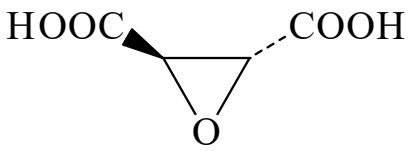
>>**Entry Name: 2,3-Oxiranedicarboxylic acid,** 9CI
Synonym(s): Epoxysuccinic acid, 8CI. Ethylene oxide 1,2-dicarboxylic acid



(2*R*,3*R*)-*form*

CAS Registry Number: 3272-11-5
Related CAS Registry Numbers(s): 73889-79-9

Molecular Formula: $C_4H_4O_5$
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: $C_4H_4O_5$
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, Paeciliomyces 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: $[\alpha]_D^{25}$ –118 (c, 1 in EtOH)

>>**Derivative:** Di-Me ester

CAS Registry Number: 85798-25-0
Molecular Formula: $C_6H_8O_5$
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: $[\alpha]_D^{25}$ –125 (c, 1 in EtOH)

>>**Derivative:** Di-Et ester

CAS Registry Number: 74243-85-9
Molecular Formula: $C_8H_{12}O_5$
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: $[\alpha]_D$ –111.5 (c, 1.44 in Et_2O)

>>**Derivative:** Amide

Molecular Formula: $C_4H_5NO_4$
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. (H_2O)
Melting Point: Mp 205-208°
Optical Rotation: $[\alpha]_D^{25}$ –68 (c, 1 in EtOH)