Ether, bis(ethoxymethyl)

Other names: 3,5,7-Trioxanonane
Inchi: InChI=1S/C6H14O3/c1-3-7-5-9-6-8-4-2/h3-6H2,1-2H3
InchiKey: ANPYLYUCGAFKNQ-UHFFFAOYSA-N
Formula: C6H14O3
SMILES: CCOCOCOCC
Mol. weight [g/mol]: 134.17
CAS: 5648-29-3

Physical Properties

Property code	Value	Unit	Source
chl	-3736.10 ± 1.00	kJ/mol	NIST Webbook
gf	-315.36	kJ/mol	Joback Method
hf	-581.10 ± 1.10	kJ/mol	NIST Webbook
hfl	-625.80 ± 1.10	kJ/mol	NIST Webbook
hfus	14.86	kJ/mol	Joback Method
hvap	44.69 ± 0.17	kJ/mol	NIST Webbook
hvap	44.70 ± 0.20	kJ/mol	NIST Webbook
log10ws	-0.59		Crippen Method
logp	0.991		Crippen Method
mcvol	113.010	ml/mol	McGowan Method
pc	2937.70	kPa	Joback Method
tb	403.94	K	Joback Method
tc	569.71	K	Joback Method
tf	224.07	K	Joback Method
vc	0.425	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	227.24	J/mol×K	403.94	Joback Method
cpg	274.56	J/mol×K	542.08	Joback Method
cpg	265.47	J/mol×K	514.45	Joback Method
cpg	256.17	J/mol×K	486.83	Joback Method
cpg	246.70	J/mol×K	459.20	Joback Method

cpg	237.05	J/mol×K	431.57	Joback Method
cpg	283.44	J/mol×K	569.71	Joback Method
dvisc	0.0001803	Pa×s	403.94	Joback Method
dvisc	0.0002307	Pa×s	373.96	Joback Method
dvisc	0.0003081	Pa×s	343.98	Joback Method
dvisc	0.0004348	Pa×s	314.00	Joback Method
dvisc	0.0006601	Pa×s	284.03	Joback Method
dvisc	0.0011057	Pa×s	254.05	Joback Method
dvisc	0.0021262	Pa×s	224.07	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=C5648293&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

chl:	Standard liquid enthalpy of combustion
cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfl:	Liquid phase 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

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