



>>Entry Name: 1,1-Diphenyl-2-propanone, 9CI

Synonym(s): 1,1-Diphenylacetone. Benzhydryl methyl ketone. α -Acetodiphenylmethane

CAS Registry Number: 781-35-1

$\text{Ph}_2\text{CHCOCH}_3$

Molecular Formula: $\text{C}_{15}\text{H}_{14}\text{O}$

Molecular Weight: 210.275

Accurate Mass: 210.104465

Percentage Composition: C 85.68%; H 6.71%; O 7.61%

Physical Description: Dimorphic; stable form, spangles (EtOH)

Melting Point: Mp 46° (labile). Mp 62-63° (stable)

Boiling Point: Bp₂ 142-144°

Aldrich: D20440-4

Fluka: 42685

>>Derivative: Oxime

CAS Registry Number: 6337-69-5

Molecular Formula: $\text{C}_{15}\text{H}_{15}\text{NO}$

Molecular Weight: 225.29

Accurate Mass: 225.115364

Percentage Composition: C 79.97%; H 6.71%; N 6.22%; O 7.10%

Melting Point: Mp 165°

>>Derivative: Phenylhydrazone

Physical Description: Needles (C_6H_6)

Melting Point: Mp 131°

>>Derivative: 2,4-Dinitrophenylhydrazone

Physical Description: Yellow needles

Melting Point: Mp 142.5-143°

>>Derivative: Semicarbazone

Melting Point: Mp 170°

References:

Aldrich Library of ^{13}C and ^1H FT NMR Spectra, 1992, **2**, 790A, (*nmr*)

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1C, (*ir*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1222B, (*ir*)

Org. Synth., Coll. Vol., 3, 1955, 343, (*synth*)

Cragoe, E.I. *et al.*, *J.O.C.*, 1958, **23**, 971

McKillop, A. *et al.*, *J.A.C.S.*, 1973, **95**, 3635

Haller, R. *et al.*, *Arch. Pharm. (Weinheim, Ger.)*, 1974, **307**, 116, (*pmr*)

Bunce, R.A. *et al.*, *Synth. Commun.*, 1990, **20**, 3007, (*synth*)