[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-

Other names:	3,3'-Dichlorbenzidin
	3,3'-Dichloro-1,1'-biphenyl-4,4'-diamine
	3,3'-Dichloro-4,4'-biphenyldiamine
	3,3'-Dichloro-4,4'-diamino(1,1-biphenyl)
	3,3'-Dichloro-4,4'-diaminobiphenyl
	3,3'-Dichloro-4,4'-diaminodiphenyl
	3,3'-Dichloro-p,p'-bianiline
	3,3'-Dichlorobenzidina
	3,3'-Dichlorobenzidine
	3,3'-Dichlorobiphenyl-4,4'-diamine
	3,3'-dichlorobiphenyl-4,4'-ylenediamine
	4,4'-Diamino-3,3'-dichlorobiphenyl
	4,4'-Diamino-3,3'-dichlorodiphenyl
	4-(4-amino-3-chlorophenyl)-2-chloroaniline
	Benzidine, 3,3'-dichloro-
	C.I. 23060
	Curithane C 126
	Dichlorobenzidine base
	NSC 154073
	Rcra waste number U073
	o,o'-Dichlorobenzidine
Inchi:	InChI=1S/C12H10Cl2N2/c13-9-5-7(1-3-11(9)15)8-2-4-12(16)10(14)6-8/h1-6H,15-16H2
InchiKey:	HUWXDEQWWKGHRV-UHFFFAOYSA-N
Formula:	C12H10Cl2N2
SMILES:	Nc1ccc(-c2ccc(N)c(Cl)c2)cc1Cl
Mol. weight [g/mol]:	253.13
CAS:	91-94-1

Physical Properties

Property code	Value	Unit	Source
gf	345.50	kJ/mol	Joback Method
hf	172.27	kJ/mol	Joback Method
hfus	32.15	kJ/mol	Joback Method
hvap	79.56	kJ/mol	Joback Method
log10ws	-4.92		Aqueous Solubility Prediction Method
logp	3.825		Crippen Method

mcvol	176.860	ml/mol	McGowan Method
pc	3348.98	kPa	Joback Method
rinpol	395.30		NIST Webbook
rinpol	2463.00		NIST Webbook
rinpol	395.30		NIST Webbook
rinpol	2463.00		NIST Webbook
rinpol	2416.64		NIST Webbook
rinpol	2416.64		NIST Webbook
tb	767.16	K	Joback Method
tc	1037.29	K	Joback Method
tf	405.65	K	Aqueous Solubility Prediction Method
vc	0.647	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	430.72	J/mol×K	767.16	Joback Method
cpg	441.78	J/mol×K	812.18	Joback Method
cpg	451.82	J/mol×K	857.20	Joback Method
cpg	460.90	J/mol×K	902.23	Joback Method
cpg	469.11	J/mol×K	947.25	Joback Method
cpg	476.50	J/mol×K	992.27	Joback Method
cpg	483.14	J/mol×K	1037.29	Joback Method

Sources

Crippen Method: http://pubs.acs.org/doi/abs/10.1021/ci990307l
Joback Method: https://en.wikipedia.org/wiki/Joback_method
Aqueous Solubility Prediction Method: http://onschallenge.wikispaces.com/file/view/AqueousDataset002.xlsx/351826032/AqueousDa
McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C91941&Units=SI

Legend

cpg: Ideal gas heat capacity

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