

1,1'-Biphenyl, 4-phenoxy-

Other names:	Ether, 4-biphenyl phenyl p-Diphenyl phenyl ether Phenoxy-4-diphenyl 4-Biphenyl phenyl ether 4-Phenoxybiphenyl 4-phenoxy-1,1'-biphenyl
Inchi:	InChI=1S/C18H14O/c1-3-7-15(8-4-1)16-11-13-18(14-12-16)19-17-9-5-2-6-10-17/h1-14H
InchiKey:	GPOYJVWVGJBMOK-UHFFFAOYSA-N
Formula:	C18H14O
SMILES:	c1ccc(Oc2ccc(-c3ccccc3)cc2)cc1
Mol. weight [g/mol]:	246.30
CAS:	3933-94-6

Physical Properties

Property code	Value	Unit	Source
gf	323.28	kJ/mol	Joback Method
hf	151.05	kJ/mol	Joback Method
hfus	25.30	kJ/mol	Joback Method
hvap	65.56	kJ/mol	Joback Method
log10ws	-5.71		Crippen Method
logp	5.146		Crippen Method
mcvol	199.070	ml/mol	McGowan Method
pc	2537.93	kPa	Joback Method
tb	718.68	K	Joback Method
tc	983.76	K	Joback Method
tf	406.63	K	Joback Method
vc	0.738	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	522.30	J/mol×K	718.68	Joback Method
cpg	594.01	J/mol×K	939.58	Joback Method
cpg	582.49	J/mol×K	895.40	Joback Method

cpg	569.66	J/mol×K	851.22	Joback Method
cpg	555.42	J/mol×K	807.04	Joback Method
cpg	539.67	J/mol×K	762.86	Joback Method
cpg	604.34	J/mol×K	983.76	Joback Method
dvisc	0.0000978	Pa×s	718.68	Joback Method
dvisc	0.0001238	Pa×s	666.67	Joback Method
dvisc	0.0001632	Pa×s	614.66	Joback Method
dvisc	0.0002264	Pa×s	562.65	Joback Method
dvisc	0.0003357	Pa×s	510.65	Joback Method
dvisc	0.0005443	Pa×s	458.64	Joback Method
dvisc	0.0009987	Pa×s	406.63	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=C3933946&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
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

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