Oxirane, [[(2-ethylhexyl)oxy]methyl]-

Other names:	[(2-Ethylhexyl)methyl]oxirane
	Propane, 1,2-epoxy-3-[(2-ethylhexyl)oxy]-
	2-Ethylhexyl glycidyl ether
	Glycidyl 2-ethylhexyl ether
	(((2-Ethylhexyl)oxy)methyl)oxirane
Inchi:	InChI=1S/C11H22O2/c1-3-5-6-10(4-2)7-12-8-11-9-13-11/h10-11H,3-9H2,1-2H3
InchiKey:	BBBUAWSVILPJLL-UHFFFAOYSA-N
Formula:	C11H22O2
SMILES:	CCCCC(CC)COCC1CO1
Mol. weight [g/mol]:	186.29
CAS:	2461-15-6

Physical Properties

Property code	Value	Unit	Source
gf	-91.07	kJ/mol	Joback Method
hf	-467.07	kJ/mol	Joback Method
hfus	28.03	kJ/mol	Joback Method
hvap	46.53	kJ/mol	Joback Method
log10ws	-2.37		Crippen Method
logp	2.618		Crippen Method
mcvol	166.730	ml/mol	McGowan Method
pc	2139.38	kPa	Joback Method
tb	506.75	K	Joback Method
tc	684.06	K	Joback Method
tf	265.47	K	Joback Method
vc	0.641	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	408.52	J/mol×K	506.75	Joback Method
cpg	425.18	J/mol×K	536.30	Joback Method
cpg	441.11	J/mol×K	565.85	Joback Method
cpg	456.31	J/mol×K	595.41	Joback Method

cpg	470.83	J/mol×K	624.96	Joback Method
cpg	484.68	J/mol×K	654.51	Joback Method
cpg	497.88	J/mol×K	684.06	Joback Method
dvisc	0.0032770	Pa×s	265.47	Joback Method
dvisc	0.0017928	Pa×s	305.68	Joback Method
dvisc	0.0011285	Pa×s	345.90	Joback Method
dvisc	0.0007822	Pa×s	386.11	Joback Method
dvisc	0.0005810	Pa×s	426.32	Joback Method
dvisc	0.0004543	Pa×s	466.54	Joback Method
dvisc	0.0003693	Pa×s	506.75	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	334.00	K	0.04	NIST Webbook

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=C2461156&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
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume