Oxirane, dodecyl-

Other names: 1,2-Epoxytetradecane
dodecyloxirane
Inchi: InChI=1S/C14H28O/c1-2-3-4-5-6-7-8-9-10-11-12-14-13-15-14/h14H,2-13H2,1H3
InchiKey: IOHJQSFEAYDZGF-UHFFFAOYSA-N
Formula: C14H28O
SMILES: CCCCCCCCCCCCC1CO1
Mol. weight [g/mol]: 212.37
CAS: 3234-28-4

Physical Properties

Property code	Value	Unit	Source
gf	41.63	kJ/mol	Joback Method
hf	-391.49	kJ/mol	Joback Method
hfus	38.13	kJ/mol	Joback Method
hvap	51.18	kJ/mol	Joback Method
log10ws	-4.78		Crippen Method
logp	4.696		Crippen Method
mcvol	203.130	ml/mol	McGowan Method
pc	1678.28	kPa	Joback Method
tb	553.41	K	Joback Method
tc	723.80	K	Joback Method
tf	292.05	K	Joback Method
vc	0.797	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	529.79	J/mol×K	553.41	Joback Method
cpg	613.80	J/mol×K	695.40	Joback Method
cpg	598.53	J/mol×K	667.00	Joback Method
cpg	582.52	J/mol×K	638.60	Joback Method
cpg	565.75	J/mol×K	610.21	Joback Method
cpg	548.19	J/mol×K	581.81	Joback Method
cpg	628.39	J/mol×K	723.80	Joback Method

dvisc	0.0003973	Pa×s	553.41	Joback Method
dvisc	0.0004886	Pa×s	509.85	Joback Method
dvisc	0.0006245	Pa×s	466.29	Joback Method
dvisc	0.0008397	Pa×s	422.73	Joback Method
dvisc	0.0012085	Pa×s	379.17	Joback Method
dvisc	0.0019117	Pa×s	335.61	Joback Method
dvisc	0.0034673	Pa×s	292.05	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=C3234284&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