

Ethanol, 2-[2-(2-ethoxyethoxy)ethoxy]-

Other names:	2-(2-(2-ethoxyethoxy)ethoxy)ethanol 3,6,9-Trioxaundecan-1-ol 3,6,9-trioxaundecane-1-ol 3,6,9-trioxaundecanol Dowanol TE Ethoxytriethylene glycol Ethyltriethylene glycol Ethyltriglycol Poly-solv TE Triethylene glycol ethyl ether Triethylene glycol monoethyl ether Triglycol monoethyl ether ethanol, 2-(2-(2-ethoxyethoxy)ethoxy)-ethoxytriglycol triethyleneglycol, ethyl ether
Inchi:	InChI=1S/C8H18O4/c1-2-10-5-6-12-8-7-11-4-3-9/h9H,2-8H2,1H3
InchiKey:	WFSMVVDJSNMRAR-UHFFFAOYSA-N
Formula:	C8H18O4
SMILES:	CCOCCOCCOCCO
Mol. weight [g/mol]:	178.23
CAS:	112-50-5

Physical Properties

Property code	Value	Unit	Source
gf	-435.34	kJ/mol	Joback Method
hf	-757.34	kJ/mol	Joback Method
hfus	24.13	kJ/mol	Joback Method
hvap	57.31	kJ/mol	Joback Method
log10ws	0.30		Crippen Method
logp	0.048		Crippen Method
mcvol	147.060	ml/mol	McGowan Method
pc	2643.39	kPa	Joback Method
rinpol	1198.00		NIST Webbook
rinpol	1287.30		NIST Webbook
rinpol	1198.00		NIST Webbook
tb	529.05	K	NIST Webbook
tc	701.89	K	Joback Method

tf	254.45	K	NIST Webbook
vc	0.556	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	426.30	J/mol×K	701.89	Joback Method
cpg	406.85	J/mol×K	648.55	Joback Method
cpg	396.59	J/mol×K	621.88	Joback Method
cpg	386.00	J/mol×K	595.22	Joback Method
cpg	375.07	J/mol×K	568.55	Joback Method
cpg	363.81	J/mol×K	541.88	Joback Method
cpg	416.75	J/mol×K	675.22	Joback Method
dvisc	0.0080870	Pa×s	293.15	Viscosities of binary mixtures of some n-ethoxyethanols with ethyl tert-butyl ether at T = (293.15, 298.15, and 303.15) K
dvisc	0.0026270	Pa×s	333.15	Density and Viscosity of the Binary Mixture of Triethylene Glycol Monoethyl Ether + Water from (293.15 to 333.15) K at Atmospheric Pressure
dvisc	0.0033260	Pa×s	323.15	Density and Viscosity of the Binary Mixture of Triethylene Glycol Monoethyl Ether + Water from (293.15 to 333.15) K at Atmospheric Pressure
dvisc	0.0041850	Pa×s	313.15	Density and Viscosity of the Binary Mixture of Triethylene Glycol Monoethyl Ether + Water from (293.15 to 333.15) K at Atmospheric Pressure

dvisc	0.0056570	Pa×s	303.15	Density and Viscosity of the Binary Mixture of Triethylene Glycol Monoethyl Ether + Water from (293.15 to 333.15) K at Atmospheric Pressure
dvisc	0.0067390	Pa×s	298.15	Density and Viscosity of the Binary Mixture of Triethylene Glycol Monoethyl Ether + Water from (293.15 to 333.15) K at Atmospheric Pressure
dvisc	0.0077960	Pa×s	293.15	Density and Viscosity of the Binary Mixture of Triethylene Glycol Monoethyl Ether + Water from (293.15 to 333.15) K at Atmospheric Pressure
dvisc	0.0064210	Pa×s	303.15	Viscosities of binary mixtures of some n-ethoxyethanols with ethyl tert-butyl ether at T = (293.15, 298.15, and 303.15) K
dvisc	0.0070490	Pa×s	298.15	Viscosities of binary mixtures of some n-ethoxyethanols with ethyl tert-butyl ether at T = (293.15, 298.15, and 303.15) K
rfi	1.43623		298.15	Excess molar volumes and excess molar enthalpies of the binary mixtures of 1,2-dichloropropane with di- and triethylene glycol mono-alkyl ethers at T=298.15K

rhoI

1008.80

kg/m³

308.50

Excess Molar
Enthalpies and
Hydrogen
Bonding in Binary
Mixtures
Containing
Ethers and
Benzyl Alcohol at
308.15 K and
Atmospheric
Pressure

Sources

Joback Method:

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

Excess Molar Enthalpies and Hydrogen Bonding in Binary Mixtures Containing Ethers and Benzyl Alcohol at 308.15 K and Atmospheric Pressure: Crippen Method:

<https://www.doi.org/10.1021/je0504212>

<http://webbook.nist.gov/cgi/cbook.cgi?ID=C112505&Units=SI>

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

Viscosities of binary mixtures of some n-ethoxyethanols with ethyl tert-butyl ether at 298.15, 298.15, and 303.15) K:

<https://www.doi.org/10.1016/j.jct.2007.01.010>

Excess molar volumes and excess molar enthalpies of the binary mixtures of benzyl alcohol with the binary mixtures of triethylamine, glycol ethers at 298.15 K, and benzyl alcohol + Water from (293.15 to 333.15) K at Atmospheric Pressure:

<http://link.springer.com/article/10.1007/BF02311772>

<https://www.doi.org/10.1016/j.fluid.2009.06.018>

<https://www.doi.org/10.1021/je9008014>

<http://pubs.acs.org/doi/abs/10.1021/ci990307l>

Legend

cp _g :	Ideal gas heat capacity
dv _{isc} :	Dynamic viscosity
g _f :	Standard Gibbs free energy of formation
h _f :	Enthalpy of formation at standard conditions
h _{fus} :	Enthalpy of fusion at standard conditions
h _{vap} :	Enthalpy of vaporization at standard conditions
log _{10ws} :	Log10 of Water solubility in mol/l
log _p :	Octanol/Water partition coefficient
mc _{vol} :	McGowan's characteristic volume
p _c :	Critical Pressure
r _{fi} :	Refractive Index
ρ _h :	Liquid Density
ri _{pol} :	Non-polar retention indices
t _b :	Normal Boiling Point Temperature
t _c :	Critical Temperature
t _f :	Normal melting (fusion) point

vc: Critical Volume

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