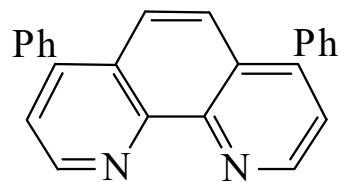




>>Entry Name: 4,7-Diphenyl-1,10-phenanthroline

Synonym(s): Bathophenanthroline



CAS Registry Number: 1662-01-7

Type of Compound Code(s): PS8300 PA2000 PM6150

Molecular Formula: $C_{24}H_{16}N_2$

Molecular Weight: 332.404

Accurate Mass: 332.131348

Percentage Composition: C 86.72%; H 4.85%; N 8.43%

Use/Importance: Used for extraction-photometric detn. of Fe(II) ($\lambda_{\max}$ 533 nm, ϵ 22400, $CHCl_3$)

Physical Description: Cryst. (C_6H_6)

Melting Point: Mp 215-216°

Solubility: Sol. EtOH, Me_2CO , C_6H_6 ; spar. sol. H_2O

Other Data: Sulfonated derivs. with greater soly. are often substituted

Aldrich: 13315-9

Fluka: 11880

Sigma: B1250

References:

Aldrich Library of ^{13}C and 1H FT NMR Spectra, 1992, **3**, 477C, (nmr)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 891C, (ir)

Sigma-Aldrich Library of Stains, Dyes and Indicators, 265

Case, F.H., *J.O.C.*, 1951, **16**, 1541, (synth)

Smith, G.F. *et al.*, *Analyst (London)*, 1952, **77**, 418, (use)

Clark, L.J. *et al.*, *Anal. Chem.*, 1962, **34**, 348, (detn, Fe)

Penner, E.M. *et al.*, *Talanta*, 1962, **9**, 1027, (detn, Fe)

Marczenko, Z., *Separation and Spectrophotometric Determination of Elements*, Horwood, Chichester, 1986, 333