



>>Entry Name: 4-Amino-4'-hydroxydiphenylamine

Molecular Formula: C₁₂H₁₂N₂O

Molecular Weight: 200.24

Accurate Mass: 200.094963

Percentage Composition: C 71.98%; H 6.04%; N 13.99%; O 7.99%

Physical Description: Plates (H₂O or toluene)

Melting Point: Mp 166°

pKa Value: pK_{a1} 6.6 (5.9)

>>Derivative: Sulfate (2:1)

Synonym(s): C.I. Azoic diazo compound 35. C.I. 37255

Use/Importance: Used as 1% aq. soln. as redox indicator

pKa Value: pK_{a1} 6.6 (30°)

Other Data: E° +0.712 V (30°)

>>Derivative: Me ether

Synonym(s): *N*-(4-Methoxyphenyl)-1,4-benzenediamine, 9Cl. 4-Amino-4'-methoxydiphenylamine. Variamine blue. Variamine blue B

CAS Registry Number: 101-64-4

Molecular Formula: C₁₃H₁₄N₂O

Molecular Weight: 214.266

Accurate Mass: 214.110613

Percentage Composition: C 72.87%; H 6.59%; N 13.07%; O 7.47%

Use/Importance: Used as 0.1-1% aq. soln. as a metallochromic indicator for titrimetric detn. of Cd, Cu, Fe(III), Pb, V(V), Zn; redox indicator

Physical Description: Needles (petrol)

Melting Point: Mp 102°

Boiling Point: Bp₁₂ 238°

>>Derivative: Me ether, hydrochloride

CAS Registry Number: 3566-44-7

Melting Point: Mp 245 dec.°

Aldrich: 21702-6

Sigma: A0647

Other: PB M09180

>>Derivative: Et ether

Synonym(s): *N*-(4-Ethoxyphenyl)-1,4-benzenediamine. 4-Amino-4'-ethoxydiphenylamine

CAS Registry Number: 60457-49-0

Molecular Formula: C₁₄H₁₆N₂O

Molecular Weight: 228.293

Accurate Mass: 228.126263

Percentage Composition: C 73.66%; H 7.06%; N 12.27%; O 7.01%

Physical Description: Needles (petrol)

Melting Point: Mp 98-99°

References:

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Erdey, L. *et al.*, *Fresenius' Z. Anal. Chem.*, 1953, **137**, 140, (use)

Flaschka, H., *Mikrochim. Acta*, 1954, 361, (detn, Fe)

Wehber, P., *Mikrochim. Acta*, 1955, 927, (detn, Cu)

Erdey, L. *et al.*, *Anal. Chim. Acta*, 1957, **17**, 458, (detn, Cd, Pb, Zn)

Jach, Z. *et al.*, *Fresenius' Z. Anal. Chem.*, 1957, **154**, 185, (use)

Nakasaka, N. *et al.*, *Anal. Chim. Acta*, 1966, **36**, 422, (detn, Fe)

Tanaka, M. *et al.*, *Anal. Chim. Acta*, 1966, **36**, 515, (detn, V)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972