Benzene, 1,1'-[1,2-ethanediylbis(oxy)]bis-

Other names:	Ethane, 1,2-diphenoxy-
	Ethylene glycol diphenyl ether
	1,2-Diphenoxyethane
	2-Phenoxyethyl phenyl ether
Inchi:	InChI=1S/C14H14O2/c1-3-7-13(8-4-1)15-11-12-16-14-9-5-2-6-10-14/h1-10H,11-12H2
InchiKey:	XCSGHNKDXGYELG-UHFFFAOYSA-N
Formula:	C14H14O2
SMILES:	c1ccc(OCCOc2ccccc2)cc1
Mol. weight [g/mol]:	214.26
CAS:	104-66-5

Physical Properties

Property code	Value	Unit	Source
gf	81.82	kJ/mol	Joback Method
hf	-123.67	kJ/mol	Joback Method
hfus	22.47	kJ/mol	Joback Method
hvap	56.13	kJ/mol	Joback Method
ie	8.39 ± 0.05	eV	NIST Webbook
log10ws	-3.36		Crippen Method
logp	3.144		Crippen Method
mcvol	172.340	ml/mol	McGowan Method
pc	2673.54	kPa	Joback Method
rinpol	1810.60		NIST Webbook
tb	617.92	K	Joback Method
tc	850.54	K	Joback Method
tf	344.84	K	Joback Method
vc	0.639	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	423.99	J/mol×K	617.92	Joback Method
cpg	496.15	J/mol×K	811.77	Joback Method
cpg	483.91	J/mol×K	773.00	Joback Method

cpg	470.61	J/mol×K	734.23	Joback Method
cpg	456.21	J/mol×K	695.46	Joback Method
cpg	440.68	J/mol×K	656.69	Joback Method
cpg	507.36	J/mol×K	850.54	Joback Method
dvisc	0.0001160	Pa×s	617.92	Joback Method
dvisc	0.0001489	Pa×s	572.41	Joback Method
dvisc	0.0001996	Pa×s	526.89	Joback Method
dvisc	0.0002826	Pa×s	481.38	Joback Method
dvisc	0.0004305	Pa×s	435.87	Joback Method
dvisc	0.0007233	Pa×s	390.35	Joback Method
dvisc	0.0013936	Pa×s	344.84	Joback Method

Pressure Dependent Properties

Property code	Value	Unit	Pressure [kPa]	Source
tbrp	455.70	K	1.60	NIST Webbook

Sources

NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C104665&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
ie: Ionization energy
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
tb:	Normal Boiling Point Temperature
tbrp:	Boiling point at reduced pressure
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume