1,2-Epoxy-8-methyldecane

Inchi: InChI=1S/C11H22O/c1-3-10(2)7-5-4-6-8-11-9-12-11/h10-11H,3-9H2,1-2H3
InchiKey: ZTZIGYKTNOLUFD-UHFFFAOYSA-N
Formula: C11H22O
SMILES: CCC(C)CCCCCC1CO1
Mol. weight [g/mol]: 170.29

Physical Properties

Property code	Value	Unit	Source
gf	13.93	kJ/mol	Joback Method
hf	-334.85	kJ/mol	Joback Method
hfus	26.84	kJ/mol	Joback Method
hvap	44.12	kJ/mol	Joback Method
log10ws	-3.28		Crippen Method
logp	3.382		Crippen Method
mcvol	160.860	ml/mol	McGowan Method
pc	2173.43	kPa	Joback Method
rinpol	1283.00		NIST Webbook
tb	484.33	K	Joback Method
tc	662.33	K	Joback Method
tf	243.24	K	Joback Method
vc	0.624	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.67	J/mol×K	484.33	Joback Method
cpg	458.43	J/mol×K	632.66	Joback Method
cpg	444.37	J/mol×K	603.00	Joback Method
cpg	429.60	J/mol×K	573.33	Joback Method
cpg	414.07	J/mol×K	543.66	Joback Method
cpg	397.78	J/mol×K	514.00	Joback Method
cpg	471.82	J/mol×K	662.33	Joback Method
dvisc	0.0004314	Pa×s	484.33	Joback Method
dvisc	0.0005293	Pa×s	444.15	Joback Method

dvisc	0.0006764	Pa×s	403.97	Joback Method
dvisc	0.0009125	Pa×s	363.78	Joback Method
dvisc	0.0013261	Pa×s	323.60	Joback Method
dvisc	0.0021425	Pa×s	283.42	Joback Method
dvisc	0.0040561	Pa×s	243.24	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=R412469&Units=SI
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

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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