Oxirane, [(2-propenyloxy)methyl]-

Other names:	1,2-Epoxy-3-allyloxypropane
	1-Allilossi-2,3 epossipropano
	1-Allyloxy-2,3-epoxy-propaan
	1-Allyloxy-2,3-epoxypropan
	1-Allyloxy-2,3-epoxypropane
	AGE
	Ageflex AGE
	Allil-glicidil-etere
	Allyl 2,3-epoxypropyl ether
	Allyl glycidyl ether
	Allylglycidaether
	Allylglycide ether
	Ether, allyl 2,3-epoxypropyl
	Glycidyl allyl ether
	M 560
	NCI-C56666
	NSC 18596
	Oxirane, 2-[(2-propen-1-yloxy)methyl]-
	Oxyde d'allyle et de glycidyle
	Propane, 1-(allyloxy)-2,3-epoxy-
	Sipomer AGE
	UN 2219
	[(2-Propenyloxy)methyl]oxirane
Inchi:	InChI=1S/C6H10O2/c1-2-3-7-4-6-5-8-6/h2,6H,1,3-5H2
InchiKey:	LSWYGACWGAICNM-UHFFFAOYSA-N
Formula:	C6H10O2
SMILES:	C=CCOCC1CO1
Mol. weight [g/mol]:	114.14
CAS:	106-92-3

Physical Properties

Property code	Value	Unit	Source
gf	-42.89	kJ/mol	Joback Method
hf	-233.16	kJ/mol	Joback Method
hfus	17.32	kJ/mol	Joback Method
hvap	35.11	kJ/mol	Joback Method

ie	10.04	eV	NIST Webbook
ie	9.30	eV	NIST Webbook
log10ws	-0.37		Crippen Method
logp	0.588		Crippen Method
mcvol	91.980	ml/mol	McGowan Method
pc	3682.02	kPa	Joback Method
rinpol	880.00		NIST Webbook
rinpol	869.00		NIST Webbook
rinpol	869.00		NIST Webbook
rinpol	868.00		NIST Webbook
rinpol	880.00		NIST Webbook
ripol	1325.00		NIST Webbook
tb	427.20	K	NIST Webbook
tb	427.00	K	NIST Webbook
tc	573.89	K	Joback Method
tf	222.36	K	Joback Method
vc	0.348	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	178.57	J/mol×K	389.47	Joback Method
cpg	189.44	J/mol×K	420.21	Joback Method
cpg	199.78	J/mol×K	450.94	Joback Method
cpg	209.62	J/mol×K	481.68	Joback Method
cpg	218.97	J/mol×K	512.42	Joback Method
cpg	227.85	J/mol×K	543.16	Joback Method
cpg	236.30	J/mol×K	573.89	Joback Method
dvisc	0.0013120	Pa×s	222.36	Joback Method
dvisc	0.0009507	Pa×s	250.21	Joback Method
dvisc	0.0007349	Pa×s	278.06	Joback Method
dvisc	0.0005953	Pa×s	305.92	Joback Method
dvisc	0.0004995	Pa×s	333.77	Joback Method
dvisc	0.0004306	Pa×s	361.62	Joback Method
dvisc	0.0003791	Pa×s	389.47	Joback Method
hvapt	47.00	kJ/mol	371.50	NIST Webbook

Correlations

Information	Value
Property code	pvap
Equation	ln(Pvp) = A + B/(T + C)
Coeff. A	1.46433e+01
Coeff. B	-3.61678e+03
Coeff. C	-6.62630e+01
Temperature range (K), min.	313.25
Temperature range (K), max.	453.84

Sources

The Yaws Handbook of Vapor Pressure:	https://www.sciencedirect.com/book/9780128029992/the-yaws-handbook-of-vapor-pressure
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=C106923&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
hvapt:	Enthalpy of vaporization at a given temperature
ie:	Ionization energy
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
pvap:	Vapor pressure
rinpol:	Non-polar retention indices

ripol:	Polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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