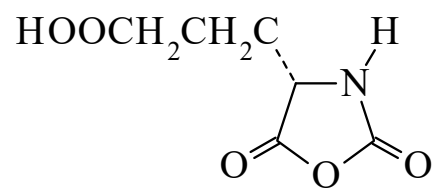




>>Entry Name: **2,5-Dioxo-4-oxazolidinepropanoic acid**, 9CI

Synonym(s): Glutamic acid *N*-carboxyanhydride. *N*-Carboxyglutamic acid anhydride



Molecular Formula: C₆H₇NO₅

Molecular Weight: 173.125

Accurate Mass: 173.032424

Percentage Composition: C 41.63%; H 4.08%; N 8.09%; O 46.21%

General Statement: The acid and its salts polymerise to polyglutamates

>>Variant: (S)-form

Synonym(s): L-form

CAS Registry Number: 33043-68-4

Type of Compound Code(s): PG5300

Molecular Formula: C₆H₇NO₅

Molecular Weight: 173.125

Accurate Mass: 173.032424

Percentage Composition: C 41.63%; H 4.08%; N 8.09%; O 46.21%

Use/Importance: Used in peptide synthesis, and in the detn. of the optical purity of amino acids by hplc

Physical Description: Cryst. (EtOH/hexane)

Melting Point: Mp 83 dec.°

Optical Rotation: [α]_D²⁶ -29.52 (c, 1.05 in dioxan)

>>Derivative: Me ester

CAS Registry Number: 1663-47-4

Molecular Formula: C₇H₉NO₅

Molecular Weight: 187.152

Accurate Mass: 187.048074

Percentage Composition: C 44.92%; H 4.85%; N 7.48%; O 42.74%

Physical Description: Cryst. (CHCl₃/petrol)

Melting Point: Mp 99°

>>Derivative: Et ester

CAS Registry Number: 19363-27-0

Molecular Formula: C₈H₁₁NO₅

Molecular Weight: 201.179

Accurate Mass: 201.063724

Percentage Composition: C 47.76%; H 5.51%; N 6.96%; O 39.76%

Physical Description: Cryst. (CHCl₃/petrol)

Melting Point: Mp 66°

>>Derivative: Benzyl ester

CAS Registry Number: 3190-71-4

Molecular Formula: C₁₃H₁₃NO₅

Molecular Weight: 263.249

Accurate Mass: 263.079374

Percentage Composition: C 59.31%; H 4.98%; N 5.32%; O 30.39%

Physical Description: Cryst.

Melting Point: Mp 93-94°

Optical Rotation: [α]_D²⁵ -17.6 (c, 3.78 in EtOAc)

References:

- Coleman, D., *J.C.S.*, 1950, 3222; 1951, 2294, (*synth, esters*)
Blout, E.R. *et al.*, *J.A.C.S.*, 1956, **78**, 941, (*synth, benzyl ester*)
Manning, J.M. *et al.*, *J. Biol. Chem.*, 1968, **243**, 5591, (*use*)
Hirschmann, R. *et al.*, *J.A.C.S.*, 1971, **93**, 2746, (*synth, use*)
Fuller, W.D. *et al.*, *Biopolymers*, 1976, **15**, 1869, (*synth, esters*)
Kricheldorf, H.R. *et al.*, *Org. Magn. Reson.*, 1980, **14**, 198, (*nmr, esters*)
Daly, W.H. *et al.*, *Tet. Lett.*, 1988, **29**, 5859, (*synth*)