



>>Entry Name: (4-Nitrophenyl)hydrazine, 9CI

CAS Registry Number: 100-16-3

Molecular Formula: C₆H₇N₃O₂

Molecular Weight: 153.14

Accurate Mass: 153.053827

Percentage Composition: C 47.06%; H 4.61%; N 27.44%; O 20.90%

Use/Importance: Reagent for the detn. of carbonyl compds. Used as 0.3% soln. in EtOH as acid-base indicator (pH range: 2.5-3.0; colour change: colourless → yellow)

Physical Description: Orange-red leaflets or needles (EtOH)

Melting Point: Mp 157°

Solubility: Sol. Et₂O, CHCl₃; mod. sol. EtOH

pKa Value: pK_{a1} 2.7

Hazard & Toxicity: Irritant

Aldrich: 11468-5

Fluka: 73700

Sigma: N8880

>>Derivative: Hydrochloride

CAS Registry Number: 636-99-7

Extra CAS Registry Numbers(s): 56413-74-2

Melting Point: Mp 196-197°. Mp 212°

>>Derivative: Picrate

Physical Description: Red needles (H₂O)

Melting Point: Mp 119-120°

>>Derivative: N²-Ac

Synonym(s): Acetic acid 2-(4-nitrophenyl)hydrazide, 9CI. 1-Acetyl-2-(4-nitrophenyl)hydrazine

CAS Registry Number: 2719-13-3

Molecular Formula: C₈H₉N₃O₃

Molecular Weight: 195.177

Accurate Mass: 195.064392

Percentage Composition: C 49.23%; H 4.65%; N 21.53%; O 24.59%

Use/Importance: Acid-base indicator (pH range 10.0-11.6: colour change orange → red)

Rare Chemicals Library: S38892-0

References:

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Skripkina, V.T. *et al.*, *CA*, 1966, **65**, 7081, (synth)

Rappoport, Z. *et al.*, *J.C.S.(B)*, 1968, 277, (uv)

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