2,3-Dimethyloxirane

Inchi: InChI=1S/C4H8O/c1-3-4(2)5-3/h3-4H,1-2H3
InchiKey: PQXKWPLDPFFDJP-UHFFFAOYSA-N
Formula: C4H8O
SMILES: CC1OC1C
Mol. weight [g/mol]: 72.11

Physical Properties

Property code	Value	Unit	Source
gf	-50.28	kJ/mol	Joback Method
hf	-205.43	kJ/mol	Joback Method
hfus	13.30	kJ/mol	Joback Method
hvap	28.61	kJ/mol	Joback Method
log10ws	-0.70		Crippen Method
logp	0.794		Crippen Method
mcvol	62.230	ml/mol	McGowan Method
pc	4362.63	kPa	Joback Method
tb	319.94	K	Joback Method
tc	499.65	K	Joback Method
tf	175.11	K	Joback Method
vc	0.236	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	101.87	J/mol×K	319.94	Joback Method
cpg	111.08	J/mol×K	349.89	Joback Method
cpg	119.86	J/mol×K	379.84	Joback Method
cpg	128.23	J/mol×K	409.80	Joback Method
cpg	136.19	J/mol×K	439.75	Joback Method
cpg	143.77	J/mol×K	469.70	Joback Method
cpg	150.98	J/mol×K	499.65	Joback Method
dvisc	0.0003513	Pa×s	175.11	Joback Method
dvisc	0.0003166	Pa×s	199.25	Joback Method
dvisc	0.0002918	Pa×s	223.39	Joback Method

dvisc	0.0002732	Pa×s	247.53	Joback Method
dvisc	0.0002589	Pa×s	271.66	Joback Method
dvisc	0.0002474	Pa×s	295.80	Joback Method
dvisc	0.0002381	Pa×s	319.94	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=B6001758&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