



>>Entry Name: Tetrahydro-5-oxo-2-furancarboxylic acid

Synonym(s):  $\gamma$ -Carboxy- $\gamma$ -butyrolactone. 2-Hydroxyglutaric acid  $\gamma$ -lactone



CAS Registry Number: 4344-84-7

Molecular Formula: C<sub>5</sub>H<sub>6</sub>O<sub>4</sub>

Molecular Weight: 130.1

Accurate Mass: 130.02661

Percentage Composition: C 46.16%; H 4.65%; O 49.19%

>>Variant: (*R*)-form

CAS Registry Number: 53558-93-3

Molecular Formula: C<sub>5</sub>H<sub>6</sub>O<sub>4</sub>

Molecular Weight: 130.1

Accurate Mass: 130.02661

Percentage Composition: C 46.16%; H 4.65%; O 49.19%

Optical Rotation:  $[\alpha]_{\text{D}}^{20} -16$  (c, 2 in EtOH)

Aldrich: 31047-6

Fluka: 75946

Sigma: O9129

>>Variant: (*S*)-form

CAS Registry Number: 21461-84-7

Molecular Formula: C<sub>5</sub>H<sub>6</sub>O<sub>4</sub>

Molecular Weight: 130.1

Accurate Mass: 130.02661

Percentage Composition: C 46.16%; H 4.65%; O 49.19%

Use/Importance: Chiral derivatising agent

Physical Description: Cryst. (CHCl<sub>3</sub>)

Melting Point: Mp 70-72°

Optical Rotation:  $[\alpha]_{\text{D}}^{25} +16.02$  (c, 4.6 in MeOH)

Aldrich: 30146-9

Fluka: 75947

Sigma: O5379

>>Derivative: Et ester

CAS Registry Number: 55094-96-7

Molecular Formula: C<sub>7</sub>H<sub>10</sub>O<sub>4</sub>

Molecular Weight: 158.154

Accurate Mass: 158.05791

Percentage Composition: C 53.16%; H 6.37%; O 40.47%

Physical Description: Liq.

Boiling Point: Bp<sub>10</sub> 135-140°

Optical Rotation:  $[\alpha]_{\text{D}}^{20} +15.1$  (c, 0.6 in EtOH)

>>Derivative: Chloride

Molecular Formula: C<sub>5</sub>H<sub>5</sub>ClO<sub>3</sub>

Molecular Weight: 148.545

Accurate Mass: 147.992722

Percentage Composition: C 40.43%; H 3.39%; Cl 23.87%; O 32.31%

Boiling Point: Bp<sub>0.4</sub> 82-84°

Optical Rotation:  $[\alpha]_{\text{D}}^{20} +49$  (c, 1.2 in C<sub>6</sub>H<sub>6</sub>)

Refractive Index: n<sub>D</sub><sup>29</sup> 1.4780