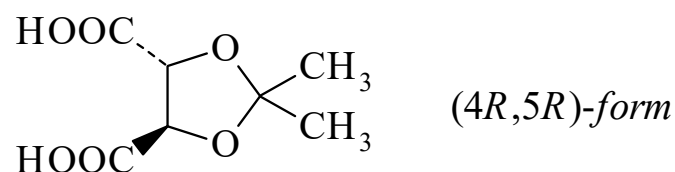




>>>Entry Name: 2,2-Dimethyl-1,3-dioxolane-4,5-dicarboxylic acid, 9CI

Synonym(s): 2,3-*O*-Isopropylidenetartaric acid



Related CAS Registry Numbers(s): 116499-08-2

Molecular Formula: C₇H₁₀O₆

Molecular Weight: 190.152

Accurate Mass: 190.04774

Percentage Composition: C 44.22%; H 5.30%; O 50.48%

Use/Importance: The (4*R-trans*) and (4*S-trans*) forms of the di-Me ester are valuable chiral intermeds.

>>>Variant: (4*R*,5*R*)-form

Synonym(s): (–)-*trans*-form

CAS Registry Number: 83529-40-2

Molecular Formula: C₇H₁₀O₆

Molecular Weight: 190.152

Accurate Mass: 190.04774

Percentage Composition: C 44.22%; H 5.30%; O 50.48%

>>>Derivative: Di-Me ester

CAS Registry Number: 37031-29-1

Molecular Formula: C₉H₁₄O₆

Molecular Weight: 218.206

Accurate Mass: 218.07904

Percentage Composition: C 49.54%; H 6.47%; O 43.99%

Physical Description: Light green liq.

Boiling Point: Bp₁₉ 150°

Optical Rotation: [α]_D²⁵ –62 (neat). [α]_D²⁵ –44 (c, 1 in CHCl₃)

Density: d₄²⁵ 1.19

Refractive Index: n_D²⁰ 1.4390

Aldrich: 35906-8

Fluka: 59542

>>>Variant: (4*S*,5*S*)-form

Synonym(s): (+)-*trans*-form

CAS Registry Number: 126581-14-4

Molecular Formula: C₇H₁₀O₆

Molecular Weight: 190.152

Accurate Mass: 190.04774

Percentage Composition: C 44.22%; H 5.30%; O 50.48%

>>>Derivative: Di-Me ester

CAS Registry Number: 37031-30-4

Boiling Point: Bp_{0.1} 80-82°

Optical Rotation: [α]_D²⁰ +54 (neat)

Refractive Index: n_D²⁰ 1.4390

Aldrich: 38431-3

Fluka: 59543

>>>Derivative: Diisopropyl ester

Molecular Formula: C₁₃H₂₂O₆

Molecular Weight: 274.313

Accurate Mass: 274.14164

Percentage Composition: C 56.92%; H 8.08%; O 35.00%

Physical Description: Solid (diisopropyl ether)

Melting Point: Mp 41.5-42.5°

Optical Rotation: [α]_D²² +43.8 (c, 3.8 in CHCl₃)