Oxirane, hexyl-

Other names:	Octane, 1,2-epoxy- «alpha»-Epoxyoctane n-Octene-1,2-oxide Hexyloxirane Octane 1,2-oxide Octene-1,2-oxide 1-Octene epoxide 1-Octene oxide 1,2-Epoxy-n-octane 1,2-Epoxyoctane Octylene epoxide 1,2-Epoxyoktan Oktylenoxid n-Hexyloxirane 2-Hexyloxirane 1,2-Octylene oxide NSC 24246
Inchi:	InChI=1S/C8H16O/c1-2-3-4-5-6-8-7-9-8/h8H,2-7H2,1H3
InchiKey:	NJWSNNWLBMSXQR-UHFFFAOYSA-N
Formula:	C8H16O
SMILES:	CCCCCCC1CO1
Mol. weight [g/mol]:	128.21
CAS:	2984-50-1

Physical Properties

Property code	Value	Unit	Source
gf	-8.89	kJ/mol	Joback Method
hf	-267.65	kJ/mol	Joback Method
hfus	22.59	kJ/mol	Joback Method
hvap	37.83	kJ/mol	Joback Method
log10ws	-2.26		Crippen Method
logp	2.356		Crippen Method
mcvol	118.590	ml/mol	McGowan Method
pc	2875.03	kPa	Joback Method
tb	416.13	K	Joback Method
tc	594.55	K	Joback Method
tf	224.43	K	Joback Method

vc	0.462	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	247.71	J/mol×K	416.13	Joback Method
cpg	261.88	J/mol×K	445.87	Joback Method
cpg	275.37	J/mol×K	475.60	Joback Method
cpg	288.21	J/mol×K	505.34	Joback Method
cpg	300.43	J/mol×K	535.07	Joback Method
cpg	312.05	J/mol×K	564.81	Joback Method
cpg	323.10	J/mol×K	594.55	Joback Method
dvisc	0.0022201	Pa×s	224.43	Joback Method
dvisc	0.0014439	Pa×s	256.38	Joback Method
dvisc	0.0010330	Pa×s	288.33	Joback Method
dvisc	0.0007901	Pa×s	320.28	Joback Method
dvisc	0.0006345	Pa×s	352.23	Joback Method
dvisc	0.0005284	Pa×s	384.18	Joback Method
dvisc	0.0004526	Pa×s	416.13	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	336.00	K	2.30	NIST Webbook

Sources

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

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C2984501&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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume