



>>Entry Name: 4-Phenylsemicarbazide

Synonym(s): *N*-Phenylhydrazinecarboxamide, 9CI

CAS Registry Number: 537-47-3



Molecular Formula: $\text{C}_7\text{H}_9\text{N}_3\text{O}$

Molecular Weight: 151.168

Accurate Mass: 151.074562

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

Use/Importance: Reagent for the identification of aldehydes and ketones

Physical Description: Plates (H_2O), needles (C_6H_6)

Melting Point: Mp 128°

Aldrich: P3480-8

Fluka: 79150

>>Derivative: Hydrochloride

CAS Registry Number: 5441-14-5

Physical Description: Prisms

Melting Point: Mp 215°

Aldrich: 22160-0

>>Derivative: 2-*N*-Me

CAS Registry Number: 19102-24-0

Molecular Formula: $\text{C}_8\text{H}_{11}\text{N}_3\text{O}$

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 93-94°

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

CAS Registry Number: 6297-20-7

Molecular Formula: $\text{C}_9\text{H}_{13}\text{N}_3\text{O}$

Molecular Weight: 179.221

Accurate Mass: 179.105862

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

Melting Point: Mp 108°

Rare Chemicals Library: S60628-6

References:

Aldrich Library of ^{13}C and ^1H FT NMR Spectra, 1992, **2**, 1418A, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 386A; 386D, (*ir*)

Org. Synth., Coll. Vol., 1, 1932, 439, (*synth*)

Sah, P.P.T. *et al.*, *J. Chin. Chem. Soc. (Peking)*, 1934, **2**, 32; *CA*, **28**, 3713, (*use*)