



Optical Rotation: $[\alpha]_{\text{D}}^{20} +120$ (*M* NaOH)

>>**Derivative:** *N*-(4-Methylbenzenesulfonyl)

CAS Registry Number: 110771-95-4

Molecular Formula: C₁₂H₁₅NO₄S

Molecular Weight: 269.321

Accurate Mass: 269.072179

Percentage Composition: C 53.52%; H 5.61%; N 5.20%; O 23.76%; S 11.91%

Melting Point: Mp 130-133°

>>**Variant:** (*S*)-form

Synonym(s): L-form. FEMA 3319

CAS Registry Number: 147-85-3

Molecular Formula: C₅H₉NO₂

Molecular Weight: 115.132

Accurate Mass: 115.063329

Percentage Composition: C 52.16%; H 7.88%; N 12.17%; O 27.79%

Biological Source: Found in hydrolysates of many proteins/peptides, widely distributed in free state

Use/Importance: Recoverable chiral reagent in asymmetric synth. of L-amino acids etc. Dietary supplement, nutrient. Used as a 0.1*M* aq. soln. for spectropolarimetric detn. of Cu

Physical Description: Cryst. (EtOH/Et₂O)

Melting Point: Mp 220-222 dec.°

Optical Rotation: $[\alpha]_{\text{D}}^{25} -86.2$ (c, 1 in H₂O). $[\alpha]_{\text{D}} -60.4$ (c, 1 in 5*M* HCl)

Solubility: V. sol. H₂O (162.3g/100g at 25°)

pKa Value: p*K*_{a2} 10.6 (NH₂)

Other Data: Isoelectric point pH 6.30. Sweet taste

Aldrich: 13154-7

Fluka: 81710

Sigma: P4655

>>**Derivative:** Hydrochloride

CAS Registry Number: 7776-34-3

Melting Point: Mp 115°

>>**Derivative:** Me ester

CAS Registry Number: 2577-48-2

Molecular Formula: C₆H₁₁NO₂

Molecular Weight: 129.158

Percentage Composition: C 55.80%; H 8.58%; N 10.84%; O 24.77%

Physical Description: Oil

Boiling Point: Bp₁₀ 70°

>>**Derivative:** Me ester; hydrochloride

CAS Registry Number: 2133-40-6

Physical Description: Hygroscopic cryst.

Melting Point: Mp 69-70°

Optical Rotation: $[\alpha]_{\text{D}}^{24} -40.1$ (c, 0.5 in H₂O)

Aldrich: 28706-7

Fluka: 81740

Sigma: P3135

>>**Derivative:** Et ester

CAS Registry Number: 5817-26-5

Molecular Formula: C₇H₁₃NO₂

Molecular Weight: 143.185

Accurate Mass: 143.094629

Percentage Composition: C 58.72%; H 9.15%; N 9.78%; O 22.35%

Physical Description: Oil

Optical Rotation: $[\alpha]_{\text{D}}^{20} -84.5$ (c, 6.01 in H₂O)