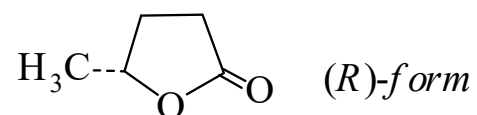




>>Entry Name: Dihydro-5-methyl-2(3*H*)-furanone, 9CI

ENTRY UNDER REVIEW

Synonym(s): Tetrahydro-5-methyl-2-furanone.  $\gamma$ -Valerolactone.  $\gamma$ -Methylbutyrolactone. 4-Hydroxypentanoic acid  $\gamma$ -lactone. FEMA 3103



CAS Registry Number: 108-29-2

Molecular Formula:  $\text{C}_5\text{H}_8\text{O}_2$

Molecular Weight: 100.117

Accurate Mass: 100.05243

Percentage Composition: C 59.98%; H 8.05%; O 31.96%

Biological Source: Present in peaches and other plant sources

Use/Importance: Flavouring agent. Present in peach, strawberry jam, tomato, wheat bread, Swiss cheese, Gruyere de Comte cheese, heated butter, cooked beef, white wine, red wine, coffee, black tea, roasted Ailbert, roasted peanut and Bourbon vanilla

Physical Description: Liq. with sweet herbaceous odour

Hazard & Toxicity: Skin irritant. LD<sub>50</sub> (rat, orl) 8800 mg/kg

Aldrich: V40-3

Fluka: 94580

Rare Chemicals Library: S44817-6

Sigma: V9628

>>Variant: (*R*)-form

CAS Registry Number: 58917-25-2

Molecular Formula:  $\text{C}_5\text{H}_8\text{O}_2$

Molecular Weight: 100.117

Accurate Mass: 100.05243

Percentage Composition: C 59.98%; H 8.05%; O 31.96%

Boiling Point: Bp<sub>35</sub> 105°

Optical Rotation:  $[\alpha]_{\text{D}}^{23} +30.1$

>>Variant: (*S*)-form

CAS Registry Number: 19041-15-7

Molecular Formula:  $\text{C}_5\text{H}_8\text{O}_2$

Molecular Weight: 100.117

Accurate Mass: 100.05243

Percentage Composition: C 59.98%; H 8.05%; O 31.96%

Boiling Point: Bp<sub>39</sub> 110°

Optical Rotation:  $[\alpha]_{\text{D}}^{23} -29.6$

>>Variant: ( $\pm$ )-form

CAS Registry Number: 57129-69-8

Molecular Formula:  $\text{C}_5\text{H}_8\text{O}_2$

Molecular Weight: 100.117

Accurate Mass: 100.05243

Percentage Composition: C 59.98%; H 8.05%; O 31.96%

Biological Source: Constit. of crude pyroligneous acid

Physical Description: Leaflets

Melting Point: Fp -31°

Boiling Point: Bp 205-207°. Bp<sub>13</sub> 83-84°

References: