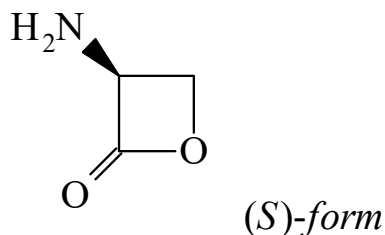




>>Entry Name: 3-Amino-2-oxetanone

Synonym(s): α -Amino- β -propiolactone. Serine β -lactone



CAS Registry Number: 102549-18-8

Related CAS Registry Numbers(s): 130854-30-7

Molecular Formula: $C_3H_5NO_2$

Molecular Weight: 87.078

Accurate Mass: 87.032029

Percentage Composition: C 41.38%; H 5.79%; N 16.09%; O 36.75%

>>Variant: (R)-form

Synonym(s): D-form

Molecular Formula: $C_3H_5NO_2$

Molecular Weight: 87.078

Accurate Mass: 87.032029

Percentage Composition: C 41.38%; H 5.79%; N 16.09%; O 36.75%

>>Derivative: 4-Methylbenzenesulfonate

Physical Description: Solid

>>Variant: (S)-form

Synonym(s): L-form

Molecular Formula: $C_3H_5NO_2$

Molecular Weight: 87.078

Accurate Mass: 87.032029

Percentage Composition: C 41.38%; H 5.79%; N 16.09%; O 36.75%

Use/Importance: Salts descr. react with nucleophiles to give optically pure amino acids

>>Derivative: Trifluoroacetate salt

CAS Registry Number: 112839-94-8

Other Data: Unstable, used immediately

>>Derivative: 4-Methylbenzenesulfonate

CAS Registry Number: 112839-95-9

Physical Description: Cryst. (DMF/Et₂O)

Optical Rotation: $[\alpha]_D^{25} -15.9$ (c, 2.2 in DMF)

Other Data: Darkens from 135°, dec. >173°

>>Derivative: *N*-tert-Butyloxycarbonyl

CAS Registry Number: 98541-64-1

Molecular Formula: $C_8H_{13}NO_4$

Molecular Weight: 187.195

Accurate Mass: 187.084459

Percentage Composition: C 51.33%; H 7.00%; N 7.48%; O 34.19%

Physical Description: Cryst.

Melting Point: Mp 119.5-120.5 dec.°

Optical Rotation: $[\alpha]_D^{22} -26.7$ (c, 1 in MeCN)