



>>Entry Name: 5-Hydroxynonanoic acid, 9CI

ENTRY UNDER REVIEW

$\text{H}_3\text{C}(\text{CH}_2)_3\text{CH}(\text{OH})\text{CH}_2\text{CH}_2\text{CH}_2\text{COOH}$

Molecular Formula: $\text{C}_9\text{H}_{18}\text{O}_3$

Molecular Weight: 174.239

Accurate Mass: 174.125595

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

>>Variant: (±)-form

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>>Derivative: Hydrazide

CAS Registry Number: 16425-12-0

Molecular Formula: $\text{C}_9\text{H}_{20}\text{N}_2\text{O}_2$

Molecular Weight: 188.269

Accurate Mass: 188.152478

Percentage Composition: C 57.42%; H 10.71%; N 14.88%; O 17.00%

Melting Point: Mp 84.6-85.4°

>>Derivative: Lactone

Synonym(s): 6-Butyltetrahydro-2*H*-pyron-2-one, 9CI. FEMA 3356

CAS Registry Number: 3301-94-8

Molecular Formula: $\text{C}_9\text{H}_{16}\text{O}_2$

Molecular Weight: 156.224

Accurate Mass: 156.11503

Percentage Composition: C 69.19%; H 10.32%; O 20.48%

Use/Importance: Flavouring ingredient

Physical Description: Oil with a mild nut-like odour and a fatty creamy taste

Boiling Point: Bp₁₁ 137-138°

Solubility: Prac. insol. H₂O sol. EtOH

Density: d²⁰ 0.99

Refractive Index: n_D²⁰ 1.4562

Aldrich: W33560-6

References:

Rosemund, K.W. *et al.*, *Chem. Ber.*, 1961, **94**, 2401; 2406, (*synth*)

Lardelli, G. *et al.*, *Rec. Trav. Chim. (J. R. Neth. Chem. Soc.)*, 1967, **86**, 481, (*synth*)

Fenaroli's Handbook of Flavor Ingredients, 3rd edn., (ed. Burdock, G.A.), CRC Press, 1995, **2**, 367, (*lactone*)

Encyclopedia of Food and Color Additives, (ed. Burdock, G.A.), CRC Press, 1997, 1379-1380, (*lactone*)