



>>Entry Name: Propanal, 9CI

ENTRY UNDER REVIEW

Synonym(s): Propionaldehyde. FEMA 2923

CAS Registry Number: 123-38-6

$\text{H}_3\text{CCH}_2\text{CHO}$

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

Molecular Weight: 58.08

Accurate Mass: 58.041865

Percentage Composition: C 62.04%; H 10.41%; O 27.55%

Biological Source: Isol. from various plant sources, e.g. hops, brown algae (*Laminaria* sp.), and strawberry aroma

Use/Importance: Flavouring agent

Physical Description: Liq. with suffocating odour

Melting Point: Fp -81° . Mp 131°

Boiling Point: Bp $47.5-49^\circ$

Solubility: Mod. sol. H_2O

Density: d_{25}^{25} 0.797

Refractive Index: n_D^{20} 1.3636

Other Data: Hydrolyzable on heating

Hazard & Toxicity: Eye, skin and respiratory tract irritant. LD₅₀ (rat, orl) 1410 mg/kg. Highly flammable, fl. p. $-30/-9^\circ$, autoignition temp. 207° . Peroxidizable

Aldrich: 44655-6

Fluka: 81870

Sigma: P6889

Supelco: S48-2923

>>Derivative: Trimer

>>Derivative: Polymer

Synonym(s): Metapropanal

CAS Registry Number: 25722-18-3

Physical Description: Cryst.

Melting Point: Mp 180°

Solubility: Insol. H_2O

Other Data: Subl.

>>Derivative: Oxime

CAS Registry Number: 627-39-4

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

Molecular Weight: 73.094

Accurate Mass: 73.052764

Percentage Composition: C 49.30%; H 9.65%; N 19.16%; O 21.89%

Use/Importance: Colorimetric reagent for Pd(II)

Physical Description: Cryst. (EtOH)

Melting Point: Mp 40°

Boiling Point: Bp $130-132^\circ$. Bp₁₀₀ 77°

Solubility: Sol. EtOH, H_2O

>>Derivative: Phenylhydrazone

CAS Registry Number: 5311-88-6

Molecular Formula: $\text{C}_9\text{H}_{10}\text{N}_2$

Molecular Weight: 146.191

Accurate Mass: 146.084398

Percentage Composition: C 73.94%; H 6.89%; N 19.16%

Physical Description: Yellow cryst.

Melting Point: Mp 149°