

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)CCCCC1CO1
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
rinsol	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	m ³ /kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	380.67	J/molxK	484.33	Joback Method
cpg	397.78	J/molxK	514.00	Joback Method
cpg	414.07	J/molxK	543.66	Joback Method
cpg	429.60	J/molxK	573.33	Joback Method
cpg	444.37	J/molxK	603.00	Joback Method
cpg	458.43	J/molxK	632.66	Joback Method
cpg	471.82	J/molxK	662.33	Joback Method
dvisc	0.0040561	Paxs	243.24	Joback Method
dvisc	0.0021425	Paxs	283.42	Joback Method

dvisc	0.0013261	Paxs	323.60	Joback Method
dvisc	0.0009125	Paxs	363.78	Joback Method
dvisc	0.0006764	Paxs	403.97	Joback Method
dvisc	0.0005293	Paxs	444.15	Joback Method
dvisc	0.0004314	Paxs	484.33	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/ci9903071
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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