1-Ethoxyethyl hydroxyperoxide

Inchi: InChI=1S/C4H10O3/c1-3-6-4(2)7-5/h4-5H,3H2,1-2H3
InchiKey: CXWWPQGYBJCHJL-UHFFFAOYSA-N
Formula: C4H10O3
SMILES: CCOC(C)OO
Mol. weight [g/mol]: 106.12

Physical Properties

Property code	Value	Unit	Source
gf	-366.46	kJ/mol	Joback Method
hf	-547.84	kJ/mol	Joback Method
hfus	9.06	kJ/mol	Joback Method
hvap	45.61	kJ/mol	Joback Method
log10ws	-0.59		Crippen Method
logp	0.858		Crippen Method
mcvol	84.830	ml/mol	McGowan Method
pc	4238.55	kPa	Joback Method
rinpol	794.00		NIST Webbook
rinpol	794.00		NIST Webbook
tb	427.50	K	Joback Method
tc	593.83	K	Joback Method
tf	225.12	K	Joback Method
vc	0.308	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	174.99	J/mol×K	427.50	Joback Method
cpg	182.07	J/mol×K	455.22	Joback Method
cpg	189.00	J/mol×K	482.94	Joback Method
cpg	195.78	J/mol×K	510.67	Joback Method
cpg	202.41	J/mol×K	538.39	Joback Method
cpg	208.86	J/mol×K	566.11	Joback Method
cpg	215.15	J/mol×K	593.83	Joback Method
dvisc	0.0565209	Pa×s	225.12	Joback Method

dvisc	0.0119212	Pa×s	258.85	Joback Method
dvisc	0.0035997	Pa×s	292.58	Joback Method
dvisc	0.0013923	Pa×s	326.31	Joback Method
dvisc	0.0006434	Pa×s	360.04	Joback Method
dvisc	0.0003394	Pa×s	393.77	Joback Method
dvisc	0.0001980	Pa×s	427.50	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R589361&Units=SI
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

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

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