Oxirane, 2-methyl-3-(1-methylethyl)-

Other names: Pentane, 2,3-epoxy-4-methyl-
trans-4-methyl-2,3-epoxypentane
Inchi: InChI=1S/C6H12O/c1-4(2)6-5(3)7-6/h4-6H,1-3H3
InchiKey: AYTCGOOJNRZGBU-UHFFFAOYSA-N
Formula: C6H12O
SMILES: CC(C)C1OC1C
Mol. weight [g/mol]: 100.16
CAS: 1192-31-0

Physical Properties

Property code	Value	Unit	Source
gf	-35.88	kJ/mol	Joback Method
hf	-251.99	kJ/mol	Joback Method
hfus	14.96	kJ/mol	Joback Method
hvap	32.68	kJ/mol	Joback Method
log10ws	-1.30		Crippen Method
logp	1.430		Crippen Method
mcvol	90.410	ml/mol	McGowan Method
pc	3468.36	kPa	Joback Method
rinpol	696.20		NIST Webbook
rinpol	695.90		NIST Webbook
rinpol	695.90		NIST Webbook
rinpol	696.60		NIST Webbook
rinpol	696.30		NIST Webbook
tb	365.26	K	Joback Method
tc	549.25	K	Joback Method
tf	182.65	K	Joback Method
vc	0.343	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	169.90	J/mol×K	365.26	Joback Method
cpg	226.59	J/mol×K	518.58	Joback Method

cpg	216.34	J/mol×K	487.92	Joback Method
cpg	205.56	J/mol×K	457.25	Joback Method
cpg	194.25	J/mol×K	426.59	Joback Method
cpg	182.36	J/mol×K	395.92	Joback Method
cpg	236.34	J/mol×K	549.25	Joback Method
dvisc	0.0003404	Pa×s	365.26	Joback Method
dvisc	0.0003739	Pa×s	334.82	Joback Method
dvisc	0.0004184	Pa×s	304.39	Joback Method
dvisc	0.0004800	Pa×s	273.95	Joback Method
dvisc	0.0005700	Pa×s	243.52	Joback Method
dvisc	0.0007109	Pa×s	213.09	Joback Method
dvisc	0.0009543	Pa×s	182.65	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=C1192310&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
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