HOCH2CH2O2

Inchi: InChI=1S/C2H5O3/c3-1-2-5-4/h3H,1-2H2
InchiKey: AONOSQAJVFLOQD-UHFFFAOYSA-N
Formula: C2H5O3
SMILES: [O]OCCO
Mol. weight [g/mol]: 77.06
CAS: 40135-01-1

Physical Properties

Property code	Value	Unit	Source
gf	-428.85	kJ/mol	Joback Method
hf	-498.31	kJ/mol	Joback Method
hfus	11.07	kJ/mol	Joback Method
hvap	43.98	kJ/mol	Joback Method
log10ws	-3.89		Crippen Method
logp	-0.659		Crippen Method
mcvol	54.500	ml/mol	McGowan Method
pc	5627.81	kPa	Joback Method
tb	394.86	K	Joback Method
tc	563.88	K	Joback Method
tf	231.82	K	Joback Method
vc	0.183	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	89.35	J/mol×K	394.86	Joback Method
cpg	92.92	J/mol×K	423.03	Joback Method
cpg	96.27	J/mol×K	451.20	Joback Method
cpg	99.42	J/mol×K	479.37	Joback Method
cpg	102.37	J/mol×K	507.54	Joback Method
cpg	105.14	J/mol×K	535.71	Joback Method
cpg	107.74	J/mol×K	563.88	Joback Method
dvisc	0.0226409	Pa×s	231.82	Joback Method
dvisc	0.0085413	Pa×s	258.99	Joback Method

dvisc	0.0038775	Pa×s	286.17	Joback Method
dvisc	0.0020187	Pa×s	313.34	Joback Method
dvisc	0.0011664	Pa×s	340.51	Joback Method
dvisc	0.0007308	Pa×s	367.69	Joback Method
dvisc	0.0004883	Pa×s	394.86	Joback Method

Sources

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

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=C40135011&Units=SI

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