ethyl n-hexyl ether
	hexyl ethyl ether
Inchi:	InChI=1S/C8H18O/c1-3-5-6-7-8-9-4-2/h3-8H2,1-2H3
InchiKey:	ZXHQLEQLZPJIFG-UHFFFAOYSA-N
Formula:	C8H18O
SMILES:	CCCCCCOCC
Mol. weight [g/mol]:	130.23
CAS:	5756-43-4

Physical Properties

Property code	Value	Unit	Source
gf	-88.52	kJ/mol	Joback Method
hf	-340.67	kJ/mol	Joback Method
hfus	17.66	kJ/mol	Joback Method
hvap	35.81	kJ/mol	Joback Method
ie	9.33	eV	NIST Webbook
log10ws	-2.26		Crippen Method
logp	2.603		Crippen Method
mcvol	129.450	ml/mol	McGowan Method
pc	2492.52	kPa	Joback Method
rinpol	882.00		NIST Webbook
rinpol	882.00		NIST Webbook
tb	404.86	K	Joback Method
tc	568.81	K	Joback Method
tf	202.15	K	Joback Method
vc	0.501	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source

cpg	257.48	J/mol×K	404.86	Joback Method
cpg	270.17	J/mol×K	432.19	Joback Method
cpg	282.47	J/mol×K	459.51	Joback Method
cpg	294.38	J/mol×K	486.84	Joback Method
cpg	305.91	J/mol×K	514.16	Joback Method
cpg	317.06	J/mol×K	541.49	Joback Method
cpg	327.83	J/mol×K	568.81	Joback Method
dvisc	0.0002200	Pa×s	404.86	Joback Method
dvisc	0.0017915	Pa×s	235.94	Joback Method
dvisc	0.0009546	Pa×s	269.72	Joback Method
dvisc	0.0005852	Pa×s	303.50	Joback Method
dvisc	0.0041498	Pa×s	202.15	Joback Method
dvisc	0.0002873	Pa×s	371.08	Joback Method
dvisc	0.0003956	Pa×s	337.29	Joback Method
rhol	775.80	kg/m3	288.15	Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model
rhol	771.47	kg/m3	293.15	Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model
rhol	767.15	kg/m3	298.15	Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model
rhol	762.80	kg/m3	303.15	Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model

rhol	758.45	kg/m3	308.15	Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model
rhol	754.06	kg/m3	313.15	Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model
rhol	749.66	kg/m3	318.15	Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model
rhol	745.27	kg/m3	323.15	Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model

Sources

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

Liquid-liquid equilibrium in binary systems of isomeric C8 aliphatic monoethers with chloromethane: https://www.doi.org/10.1016/j.fluid.2013.07.002

(Liquid + liquid) equilibrium in binary systems of isomeric C8 aliphatic monoethers with acetonitrile and its description by the COSMO-SAC model: https://www.doi.org/10.1016/j.jct.2014.12.025

Excess Enthalpies in Binary Systems of Isomeric C8 Aliphatic Monoethers with Acetonitrile and Their Description by the COSMO-SAC Model: https://www.doi.org/10.1021/acs.jced.5b00838

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=C5756434&Units=SI

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

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
ie:	Ionization energy
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