



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

**CAS Registry Number:** 618-40-6

PhNMeNH<sub>2</sub>

**Molecular Formula:** C<sub>7</sub>H<sub>10</sub>N<sub>2</sub>

**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:** Bp<sub>13</sub> 106-109°

**Solubility:** Misc. EtOH, Et<sub>2</sub>O, CHCl<sub>3</sub>, C<sub>6</sub>H<sub>6</sub>, spar. sol. H<sub>2</sub>O

**pKa Value:** pK<sub>a</sub> 4.98 (25°)

**Refractive Index:** n<sub>D</sub><sup>22</sup> 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:** C<sub>9</sub>H<sub>12</sub>N<sub>2</sub>O

**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:** C<sub>11</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub>

**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:** C<sub>14</sub>H<sub>14</sub>N<sub>2</sub>O

**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:

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

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