1,2-Ethanediol, 1-phenyl-

Other names:	Styrene glycol
	«alpha»,«beta»-Dihydroxyethylbenzene
	Phenyl glycol
	Phenylethanediol
	Phenylethylene glycol
	Styrolyl alcohol
	1-Phenyl-1,2-ethanediol
	1,2-Dihydroxy-1-phenylethane
	Phenyl-1,2-ethanediol
	1,2-Dihydroxyethylbenzene
	1,2-Ethanediol, phenyl-
	1-Fenyl-1,2-ethandiol
	Fenylglycol
	1-Phenylethylene glycol
	NSC 406601
	phenylethane-1,2-diol
Inchi:	InChI=1S/C8H10O2/c9-6-8(10)7-4-2-1-3-5-7/h1-5,8-10H,6H2
InchiKey:	PWMWNFMRSKOCEY-UHFFFAOYSA-N
Formula:	C8H10O2
SMILES:	OCC(O)c1ccccc1
Mol. weight [g/mol]:	138.16
CAS:	93-56-1

Physical Properties

Property code	Value	Unit	Source
gf	-147.19	kJ/mol	Joback Method
hf	-281.66	kJ/mol	Joback Method
hfus	15.17	kJ/mol	Joback Method
hvap	68.65	kJ/mol	Joback Method
log10ws	-1.26		Crippen Method
logp	0.712		Crippen Method
mcvol	111.560	ml/mol	McGowan Method
pc	4672.09	kPa	Joback Method
rinpol	1384.00		NIST Webbook
rinpol	1308.10		NIST Webbook
rinpol	1372.00		NIST Webbook
rinpol	1384.00		NIST Webbook

rinpol	1308.10		NIST Webbook
rinpol	1372.00		NIST Webbook
ripol	1735.00		NIST Webbook
ripol	1735.00		NIST Webbook
tb	546.20	K	NIST Webbook
tc	782.98	K	Joback Method
tf	341.20 ± 2.00	K	NIST Webbook
tf	338.65 ± 1.00	K	NIST Webbook
tf	340.15 ± 2.00	K	NIST Webbook
tf	336.00 ± 4.00	K	NIST Webbook
vc	0.407	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	269.26	J/mol×K	593.04	Joback Method
cpg	278.28	J/mol×K	624.70	Joback Method
cpg	286.77	J/mol×K	656.35	Joback Method
cpg	294.75	J/mol×K	688.01	Joback Method
cpg	302.25	J/mol×K	719.66	Joback Method
cpg	309.29	J/mol×K	751.32	Joback Method
cpg	315.89	J/mol×K	782.98	Joback Method
dvisc	0.0339541	Pa×s	312.98	Joback Method
dvisc	0.0050951	Pa×s	359.66	Joback Method
dvisc	0.0011821	Pa×s	406.33	Joback Method
dvisc	0.0003706	Pa×s	453.01	Joback Method
dvisc	0.0001443	Pa×s	499.69	Joback Method
dvisc	0.0000660	Pa×s	546.36	Joback Method
dvisc	0.0000342	Pa×s	593.04	Joback Method

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C93561&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
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