3-Ethoxy-1,2-propanediol

Other names:	1,2-Propanediol, 3-ethoxy-
	Glycerol «alpha»-ethyl ether
	Glycerol «alpha»-monoethyl ether
	Glycerol 1-ethyl ether
	1-Ethoxy-2,3-propanediol
	«alpha»-Ethyl glycerol ether
	3-ethoxypropane-1,2-diol
Inchi:	InChI=1S/C5H12O3/c1-2-8-4-5(7)3-6/h5-7H,2-4H2,1H3
InchiKey:	LOSWWGJGSSQDKH-UHFFFAOYSA-N
Formula:	$C_5H_{12}O_3$
SMILES:	CCOCC(O)CO
Mol. weight [g/mol]:	120.15
CAS:	1874-62-0

Physical Properties

Property code	Value	Unit	Source
gf	-389.86	kJ/mol	Joback Method
hf	-588.49	kJ/mol	Joback Method
hfus	14.55	kJ/mol	Joback Method
hvap	62.10	kJ/mol	Joback Method
log10ws	0.36		Crippen Method
logp	-0.624		Crippen Method
mcvol	98.920	ml/mol	McGowan Method
pc	4311.22	kPa	Joback Method
tb	495.20	K	NIST Webbook
tc	681.02	K	Joback Method
tf	274.98	K	Joback Method
vc	0.365	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	234.70	J/mol×K	520.14	Joback Method
cpg	242.36	J/mol×K	546.95	Joback Method

cpg	249.76	J/mol×K	573.77	Joback Method
cpg	256.90	J/mol×K	600.58	Joback Method
cpg	263.78	J/mol×K	627.39	Joback Method
cpg	270.41	J/mol×K	654.21	Joback Method
cpg	276.78	J/mol×K	681.02	Joback Method
dvisc	0.1209178	Pa×s	274.98	Joback Method
dvisc	0.0153990	Pa×s	315.84	Joback Method
dvisc	0.0031444	Pa×s	356.70	Joback Method
dvisc	0.0008900	Pa×s	397.56	Joback Method
dvisc	0.0003188	Pa×s	438.42	Joback Method
dvisc	0.0001360	Pa×s	479.28	Joback Method
dvisc	0.0000663	Pa×s	520.14	Joback Method

Sources

Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
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=C1874620&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
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

Latest version available from:

https://www.chemeo.com/cid/25-045-4/3-Ethoxy-1-2-propanediol.pdf

Generated by Cheméo on 2024-10-12 09:12:26.672755539 +0000 UTC m=+3305209.309724787.

Cheméo (https://www.chemeo.com) is the biggest free database of chemical and physical data for the process industry.