(1,1'-Biphenyl)-2,2'-dicarboxaldehyde

Other names:	Biphenyl-2,2'-dialdehyde
	Diphenaldehyde
	Diphenic dialdehyde
	2,2'-Biphenyldicarbaldehyde
	2,2'-Biphenyldicarboxaldehyde
	2,2'-Diformylbiphenyl
Inchi:	InChI=1S/C14H10O2/c15-9-11-5-1-3-7-13(11)14-8-4-2-6-12(14)10-16/h1-10H
InchiKey:	HJFGULDHUDIPDA-UHFFFAOYSA-N
Formula:	C14H10O2
SMILES:	O=Cc1ccccc1-c1ccccc1C=O
Mol. weight [g/mol]:	210.23
CAS:	1210-05-5

Physical Properties

Property code	Value	Unit	Source
gf	73.52	kJ/mol	Joback Method
hf	-53.33	kJ/mol	Joback Method
hfus	23.90	kJ/mol	Joback Method
hvap	66.07	kJ/mol	Joback Method
log10ws	-4.56		Crippen Method
logp	2.979		Crippen Method
mcvol	163.740	ml/mol	McGowan Method
pc	3149.09	kPa	Joback Method
rinpol	311.50		NIST Webbook
tb	680.36	K	Joback Method
tc	924.14	K	Joback Method
tf	409.42	K	Joback Method
vc	0.637	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	404.33	J/mol×K	680.36	Joback Method
cpg	417.19	J/mol×K	720.99	Joback Method

cpg	429.00	J/mol×K	761.62	Joback Method
cpg	439.80	J/mol×K	802.25	Joback Method
cpg	449.65	J/mol×K	842.88	Joback Method
cpg	458.63	J/mol×K	883.51	Joback Method
cpg	466.78	J/mol×K	924.14	Joback Method
dvisc	0.0016353	Pa×s	409.42	Joback Method
dvisc	0.0010119	Pa×s	454.58	Joback Method
dvisc	0.0006829	Pa×s	499.73	Joback Method
dvisc	0.0004919	Pa×s	544.89	Joback Method
dvisc	0.0003726	Pa×s	590.05	Joback Method
dvisc	0.0002936	Pa×s	635.20	Joback Method
dvisc	0.0002387	Pa×s	680.36	Joback Method

Sources

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
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C1210055&Units=SI

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
tb: Normal Boiling Point Temperature
tc: Critical Temperature
tf: Normal melting (fusion) point
vc: Critical Volume