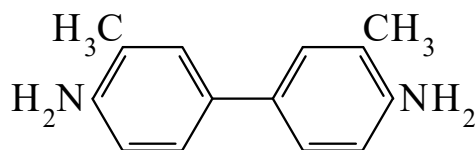




>>Entry Name: 4,4'-Diamino-3,3'-dimethylbiphenyl

Synonym(s): 3,3'-Dimethyl[1,1'-biphenyl]-4,4'-diamine, 9Cl. 3,3'-Dimethylbenzidine, 8Cl. *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<sub>14</sub>H<sub>16</sub>N<sub>2</sub>

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<sub>2</sub> (ε 34000), Br<sub>2</sub>, 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<sub>2</sub>O; sl. sol. H<sub>2</sub>O

Hazard & Toxicity: Possible human carcinogen. Skin and eye irritant. LD<sub>50</sub> (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<sub>18</sub>H<sub>20</sub>N<sub>2</sub>O<sub>2</sub>

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<sub>28</sub>H<sub>24</sub>N<sub>2</sub>O<sub>2</sub>

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<sub>18</sub>H<sub>24</sub>N<sub>2</sub>

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<sub>2</sub>SO<sub>4</sub> for photometric detn. of Au (λ<sub>max</sub> 480 nm), Ce (λ<sub>max</sub> 470 nm, ε 25300); redox indicator

Physical Description: Cryst.

Other Data: E° + 0.948 V