1,4-Benzenediamine, N,N-dimethyl-

Other names:	p-Phenylenediamine, N,N-dimethyl-
	p-(Dimethylamino)aniline
	p-(Dimethylamino)phenylamine
	p-Amino-N,N-dimethylaniline
	p-Aminodimethylaniline
	C.I. 76075
	Dimethyl-p-phenylenediamine
	DMPD
	N,N-Dimethyl-p-benzenediamine
	N,N-Dimethyl-p-phenylenediamine
	N,N-Dimethyl-1,4-benzenediamine
	N,N-Dimethyl-1,4-phenylenediamine
	4-(Dimethylamino)aniline
	4-Amino-N,N-dimethylaniline
	Dimethyl-paraphenylenediamine
	N,N-Dimethyl-p-fenylendiamin
	1,4-Benzenediamine, N1,N1-dimethyl-
	4-(Dimethylamino)benzenamine
	NSC 1493
	p-Phenylenediamine, N,N'-dimethyl-
Inchi:	InChI=1S/C8H12N2/c1-10(2)8-5-3-7(9)4-6-8/h3-6H,9H2,1-2H3
InchiKey:	BZORFPDSXLZWJF-UHFFFAOYSA-N
Formula:	C8H12N2
SMILES:	CN(C)c1ccc(N)cc1
Mol. weight [g/mol]:	136.19
CAS:	99-98-9

Physical Properties

Property code	Value	Unit	Source
affp	955.00	kJ/mol	NIST Webbook
basg	928.40	kJ/mol	NIST Webbook
gf	296.49	kJ/mol	Joback Method
hf	117.93	kJ/mol	Joback Method
hfus	18.35	kJ/mol	Joback Method
hvap	49.02	kJ/mol	Joback Method
ie	6.46	eV	NIST Webbook
ie	6.46 ± 0.02	eV	NIST Webbook

log10ws	-1.01		Crippen Method
logp	1.335		Crippen Method
mcvol	119.780	ml/mol	McGowan Method
pc	3834.03	kPa	Joback Method
rinpol	1377.00		NIST Webbook
tb	536.20	K	NIST Webbook
tb	535.45 ± 2.00	K	NIST Webbook
tc	720.04	K	Joback Method
tf	334.59	K	Joback Method
vc	0.422	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	260.81	J/mol×K	499.07	Joback Method
cpg	274.36	J/mol×K	535.90	Joback Method
cpg	287.05	J/mol×K	572.73	Joback Method
cpg	298.92	J/mol×K	609.56	Joback Method
cpg	310.01	J/mol×K	646.38	Joback Method
cpg	320.35	J/mol×K	683.21	Joback Method
cpg	329.99	J/mol×K	720.04	Joback Method

Sources

McGowan Method: http://link.springer.com/article/10.1007/BF02311772
NIST Webbook: http://webbook.nist.gov/cgi/cbook.cgi?ID=C99989&Units=SI
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

Legend

affp: Proton affinity
basg: Gas basicity
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
rinpol:	Non-polar retention indices
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume