

1,2-Ethanediol, 1,2-diphenyl-, (R*,R*)-(.+/-.)-

Inchi:	InChI=1S/C14H14O2/c15-13(11-7-3-1-4-8-11)14(16)12-9-5-2-6-10-12/h1-10,13-16H/t13-
InchiKey:	IHPDTPWNFBQHEB-KBPBESRZSA-N
Formula:	C14H14O2
SMILES:	OC(c1ccccc1)C(O)c1ccccc1
Mol. weight [g/mol]:	214.26
CAS:	655-48-1

Physical Properties

Property code	Value	Unit	Source
gf	13.30	kJ/mol	Joback Method
hf	-174.25	kJ/mol	Joback Method
hfus	21.23	kJ/mol	Joback Method
hvap	83.89	kJ/mol	Joback Method
log10ws	-3.33		Crippen Method
logp	2.454		Crippen Method
mcvol	172.340	ml/mol	McGowan Method
pc	3460.21	kPa	Joback Method
tb	756.56	K	Joback Method
tc	969.50	K	Joback Method
tf	392.02	K	Joback Method
vc	0.629	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	480.61	J/molxK	756.56	Joback Method
cpg	529.13	J/molxK	934.01	Joback Method
cpg	520.86	J/molxK	898.52	Joback Method
cpg	511.94	J/molxK	863.03	Joback Method
cpg	502.29	J/molxK	827.54	Joback Method
cpg	491.87	J/molxK	792.05	Joback Method
cpg	536.81	J/molxK	969.50	Joback Method
dvisc	0.0000069	Paxs	756.56	Joback Method
dvisc	0.0000126	Paxs	695.80	Joback Method

dvisc	0.0000258	Paxs	635.05	Joback Method
dvisc	0.0000614	Paxs	574.29	Joback Method
dvisc	0.0001796	Paxs	513.53	Joback Method
dvisc	0.0007008	Paxs	452.78	Joback Method
dvisc	0.0041702	Paxs	392.02	Joback Method

Sources

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=C655481&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci9903071

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
mccvol:	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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