Oxirane, (3,3-dimethylbutyl)-

Inchi: InChI=1S/C8H16O/c1-8(2,3)5-4-7-6-9-7/h7H,4-6H2,1-3H3
InchiKey: WAHCIOYRXXNHEZ-UHFFFAOYSA-N
Formula: C8H16O
SMILES: CC(C)(C)CCC1CO1
Mol. weight [g/mol]: 128.21
CAS: 53907-77-0

Physical Properties

Property code	Value	Unit	Source
gf	-6.05	kJ/mol	Joback Method
hf	-276.40	kJ/mol	Joback Method
hfus	15.18	kJ/mol	Joback Method
hvap	36.53	kJ/mol	Joback Method
log10ws	-2.02		Crippen Method
logp	2.212		Crippen Method
mcvol	118.590	ml/mol	McGowan Method
pc	2934.52	kPa	Joback Method
tb	412.90	K	Joback Method
tc	603.19	K	Joback Method
tf	226.85	K	Joback Method
vc	0.451	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	249.38	J/mol×K	412.90	Joback Method
cpg	265.13	J/mol×K	444.61	Joback Method
cpg	279.95	J/mol×K	476.33	Joback Method
cpg	293.90	J/mol×K	508.04	Joback Method
cpg	307.00	J/mol×K	539.76	Joback Method
cpg	319.33	J/mol×K	571.47	Joback Method
cpg	330.91	J/mol×K	603.19	Joback Method
dvisc	0.0036221	Pa×s	226.85	Joback Method
dvisc	0.0021146	Pa×s	257.86	Joback Method

dvisc	0.0013857	Pa×s	288.87	Joback Method
dvisc	0.0009856	Pa×s	319.88	Joback Method
dvisc	0.0007445	Pa×s	350.88	Joback Method
dvisc	0.0005886	Pa×s	381.89	Joback Method
dvisc	0.0004821	Pa×s	412.90	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=C53907770&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