



**>>Entry Name: 1-Phenylsemicarbazide**

**Synonym(s):** 2-Phenylhydrazinecarboxamide, 9Cl. **Phenicarbazide**, INN. 1-Carbamyl-2-phenylhydrazine. Carbaphen. **Cryogenine**‡. Kryogenin. Phenygenine

**CAS Registry Number:** 103-03-7



**Molecular Formula:** C<sub>7</sub>H<sub>9</sub>N<sub>3</sub>O

**Molecular Weight:** 151.168

**Accurate Mass:** 151.074562

**Percentage Composition:** C 55.62%; H 6.00%; N 27.80%; O 10.58%

**Use/Importance:** Antipyretic, analgesic

**Physical Description:** Leaflets (H<sub>2</sub>O or EtOH aq.)

**Melting Point:** Mp 172°

**Calculated Log P Data:** Log P 0.12 (calc)

**Hazard & Toxicity:** Exp. neoplastic agent

**Aldrich:** 24590-9

**Fluka:** 79140

**Rare Chemicals Library:** S57315-9

**>>Derivative: 4-N-Ac**

**Molecular Formula:** C<sub>9</sub>H<sub>11</sub>N<sub>3</sub>O<sub>2</sub>

**Molecular Weight:** 193.205

**Accurate Mass:** 193.085127

**Percentage Composition:** C 55.95%; H 5.74%; N 21.75%; O 16.56%

**Physical Description:** Plates (EtOH)

**Melting Point:** Mp 196-197 dec.°

**>>Derivative: 1-N-Me**

**CAS Registry Number:** 65119-31-5

**Molecular Formula:** C<sub>8</sub>H<sub>11</sub>N<sub>3</sub>O

**Molecular Weight:** 165.194

**Accurate Mass:** 165.090212

**Percentage Composition:** C 58.17%; H 6.71%; N 25.44%; O 9.69%

**Melting Point:** Mp 154-155°

**>>Derivative: 1-N-Et**

**CAS Registry Number:** 20049-87-0

**Molecular Formula:** C<sub>9</sub>H<sub>13</sub>N<sub>3</sub>O

**Molecular Weight:** 179.221

**Accurate Mass:** 179.105862

**Percentage Composition:** C 60.32%; H 7.31%; N 23.45%; O 8.93%

**Physical Description:** Plates (EtOH aq.)

**Melting Point:** Mp 151°

**>>Derivative: 1-N-Et, 4-N-nitroso**

**Molecular Formula:** C<sub>9</sub>H<sub>12</sub>N<sub>4</sub>O<sub>2</sub>

**Molecular Weight:** 208.219

**Accurate Mass:** 208.096026

**Percentage Composition:** C 51.92%; H 5.81%; N 26.91%; O 15.37%

**Physical Description:** Yellow needles (Me<sub>2</sub>CO)

**Melting Point:** Mp 86.5 dec.°

**References:**