trans-1,2-Diphenylethylene oxide

Other names:	trans-Stilbene oxide
	Oxirane, 2,3-diphenyl-, trans-
	trans-Stilbene epoxide
	trans-1,2-Diphenyloxirane
	Bibenzyl, «alpha»,«alpha»'-epoxy-, trans-
	Oxirane,trans-2,3-diphenyl-
	2,3-Diphenyloxirane, (E)-
	NSC 100317
	NSC 40295
	Oxirane, 2,3-diphenyl-, (2R,3R)-rel-
	trans-2,3-Diphenyloxirane
	trans-«alpha»,«alpha»-epoxydibenzyl
Inchi:	InChI=1S/C14H12O/c1-3-7-11(8-4-1)13-14(15-13)12-9-5-2-6-10-12/h1-10,13-14H/t13-,14
InchiKey:	ARCJQKUWGAZPFX-KBPBESRZSA-N
Formula:	C14H12O
SMILES:	c1ccc(C2OC2c2ccccc2)cc1
Mol. weight [g/mol]:	196.24
CAS:	1439-07-2

Physical Properties

Property code	Value	Unit	Source
gf	258.74	kJ/mol	Joback Method
hf	61.23	kJ/mol	Joback Method
hfus	27.28	kJ/mol	Joback Method
hvap	55.42	kJ/mol	Joback Method
ie	8.60	eV	NIST Webbook
log10ws	-3.79		Crippen Method
logp	3.499		Crippen Method
mcvol	155.610	ml/mol	McGowan Method
pc	3045.68	kPa	Joback Method
tb	602.10	K	Joback Method
tc	856.76	K	Joback Method
tf	340.65	K	Joback Method
vc	0.581	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	390.41	J/mol×K	602.10	Joback Method
cpg	466.33	J/mol×K	814.32	Joback Method
cpg	453.76	J/mol×K	771.87	Joback Method
cpg	440.01	J/mol×K	729.43	Joback Method
cpg	424.95	J/mol×K	686.99	Joback Method
cpg	408.45	J/mol×K	644.54	Joback Method
cpg	477.83	J/mol×K	856.76	Joback Method
dvisc	0.0004785	Pa×s	602.10	Joback Method
dvisc	0.0005560	Pa×s	558.52	Joback Method
dvisc	0.0006627	Pa×s	514.95	Joback Method
dvisc	0.0008160	Pa×s	471.38	Joback Method
dvisc	0.0010481	Pa×s	427.80	Joback Method
dvisc	0.0014251	Pa×s	384.23	Joback Method
dvisc	0.0020960	Pa×s	340.65	Joback Method

Sources

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=C1439072&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

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
ie:	Ionization energy
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