(1R,2R)-(+)-1-Phenylpropylene oxide

Inchi: InChI=1S/C9H10O/c1-7-9(10-7)8-5-3-2-4-6-8/h2-7,9H,1H3/t7-,9+/m0/s1
InchiKey: YVCOJTATJWDGEU-IONNQARKSA-N
Formula: C9H10O
SMILES: CC1OC1c1ccccc1
Mol. weight [g/mol]: 134.18
CAS: 14212-54-5

Physical Properties

Property code	Value	Unit	Source
gf	104.23	kJ/mol	Joback Method
hf	-72.10	kJ/mol	Joback Method
hfus	20.29	kJ/mol	Joback Method
hvap	42.02	kJ/mol	Joback Method
log10ws	-2.25		Crippen Method
logp	2.146		Crippen Method
mcvol	108.920	ml/mol	McGowan Method
pc	3615.89	kPa	Joback Method
tb	477.20	K	NIST Webbook
tc	684.78	K	Joback Method
tf	257.88	K	Joback Method
vc	0.408	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	229.65	J/mol×K	461.02	Joback Method
cpg	244.82	J/mol×K	498.31	Joback Method
cpg	258.95	J/mol×K	535.61	Joback Method
cpg	272.10	J/mol×K	572.90	Joback Method
cpg	284.32	J/mol×K	610.19	Joback Method
cpg	295.68	J/mol×K	647.48	Joback Method
cpg	306.23	J/mol×K	684.78	Joback Method
dvisc	0.0014557	Pa×s	257.88	Joback Method
dvisc	0.0010842	Pa×s	291.74	Joback Method

dvisc	0.0008586	Pa×s	325.59	Joback Method
dvisc	0.0007105	Pa×s	359.45	Joback Method
dvisc	0.0006074	Pa×s	393.31	Joback Method
dvisc	0.0005323	Pa×s	427.16	Joback Method
dvisc	0.0004756	Pa×s	461.02	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14212545&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
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume