Ethane, 1-ethoxy-1-methoxy-

Other names:	Acetaldehyde, ethyl methyl acetal
	Acetaldehyde methyl ethyl acetyl
	1,1-Ethoxymethoxyethane
	1-ethoxy-1-methoxyethane
Inchi:	InChI=1S/C5H12O2/c1-4-7-5(2)6-3/h5H,4H2,1-3H3
InchiKey:	MYCXIDKAJBXPCZ-UHFFFAOYSA-N
Formula:	C5H12O2
SMILES:	CCOC(C)OC
Mol. weight [g/mol]:	104.15
CAS:	10471-14-4

Physical Properties

Property code	Value	Unit	Source
gf	-221.22	kJ/mol	Joback Method
hf	-416.25	kJ/mol	Joback Method
hfus	7.56	kJ/mol	Joback Method
hvap	31.16	kJ/mol	Joback Method
log10ws	-0.70		Crippen Method
logp	1.015		Crippen Method
mcvol	93.050	ml/mol	McGowan Method
pc	3364.54	kPa	Joback Method
rinpol	641.00		NIST Webbook
rinpol	641.00		NIST Webbook
tb	358.20	K	Joback Method
tc	527.59	K	Joback Method
tf	175.57	K	Joback Method
vc	0.345	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	169.41	J/mol×K	358.20	Joback Method
cpg	178.19	J/mol×K	386.43	Joback Method
cpg	186.80	J/mol×K	414.66	Joback Method

cpg	195.24	J/mol×K	442.89	Joback Method
cpg	203.50	J/mol×K	471.12	Joback Method
cpg	211.58	J/mol×K	499.35	Joback Method
cpg	219.47	J/mol×K	527.59	Joback Method
dvisc	0.0043341	Pa×s	175.57	Joback Method
dvisc	0.0017713	Pa×s	206.01	Joback Method
dvisc	0.0009115	Pa×s	236.45	Joback Method
dvisc	0.0005458	Pa×s	266.88	Joback Method
dvisc	0.0003630	Pa×s	297.32	Joback Method
dvisc	0.0002604	Pa×s	327.76	Joback Method
dvisc	0.0001977	Pa×s	358.20	Joback Method

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=C10471144&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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume