



>>Entry Name: 4-Fluorobenzophenone

Synonym(s): 4-Fluorophenylphenylmethanone, 9CI. 4-Fluorophenyl phenyl ketone

CAS Registry Number: 345-83-5

Structure by analogy with 2-Fluorobenzophenone, [DTM78-S](#)

Molecular Formula: C₁₃H₉FO

Molecular Weight: 200.212

Accurate Mass: 200.063743

Percentage Composition: C 77.99%; H 4.53%; F 9.49%; O 7.99%

Physical Description: Cryst. (petrol)

Melting Point: Mp 48.2-48.7° (43-45°)

Boiling Point: Bp₁₃ 159-161°

Aldrich: F720-2

>>Derivative: Oxime

Molecular Formula: C₁₃H₁₀FNO

Molecular Weight: 215.226

Accurate Mass: 215.074642

Percentage Composition: C 72.55%; H 4.68%; F 8.83%; N 6.51%; O 7.43%

Melting Point: Mp 135°

>>Derivative: Phenylhydrazone

Melting Point: Mp 105°

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 60D, (*ir*)

Aldrich Library of 13C and 1H FT NMR Spectra, 1992, **2**, 888A, (*nmr*)

Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 1267C, (*ir*)

Bergmann, E. *et al.*, *J. Prakt. Chem.*, 1933, **135**, 245-266, (*synth, oxime*)

Moriconi, E.J. *et al.*, *J.A.C.S.*, 1952, **84**, 3928-3934, (*uv, ir*)

Adams, D.J. *et al.*, *Synth. Commun.*, 1998, **28**, 4295-4301, (*synth, ms, F-19 nmr*)