



>>Entry Name: *N*-Benzylhydroxylamine

Synonym(s): *N*-Hydroxybenzenemethanamine, 9Cl

CAS Registry Number: 622-30-0

PhCH₂NHOH

Molecular Formula: C₇H₉NO

Molecular Weight: 123.154

Accurate Mass: 123.068414

Percentage Composition: C 68.27%; H 7.37%; N 11.37%; O 12.99%

Use/Importance: Antioxidant. Used in intramolecular nitron-alkene cycloadditions

Physical Description: Cryst. (petrol)

Melting Point: Mp 57°

Fluka: 13454

Sigma: B2902

>>Derivative: Hydrochloride

CAS Registry Number: 29601-98-7

Melting Point: Mp 110°

Aldrich: 36518-1

>>Derivative: *N*-Formyl

Molecular Formula: C₈H₉NO₂

Molecular Weight: 151.165

Accurate Mass: 151.063329

Percentage Composition: C 63.57%; H 6.00%; N 9.27%; O 21.17%

Physical Description: Needles (Et₂O/petrol)

Melting Point: Mp 49-50°

>>Derivative: *N*-Ac

Molecular Formula: C₉H₁₁NO₂

Molecular Weight: 165.191

Accurate Mass: 165.078979

Percentage Composition: C 65.44%; H 6.71%; N 8.48%; O 19.37%

Physical Description: Plates

Melting Point: Mp 124°

>>Derivative: *N*-Benzoyl

Molecular Formula: C₁₄H₁₃NO₂

Molecular Weight: 227.262

Accurate Mass: 227.094629

Percentage Composition: C 73.99%; H 5.77%; N 6.16%; O 14.08%

Physical Description: Needles (Et₂O)

>>Derivative: *N*-Nitroso

Molecular Formula: C₇H₈N₂O₂

Molecular Weight: 152.152

Accurate Mass: 152.058578

Percentage Composition: C 55.26%; H 5.30%; N 18.41%; O 21.03%

Melting Point: Mp 77-78°

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **2**, 564A, (*nmr*)

Feuer, H. *et al.*, *J.A.C.S.*, 1962, **84**, 3771, (*synth*)

Feuer, H. *et al.*, *J.O.C.*, 1965, **30**, 2877, (*synth*)

Isowa, Y. *et al.*, *Bull. Chem. Soc. Jpn.*, 1974, **47**, 720, (*ir, synth*)

Fieser and Fieser's Reagents for Organic Synthesis, Wiley, 1981, **9**, 42; 1986, **12**, 13, (*use*)

Maskill, H. *et al.*, *J.A.C.S.*, 1987, **109**, 2062, (*synth, deriv, pmr*)

Kawakani, T. *et al.*, *Bull. Chem. Soc. Jpn.*, 2000, **73**, 2423-2444, (*synth*)