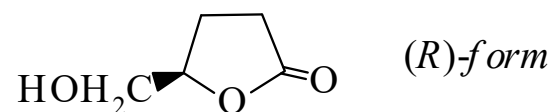




>>Entry Name: 4,5-Dihydro-5-(hydroxymethyl)-2(3*H*)-furanone, 9CI

Synonym(s): 4,5-Dihydroxypentanoic acid γ -lactone, 8CI. γ -Hydroxymethyl- γ -butyrolactone. 5-Hydroxy-4-pentanolide



CAS Registry Number: 10374-51-3

Molecular Formula: C₅H₈O₃

Molecular Weight: 116.116

Accurate Mass: 116.047345

Percentage Composition: C 51.72%; H 6.94%; O 41.34%

>>Variant: (*R*)-form

CAS Registry Number: 52813-63-5

Molecular Formula: C₅H₈O₃

Molecular Weight: 116.116

Accurate Mass: 116.047345

Percentage Composition: C 51.72%; H 6.94%; O 41.34%

Physical Description: Liq.

Boiling Point: Bp_{0.048} 101-102°

Optical Rotation: $[\alpha]_{\text{D}}^{30}$ -33.5 (c, 3.12 in EtOH). $[\alpha]_{\text{D}}^{20}$ -54.5 (c, 2.0 in CHCl₃) (>96% ee)

Aldrich: 34354-4

Fluka: 55621

>>Derivative: *O*-Triphenylmethyl

CAS Registry Number: 78158-90-4

Molecular Formula: C₂₄H₂₂O₃

Molecular Weight: 358.436

Accurate Mass: 358.156895

Percentage Composition: C 80.42%; H 6.19%; O 13.39%

Melting Point: Mp 152-154°

Optical Rotation: $[\alpha]_{\text{D}}^{20}$ -26.5 (c, 1 in CHCl₃)

Aldrich: 43897-9

Fluka: 93461

Other: Kiralchem

>>Variant: (*S*)-form

CAS Registry Number: 32780-06-6

Molecular Formula: C₅H₈O₃

Molecular Weight: 116.116

Accurate Mass: 116.047345

Percentage Composition: C 51.72%; H 6.94%; O 41.34%

Physical Description: Liq.

Boiling Point: Bp₇ 131-147°

Optical Rotation: $[\alpha]_{\text{D}}^{26}$ +31.3 (c, 2.92 in EtOH)

Aldrich: 34890-2

Fluka: 55620

>>Derivative: Benzoyl

CAS Registry Number: 32780-07-7

Molecular Formula: C₁₂H₁₂O₄

Molecular Weight: 220.224

Accurate Mass: 220.07356

Percentage Composition: C 65.45%; H 5.49%; O 29.06%

Physical Description: Needles (C₆H₆/hexane)

Melting Point: Mp 59-60.5°

Optical Rotation: $[\alpha]_{\text{D}}^{26}$ +48.2 (c, 1.03 in EtOH)

>>Derivative: 4-Methylbenzenesulfonyl

CAS Registry Number: 58879-34-8

Melting Point: Mp 86-88°