[1,1'-Biphenyl]-2-methanol

Other names:	2-(Hydroxymethyl)biphenyl
	2-Phenylbenzyl alcohol
	2-biphenylmethanol
	Biphenyl-2-yl-methanol
	o-Phenyl benzyl alcohol
	o-phenylbenzyl alcohol
Inchi:	InChI=1S/C13H12O/c14-10-12-8-4-5-9-13(12)11-6-2-1-3-7-11/h1-9,14H,10H2
InchiKey:	VKTQADPEPIVMHK-UHFFFAOYSA-N
Formula:	C13H12O
SMILES:	OCc1ccccc1-c1ccccc1
Mol. weight [g/mol]:	184.23
CAS:	2928-43-0

Physical Properties

Property code	Value	Unit	Source
gf	136.95	kJ/mol	Joback Method
hf	-2.29	kJ/mol	Joback Method
hfus	19.70	kJ/mol	Thermochemistry of 2- and 4-biphenylmethanol
hsub	107.10 ± 1.10	kJ/mol	NIST Webbook
hvap	66.42	kJ/mol	Joback Method
log10ws	-4.22		Crippen Method
logp	2.846		Crippen Method
mcvol	152.380	ml/mol	McGowan Method
pc	3352.86	kPa	Joback Method
tb	647.36	K	Joback Method
tc	872.00	K	Joback Method
tf	362.45	K	Joback Method
vc	0.567	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	377.62	J/mol×K	647.36	Joback Method

cpg	390.71	J/mol×K	684.80	Joback Method
cpg	402.84	J/mol×K	722.24	Joback Method
cpg	414.08	J/mol×K	759.68	Joback Method
cpg	424.47	J/mol×K	797.12	Joback Method
cpg	434.08	J/mol×K	834.56	Joback Method
cpg	442.96	J/mol×K	872.00	Joback Method
dvisc	0.0004640	Pa×s	457.42	Joback Method
dvisc	0.0010619	Pa×s	409.94	Joback Method
dvisc	0.0030194	Pa×s	362.45	Joback Method
dvisc	0.0002369	Pa×s	504.90	Joback Method
dvisc	0.0001358	Pa×s	552.39	Joback Method
dvisc	0.0000850	Pa×s	599.88	Joback Method
dvisc	0.0000570	Pa×s	647.36	Joback Method
hfust	19.70	kJ/mol	324.00	NIST Webbook
hfust	18.50	kJ/mol	326.80	NIST Webbook
hsubt	106.00 ± 1.10	kJ/mol	315.00	NIST Webbook
hvapt	85.60 ± 0.60	kJ/mol	326.00	NIST Webbook

Sources

Thermochemistry of 2- and 4-biphenylmethanol: https://www.doi.org/10.1016/j.jct.2007.03.002

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=C2928430&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
hfust: Enthalpy of fusion at a given temperature
hsub: Enthalpy of sublimation at standard conditions
hsubt: Enthalpy of sublimation at a given temperature
hvap: Enthalpy of vaporization at standard conditions
hvapt: Enthalpy of vaporization at a given temperature

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