



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

ENTRY UNDER REVIEW

Synonym(s): Hydroxyacetone. Acetol. Acetylcarbinol. Acetonyl alcohol. Pyruvic alcohol. Hydroxymethyl methyl ketone

CAS Registry Number: 116-09-6

Related CAS Registry Numbers(s): 134252-15-6 134252-16-7

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

Molecular Formula: $\text{C}_3\text{H}_6\text{O}_2$

Molecular Weight: 74.079

Accurate Mass: 74.03678

Percentage Composition: C 48.64%; H 8.16%; O 43.20%

Biological Source: Present in beer, tobacco and honey

Melting Point: Fp -17 approx. $^\circ$

Boiling Point: Bp $145-146^\circ$. Bp₁₅₀ $96-97^\circ$

Solubility: Sol. H_2O

Density: d_{20}^{20} 1.082

Refractive Index: n_D^{20} 1.4295

Other Data: Unstable. Stabilised by MeOH

Hazard & Toxicity: Exp. causes hypersensitivity reactions. Asthma, eye and nose irritation, and urticaria may result. LD₅₀ (rat, orl) 2200 mg/kg

Aldrich: 13818-5

Fluka: 54142

Rare Chemicals Library: S43998-3

Sigma: H0272

>>Derivative: Oxime

CAS Registry Number: 68113-52-0

Molecular Formula: $\text{C}_3\text{H}_7\text{NO}_2$

Molecular Weight: 89.094

Accurate Mass: 89.047679

Percentage Composition: C 40.44%; H 7.92%; N 15.72%; O 35.92%

Melting Point: Mp 78° (71°)

Boiling Point: Bp₃ 110°

>>Derivative: Dimethylhydrazone

CAS Registry Number: 80569-03-5

Molecular Formula: $\text{C}_5\text{H}_{12}\text{N}_2\text{O}$

Molecular Weight: 116.163

Accurate Mass: 116.094963

Percentage Composition: C 51.70%; H 10.41%; N 24.12%; O 13.77%

Physical Description: Oil

Boiling Point: Bp_{0.01} $100-105^\circ$

>>Derivative: Phenylhydrazone

CAS Registry Number: 69456-96-8

Melting Point: Mp 103°

>>Derivative: 2,4-Dinitrophenylhydrazone

CAS Registry Number: 96481-90-2

Physical Description: Orange cryst. (EtOH)

Melting Point: Mp 137 dec. $^\circ$ ($127.5-129.5^\circ$)

>>Derivative: Semicarbazone

CAS Registry Number: 21178-87-0

Melting Point: Mp 196°