



>>Entry Name: 1-Methyl-1-phenylhydrazine, 9CI, 8CI

CAS Registry Number: 618-40-6

PhNMeNH₂

Molecular Formula: C₇H₁₀N₂

Molecular Weight: 122.169

Accurate Mass: 122.084398

Percentage Composition: C 68.82%; H 8.25%; N 22.93%

Use/Importance: Reagent for pptn. and characterisation of sugars

Physical Description: Oil which darkens on standing

Boiling Point: Bp₁₃ 106-109°

Solubility: Misc. EtOH, Et₂O, CHCl₃, C₆H₆, spar. sol. H₂O

pKa Value: pK_a 4.98 (25°)

Refractive Index: n_D²² 1.5824

Other Data: Reduces Fehling's soln.

Aldrich: 17026-7

Fluka: 68670

>>Derivative: N'-Ac

Synonym(s): Acetic acid 2-methyl-2-phenylhydrazide, 9CI

CAS Registry Number: 38604-68-1

Molecular Formula: C₉H₁₂N₂O

Molecular Weight: 164.207

Accurate Mass: 164.094963

Percentage Composition: C 65.83%; H 7.37%; N 17.06%; O 9.74%

Melting Point: Mp 92-93°

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

Synonym(s): Acetic acid 1-acetyl-2-methyl-2-phenylhydrazide, 9CI

CAS Registry Number: 53645-93-5

Molecular Formula: C₁₁H₁₄N₂O₂

Molecular Weight: 206.244

Accurate Mass: 206.105528

Percentage Composition: C 64.06%; H 6.84%; N 13.58%; O 15.52%

Physical Description: Oil

>>Derivative: N'-Benzoyl

Synonym(s): Benzoic acid 2-methyl-2-phenylhydrazide, 9CI

CAS Registry Number: 33008-18-3

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%

Physical Description: Cryst. (MeOH)

Melting Point: Mp 157-158.5°

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **1**, 1257D, (*ir*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1162A, (*ir*)

Org. Synth., Coll. Vol., 2, 1943, 418, (*synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1967, **1**, 694

Hayes, B.T. *et al.*, *J.C.S.(C)*, 1970, 1088, (*synth*)

Gillis, R.G., *Org. Mass Spectrom.*, 1971, **5**, 1107, (*ms*)

Lerch, U. *et al.*, *Synthesis*, 1983, 157, (*synth*)

Smith, R.F. *et al.*, *Synth. Commun.*, 1986, **16**, 585, (*synth*, *pmr*)

Gonzalez, A., *Synth. Commun.*, 1988, **18**, 1225, (*synth*)