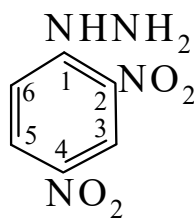




>>Entry Name: (2,4-Dinitrophenyl)hydrazine, 9Cl, 8Cl

Synonym(s): DNPH. Brady's reagent



CAS Registry Number: 119-26-6

Type of Compound Code(s): PS7850 PG5500 PG5150

Molecular Formula: C₆H₆N₄O₄

Molecular Weight: 198.138

Accurate Mass: 198.038906

Percentage Composition: C 36.37%; H 3.05%; N 28.28%; O 32.30%

Use/Importance: Reagent for characterisation of carbonyl compds.; also effects dehydrohalogenation of α -halogeno ketones etc. Acid-base indicator (pH range: 7.6-9.6; colour change: red $\rightarrow$ yellow)

Physical Description: Blue-red cryst. with violet fluor.

Melting Point: Mp 198 dec. $^{\circ}$ (194 $^{\circ}$)

pKa Value: pK_a 9.1 (25 $^{\circ}$)

Hazard & Toxicity: Eye and skin irritant. Symptoms of exposure can be delayed. Can cause methaemoglobinaemia. LD₅₀ 654 mg/kg. Potential mutagen

Aldrich: D19930-3

Fluka: 42210

Sigma: D2630

>>Derivative: N-Ac

Molecular Formula: C₈H₈N₄O₅

Molecular Weight: 240.175

Accurate Mass: 240.049471

Percentage Composition: C 40.01%; H 3.36%; N 23.33%; O 33.31%

Physical Description: Yellow needles (EtOH aq.)

Melting Point: Mp 197-198 $^{\circ}$

>>Derivative: N-Benzoyl

Molecular Formula: C₁₃H₁₀N₄O₅

Molecular Weight: 302.246

Accurate Mass: 302.065121

Percentage Composition: C 51.66%; H 3.33%; N 18.54%; O 26.47%

Physical Description: Orange-red leaflets (EtOH)

Melting Point: Mp 206-207 $^{\circ}$

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