>>**Entry Name: 1-Phenyl-1-pentanone,** 9CI
Synonym(s): Valerophenone, 8CI. *n*-Butyl phenyl ketone. 1-Benzoylbutane

CAS Registry Number: 1009-14-9

$PhCOCH_2CH_2CH_2CH_3$

Molecular Formula: $C_{11}H_{14}O$
Molecular Weight: 162.231
Accurate Mass: 162.104465
Percentage Composition: C 81.44%; H 8.70%; O 9.86%
Biological Source: Found in tobacco smoke, oakmoss and celery
Physical Description: Liq.
Boiling Point: Bp_{25} 135-140°

Aldrich: V65-9
Fluka: 94595
Sigma: V8753

>>**Derivative:** Oxime

CAS Registry Number: 69060-55-5
Molecular Formula: $C_{11}H_{15}NO$
Molecular Weight: 177.246
Accurate Mass: 177.115364
Percentage Composition: C 74.54%; H 8.53%; N 7.90%; O 9.03%
Physical Description: Needles (EtOH aq. or petrol)
Melting Point: Mp 52-52.5°
Boiling Point: Bp_{13} 163-165°
Solubility: Sol. EtOH, C_6H_6, spar. sol. petrol

>>**Derivative:** Semicarbazone
Synonym(s): 2-(1-Phenylpentylidene)hydrazinecarboxamide

Physical Description: Needles (EtOH)
Melting Point: Mp 166° (157-157.5°)

>>**Derivative:** 2,4-Dinitrophenylhydrazone

Physical Description: Orange-red cryst. (EtOH)
Melting Point: Mp 123-124° (166°)

References:

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **2**, 803B, *(nmr)*
Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 9C, *(ir)*
Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1229C, *(ir)*
Pfeiffer, P. *et al.*, *J. Prakt. Chem.*, 1924, **108**, 341, *(oxime)*
Shriner, R.L. *et al.*, *J.A.C.S.*, 1930, **52**, 1267, *(synth)*
Milstein, D. *et al.*, *J.A.C.S.*, 1978, **100**, 3636, *(synth)*
Yamashita, M. *et al.*, *Tet. Lett.*, 1978, 761, *(synth)*