Oxirane, tetradecyl-

Other names:	Hexadecane, 1,2-epoxy-
	Hexadecylene oxide
	1,2-Epoxyhexadecane
	1,2-Hexadecane oxide
	1,2-Hexadecene epoxide
	Hexadecene epoxide
	NCI-C55538
	2-Tetradecyloxirane
	Oxirane, 2-tetradecyl-
	Tetradecyloxirane
Inchi:	InChI=1S/C16H32O/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-16-15-17-16/h16H,2-15H2,1H3
InchiKey:	DSZTYVZOIUIIGA-UHFFFAOYSA-N
Formula:	C16H32O
SMILES:	CCCCCCCCCCCCCCC1CO1
Mol. weight [g/mol]:	240.42
CAS:	7320-37-8

Physical Properties

Property code	Value	Unit	Source
gf	58.47	kJ/mol	Joback Method
hf	-432.77	kJ/mol	Joback Method
hfus	43.31	kJ/mol	Joback Method
hvap	55.63	kJ/mol	Joback Method
log10ws	-5.61		Crippen Method
logp	5.476		Crippen Method
mcvol	231.310	ml/mol	McGowan Method
pc	1442.44	kPa	Joback Method
rinpol	1708.00		NIST Webbook
rinpol	1676.00		NIST Webbook
rinpol	1676.00		NIST Webbook
rinpol	1708.00		NIST Webbook
rinpol	1708.00		NIST Webbook
tb	599.17	K	Joback Method
tc	767.73	K	Joback Method
tf	314.59	K	Joback Method
vc	0.909	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	637.11	J/mol×K	599.17	Joback Method
cpg	656.35	J/mol×K	627.26	Joback Method
cpg	674.72	J/mol×K	655.36	Joback Method
cpg	692.28	J/mol×K	683.45	Joback Method
cpg	709.04	J/mol×K	711.55	Joback Method
cpg	725.06	J/mol×K	739.64	Joback Method
cpg	740.35	J/mol×K	767.73	Joback Method
dvisc	0.0034535	Pa×s	314.59	Joback Method
dvisc	0.0018277	Pa×s	362.02	Joback Method
dvisc	0.0011209	Pa×s	409.45	Joback Method
dvisc	0.0007608	Pa×s	456.88	Joback Method
dvisc	0.0005555	Pa×s	504.31	Joback Method
dvisc	0.0004281	Pa×s	551.74	Joback Method
dvisc	0.0003438	Pa×s	599.17	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	450.70	K	1.60	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C7320378&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

McGowan Method: http://link.springer.com/article/10.1007/BF02311772

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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume