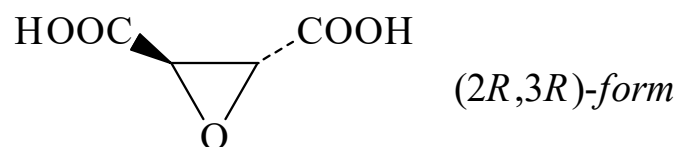




>>Entry Name: **2,3-Oxiranedicarboxylic acid**, 9CI

Synonym(s): Epoxysuccinic acid, 8CI. Ethylene oxide 1,2-dicarboxylic acid



CAS Registry Number: 3272-11-5

Related CAS Registry Numbers(s): 73889-79-9

Molecular Formula: C₄H₄O₅

Molecular Weight: 132.073

Accurate Mass: 132.005875

Percentage Composition: C 36.38%; H 3.05%; O 60.57%

Rare Chemicals Library: S1710-9

>>Variant: (2*R*,3*R*)-form

Synonym(s): (–)-*trans*-form

CAS Registry Number: 17015-08-6

Molecular Formula: C₄H₄O₅

Molecular Weight: 132.073

Accurate Mass: 132.005875

Percentage Composition: C 36.38%; H 3.05%; O 60.57%

Biological Source: Metab. of *Aspergillus fumigatus*, *Paecilomyces varioti*, *Monilia formosa* and *Penicillium vineferum*

Use/Importance: Plant growth regulator. Inhibits papain

Physical Description: Cryst. (dry dioxan)

Melting Point: Mp 182-184°

Optical Rotation: $[\alpha]_{\text{D}}^{25} -118$ (c, 1 in EtOH)

>>Derivative: Di-Me ester

CAS Registry Number: 85798-25-0

Molecular Formula: C₆H₈O₅

Molecular Weight: 160.126

Accurate Mass: 160.037175

Percentage Composition: C 45.01%; H 5.04%; O 49.96%

Melting Point: Mp 74.5°

Optical Rotation: $[\alpha]_{\text{D}}^{25} -125$ (c, 1 in EtOH)

>>Derivative: Di-Et ester

CAS Registry Number: 74243-85-9

Molecular Formula: C₈H₁₂O₅

Molecular Weight: 188.18

Accurate Mass: 188.068475

Percentage Composition: C 51.06%; H 6.43%; O 42.51%

Physical Description: Liq.

Boiling Point: Bp_{2.7} 123-125°

Optical Rotation: $[\alpha]_{\text{D}} -111.5$ (c, 1.44 in Et₂O)

>>Derivative: Amide

Molecular Formula: C₄H₅NO₄

Molecular Weight: 131.088

Accurate Mass: 131.021859

Percentage Composition: C 36.65%; H 3.84%; N 10.68%; O 48.82%

Physical Description: Cryst. (H₂O)

Melting Point: Mp 205-208°

Optical Rotation: $[\alpha]_{\text{D}}^{25} -68$ (c, 1 in EtOH)