



>>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  $145-146^\circ$ . Bp<sub>150</sub>  $96-97^\circ$

Solubility: Sol.  $\text{H}_2\text{O}$

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. LD<sub>50</sub> (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  $78^\circ$  ( $71^\circ$ )

Boiling Point: Bp<sub>3</sub>  $110^\circ$

>>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<sub>0.01</sub>  $100-105^\circ$

>>Derivative: Phenylhydrazone

CAS Registry Number: 69456-96-8

Melting Point: Mp  $103^\circ$

>>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  $196^\circ$