



>>Entry Name: 5-Hydroxy-2-pentanone, 9CI

Synonym(s): 3-Acetylpropanol. Levulinic alcohol

CAS Registry Number: 1071-73-4

$\text{H}_3\text{CCOCH}_2\text{CH}_2\text{CH}_2\text{OH}$

Molecular Formula: $\text{C}_5\text{H}_{10}\text{O}_2$

Molecular Weight: 102.133

Accurate Mass: 102.06808

Percentage Composition: C 58.80%; H 9.87%; O 31.33%

Physical Description: Liq.

Boiling Point: Bp_{730} 208° dec.. Bp_{100} 144-145°

Density: d_4^{20} 1.008

Refractive Index: n_D^{17} 1.4436

Other Data: Steam-volatile

Hazard & Toxicity: LD_{50} (mus, orl) 1960 mg/kg

Aldrich: A2080-4

>>Derivative: Ac

CAS Registry Number: 5185-97-7

Molecular Formula: $\text{C}_7\text{H}_{12}\text{O}_3$

Molecular Weight: 144.17

Accurate Mass: 144.078645

Percentage Composition: C 58.32%; H 8.39%; O 33.29%

Boiling Point: Bp 211-213°. Bp_{12} 91°

>>Derivative: Semicarbazone

Melting Point: Mp 155-157°

References:

Possanner, B., *Monatsh. Chem.*, 1903, **24**, 352

Paul, R., *Bull. Soc. Chim. Fr.*, 1933, **53**, 417-426, (synth)

Edward, J.T. *et al.*, *Can. J. Chem.*, 1971, **49**, 3799-3806, (uv, ir, nmr)

Wallace, P. *et al.*, *J.C.S. Perkin I*, 1988, 2971-2978, (synth)

Bovicelli, P. *et al.*, *Tet. Lett.*, 1994, **35**, 8477-8480, (synth)

Hawksley, D. *et al.*, *J.C.S. Perkin I*, 2001, 144-148, (Ac, ir, pmr)

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