

[1,1'-Biphenyl]-4,4'-diamine, N,N,N',N'-tetramethyl-

Other names:	Benzidine, N,N,N',N'-tetramethyl- N,N,N',N'-Tetramethylbenzidine 4,4'-Bis(N,N-dimethylamino)biphenyl N,N,N',N'-Tetramethyl-p,p'-benzidine [1,1'-Biphenyl]-4,4'-diamine,N,N,N'',N'-tetramethyl-
Inchi:	InChI=1S/C16H20N2/c1-17(2)15-9-5-13(6-10-15)14-7-11-16(12-8-14)18(3)4/h5-12H,1-4H
InchiKey:	YRNBWIFYFSBPAU-UHFFFAOYSA-N
Formula:	C16H20N2
SMILES:	CN(C)c1ccc(-c2ccc(N(C)C)cc2)cc1
Mol. weight [g/mol]:	240.34
CAS:	366-29-0

Physical Properties

Property code	Value	Unit	Source
gf	510.96	kJ/mol	Joback Method
hf	211.61	kJ/mol	Joback Method
hfus	30.54	kJ/mol	Joback Method
hvap	61.17	kJ/mol	Joback Method
ie	6.40	eV	NIST Webbook
ie	6.84	eV	NIST Webbook
log10ws	-3.89		Crippen Method
logp	3.486		Crippen Method
mcvol	208.740	ml/mol	McGowan Method
pc	2212.45	kPa	Joback Method
tb	653.68	K	Joback Method
tc	878.39	K	Joback Method
tf	412.90	K	Joback Method
vc	0.751	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	548.86	J/molxK	653.68	Joback Method
cpg	567.44	J/molxK	691.13	Joback Method

cpg	584.70	J/mol×K	728.58	Joback Method
cpg	600.72	J/mol×K	766.04	Joback Method
cpg	615.58	J/mol×K	803.49	Joback Method
cpg	629.36	J/mol×K	840.94	Joback Method
cpg	642.14	J/mol×K	878.39	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=C366290&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
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
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume

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