

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/molxK	427.50	Joback Method
cpg	182.07	J/molxK	455.22	Joback Method
cpg	189.00	J/molxK	482.94	Joback Method
cpg	195.78	J/molxK	510.67	Joback Method
cpg	202.41	J/molxK	538.39	Joback Method
cpg	208.86	J/molxK	566.11	Joback Method
cpg	215.15	J/molxK	593.83	Joback Method
dvisc	0.0565209	Paxs	225.12	Joback Method

dvisc	0.0119212	Paxs	258.85	Joback Method
dvisc	0.0035997	Paxs	292.58	Joback Method
dvisc	0.0013923	Paxs	326.31	Joback Method
dvisc	0.0006434	Paxs	360.04	Joback Method
dvisc	0.0003394	Paxs	393.77	Joback Method
dvisc	0.0001980	Paxs	427.50	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=R589361&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071
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

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