



>>Entry Name: 4-Aminodiphenylamine

Synonym(s): *N*-Phenyl-1,4-benzenediamine, 9Cl. *N*-Phenyl-*p*-phenylenediamine. Diphenyl black base P. *p*-Semidine. *N*,4'-Bianiline. Variamine blue RT. Diphenyl black

CAS Registry Number: 101-54-2

Molecular Formula: C₁₂H₁₂N₂

Molecular Weight: 184.24

Accurate Mass: 184.100048

Percentage Composition: C 78.23%; H 6.56%; N 15.20%

Use/Importance: Used in calico printing, dyeing of fur. Used as redox indicator. Undergoes chem. or electrochem. homopolym.

Physical Description: Needles (EtOH), cryst. (petrol)

Melting Point: Mp 66°. Mp 75°

Boiling Point: Bp_{0.026} 155°

Solubility: Sol. EtOH, Et₂O, acids; insol. H₂O

Other Data: E° +0.76V

Hazard & Toxicity: Severe eye irritant. LD₅₀ (rat, orl) 464 mg/kg

Aldrich: 24139-3

Fluka: 7920

Rare Chemicals Library: S40549-3

Sigma: A5379

>>Derivative: Hydrochloride

CAS Registry Number: 2198-59-6

Extra CAS Registry Numbers(s): 56426-15-4

Melting Point: Mp 264-266°

Aldrich: 28460-2

Sigma: A7657

>>Derivative: *N*-Ac

Synonym(s): 4-(Acetylamino)diphenylamine

CAS Registry Number: 38674-90-7

Molecular Formula: C₁₄H₁₄N₂O

Molecular Weight: 226.277

Accurate Mass: 226.110613

Percentage Composition: C 74.31%; H 6.24%; N 12.38%; O 7.07%

Use/Importance: Used as redox indicator

Physical Description: Leaflets or needles

Melting Point: Mp 158°

Solubility: Sol. EtOH, acids; spar. sol. H₂O

Other Data: E° + 0.70V

>>Derivative: *N*-Isopropyl

Synonym(s): *N*-(1-Methylethyl)-*N'*-phenyl-1,4-benzenediamine, 9Cl. Diafen FP. Accinox ZA. IPPD

CAS Registry Number: 101-72-4

Molecular Formula: C₁₅H₁₈N₂

Molecular Weight: 226.321

Accurate Mass: 226.146998

Percentage Composition: C 79.61%; H 8.02%; N 12.38%

Use/Importance: Antioxidant stabiliser for rubbers and other polymers

Physical Description: Black flakes

Melting Point: Mp 79.5-80°

Solubility: Insol. H₂O; sol. arom. solvs.

Hazard & Toxicity: Eye irritant. LD₅₀ (rat, orl) 555 mg/kg

Rare Chemicals Library: S36295-6