1,2-Epoxy-8-methylnonane

Inchi: InChI=1S/C10H20O/c1-9(2)6-4-3-5-7-10-8-11-10/h9-10H,3-8H2,1-2H3
InchiKey: NBADXIBTCPFODP-UHFFFAOYSA-N
Formula: C10H20O
SMILES: CC(C)CCCCCC1CO1
Mol. weight [g/mol]: 156.27

Physical Properties

Property code	Value	Unit	Source
gf	5.51	kJ/mol	Joback Method
hf	-314.21	kJ/mol	Joback Method
hfus	24.25	kJ/mol	Joback Method
hvap	41.89	kJ/mol	Joback Method
log10ws	-2.86		Crippen Method
logp	2.992		Crippen Method
mcvol	146.770	ml/mol	McGowan Method
pc	2381.86	kPa	Joback Method
rinpol	1177.00		NIST Webbook
tb	461.45	K	Joback Method
tc	641.05	K	Joback Method
tf	231.97	K	Joback Method
vc	0.568	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	334.38	J/mol×K	461.45	Joback Method
cpg	408.74	J/mol×K	611.12	Joback Method
cpg	395.31	J/mol×K	581.18	Joback Method
cpg	381.19	J/mol×K	551.25	Joback Method
cpg	366.35	J/mol×K	521.32	Joback Method
cpg	350.76	J/mol×K	491.38	Joback Method
cpg	421.51	J/mol×K	641.05	Joback Method
dvisc	0.0004406	Pa×s	461.45	Joback Method
dvisc	0.0005360	Pa×s	423.20	Joback Method

dvisc	0.0006780	Pa×s	384.96	Joback Method
dvisc	0.0009032	Pa×s	346.71	Joback Method
dvisc	0.0012919	Pa×s	308.46	Joback Method
dvisc	0.0020449	Pa×s	270.22	Joback Method
dvisc	0.0037662	Pa×s	231.97	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=R412474&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

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