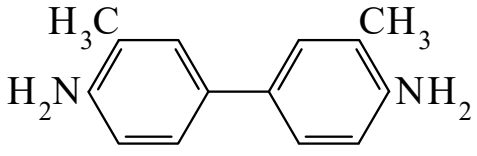
>>**Entry Name: 4,4'-Diamino-3,3'-dimethylbiphenyl**
Synonym(s): 3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diamine, 9CI. 3,3'-Dimethylbenzidine, 8CI. *p*,*p*'-Diamino-*m*,*m*'-bitolyl. *o*-Tolidine



CAS Registry Number: 119-93-7
Related CAS Registry Numbers(s): 612-82-8

Molecular Formula: $C_{14}H_{16}N_2$
Molecular Weight: 212.294
Accurate Mass: 212.131348
Percentage Composition: C 79.21%; H 7.60%; N 13.20%
Use/Importance: Used as 0.05% MeOH soln. for photometric detn. of Cl_2 (ε 34000), Br_2, Ce(*IV*), Mn(*IV*). Curing agent for urethane resins. Monomer for polyamides and polyimides
Physical Description: Leaflets
Melting Point: Mp 131-132°
Solubility: Sol. MeOH, EtOH, Et_2O; sl. sol. H_2O
Hazard & Toxicity: Possible human carcinogen. Skin and eye irritant. LD_{50} (rat, orl) 404 mg/kg. Exp. carcinogen

Aldrich: T3547-5
Fluka: 89584
Rare Chemicals Library: S43970-3
Sigma: T8533
Supelco: 44-2372

>>**Derivative:** *N*,*N*,*N*',*N*'-Di-Ac

Molecular Formula: $C_{18}H_{20}N_2O_2$
Molecular Weight: 296.368
Accurate Mass: 296.152478
Percentage Composition: C 72.95%; H 6.80%; N 9.45%; O 10.80%
Melting Point: Mp 318-319°

>>**Derivative:** *N*,*N*'-Diacetoacetyl
see Naphtanilide G, NWK65-D

>>**Derivative:** *N*,*N*,*N*',*N*'-Benzoyl

Molecular Formula: $C_{28}H_{24}N_2O_2$
Molecular Weight: 420.51
Accurate Mass: 420.183778
Percentage Composition: C 79.98%; H 5.75%; N 6.66%; O 7.61%
Melting Point: Mp 268-270°

>>**Derivative:** *N*,*N*,*N*',*N*'-Tetra-Me
Synonym(s): 4,4'-Bis(dimethylamino)-3,3'-dimethylbiphenyl. *N*,*N*,*N*',*N*'-Tetramethyl-3,3'-dimethylbenzidine. Tetron

Molecular Formula: $C_{18}H_{24}N_2$
Molecular Weight: 268.401
Accurate Mass: 268.193948
Percentage Composition: C 80.55%; H 9.01%; N 10.44%
Use/Importance: Used as a 0.1% soln. in 5% H_2SO_4 for photometric detn. of Au (λ_{max} 480 nm), Ce (λ_{max} 470 nm, ε 25300); redox indicator
Physical Description: Cryst.
Other Data: E° + 0.948 V