



>>Entry Name: 1-Fluoro-2-propanone, 9CI, 8CI

Synonym(s): Fluoroacetone

CAS Registry Number: 430-51-3

$\text{H}_3\text{CCOCH}_2\text{F}$

Molecular Formula: $\text{C}_3\text{H}_5\text{FO}$

Molecular Weight: 76.07

Accurate Mass: 76.032443

Percentage Composition: C 47.37%; H 6.62%; F 24.97%; O 21.03%

Biological Source: Tentatively identified as a metab. of *Acacia georginae*, prob. as an aberrant prod. of fatty acid biosynth. A metab. prod. of fluoroacetate in rat liver

Physical Description: Yellow or colourless liq.

Solubility: Mod. sol. H_2O , forming a const. boiling mixt.

Aldrich: 11546-0

Sigma: F4509

>>Derivative: 2,4-Dinitrophenylhydrazone

Physical Description: Orange cryst. (EtOH or isopropanol)

Melting Point: Mp 118-119°. Mp 134-135°

>>Derivative: Semicarbazone

Physical Description: Cryst.

Melting Point: Mp 142-143° (140°, 131-135°)

References:

- Aldrich Library of FT-IR Spectra*, 1st edn., 1985, **1**, 418B, (ir)
Aldrich Library of ^{13}C and ^1H FT NMR Spectra, 1992, **1**, 648B, (nmr)
Aldrich Library of FT-IR Spectra: Vapor Phase, 1989, **3**, 502D, (ir)
Cherbuliez, E. *et al.*, *Helv. Chim. Acta*, 1960, **43**, 1143, (synth)
Crowder, G.A. *et al.*, *J. Chem. Phys.*, 1967, **47**, 367, (ir)
Yates, K. *et al.*, *Spectrochim. Acta A*, 1969, **25**, 765, (uv)
Peters, R.A. *et al.*, *Nature (London)*, 1971, **231**, 123, (isol)
Shapiro, B.L. *et al.*, *J. Magn. Reson.*, 1973, **10**, 65, (pmr)
Hackett, P.A. *et al.*, *J. Phys. Chem.*, 1974, **78**, 665, (spectra)
IARC Monog., 1986, **39**, 147; Suppl. 7, 73, (tox, rev)
Welch, J.T. *et al.*, *J.O.C.*, 1988, **53**, 2991, (synth, pmr, cmr, F-19 nmr)
Meyer, M. *et al.*, *Chem. Br.*, 1992, **28**, 785, (rev, occur)
Abraham, R.J. *et al.*, *J.C.S. Perkin 2*, 1996, 533, (pmr, cmr)
Luxon, S.G., *Hazards in the Chemical Laboratory*, 5th edn., Royal Society of Chemistry, 1992, 1322