Oxirane, [(phenylmethoxy)methyl]-

Other names:	Propane, 1-(benzyloxy)-2,3-epoxy-
	Benzyl glycidyl ether
	1-(Benzyloxy)-2,3-epoxypropane
	(Benzyloxymethyl)oxirane
	2-(Benzyloxymethyl)oxirane
	[(benzyloxy)methyl]benzene
Inchi:	InChI=1S/C10H12O2/c1-2-4-9(5-3-1)6-11-7-10-8-12-10/h1-5,10H,6-8H2
InchiKey:	QNYBOILAKBSWFG-UHFFFAOYSA-N
Formula:	C10H12O2
SMILES:	c1ccc(COCC2CO2)cc1
Mol. weight [g/mol]:	164.20
CAS:	2930-05-4

Physical Properties

Property code	Value	Unit	Source
gf	15.36	kJ/mol	Joback Method
hf	-138.00 ± 3.60	kJ/mol	NIST Webbook
hfus	23.00	kJ/mol	Joback Method
hvap	71.03 ± 0.43	kJ/mol	NIST Webbook
log10ws	-1.79		Crippen Method
logp	1.602		Crippen Method
mcvol	128.880	ml/mol	McGowan Method
pc	3291.59	kPa	Joback Method
tb	510.99	K	Joback Method
tc	729.15	K	Joback Method
tf	295.62	K	Joback Method
vc	0.483	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	296.52	J/mol×K	510.99	Joback Method
cpg	363.11	J/mol×K	692.79	Joback Method
cpg	351.55	J/mol×K	656.43	Joback Method

cpg	339.16	J/mol×K	620.07	Joback Method
cpg	325.89	J/mol×K	583.71	Joback Method
cpg	311.69	J/mol×K	547.35	Joback Method
cpg	373.89	J/mol×K	729.15	Joback Method
dvisc	0.0004123	Pa×s	510.99	Joback Method
dvisc	0.0004864	Pa×s	475.10	Joback Method
dvisc	0.0005896	Pa×s	439.20	Joback Method
dvisc	0.0007396	Pa×s	403.31	Joback Method
dvisc	0.0009698	Pa×s	367.41	Joback Method
dvisc	0.0013485	Pa×s	331.51	Joback Method
dvisc	0.0020314	Pa×s	295.62	Joback Method

Sources

NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C2930054&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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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