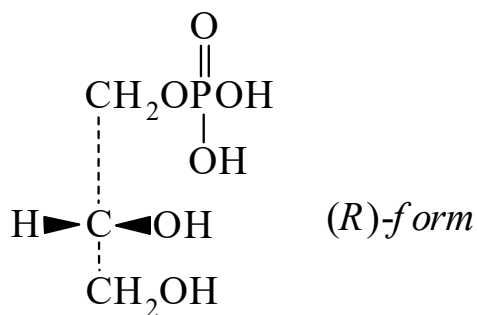




>>Entry Name: Glycerol 1-monophosphate

Synonym(s): α -Glycerophosphoric acid. Glycerol 1-phosphate



CAS Registry Number: 57-03-4

Related CAS Registry Numbers(s): 1319-69-3 1334-74-3 17603-42-8 27214-00-2

Extra CAS Registry Numbers(s): 27082-31-1

Molecular Formula: $\text{C}_3\text{H}_9\text{O}_6\text{P}$

Molecular Weight: 172.074

Accurate Mass: 172.013677

Percentage Composition: C 20.94%; H 5.27%; O 55.79%; P 18.00%

DHQ69-E, $[\alpha]_{\text{D}}$ ca. -0.5° . Synthetic glycerophosphoric acid prepd. by phosphorylation of glycerol has varying isomeric composition

>>Variant: (R)-form

Synonym(s): L-form

CAS Registry Number: 5746-57-6

Molecular Formula: $\text{C}_3\text{H}_9\text{O}_6\text{P}$

Molecular Weight: 172.074

Accurate Mass: 172.013677

Percentage Composition: C 20.94%; H 5.27%; O 55.79%; P 18.00%

Physical Description: Syrup

Other Data: Dec. on dist. Slowly hydrol. by H_2O

>>Derivative: Ba salt (2:1)

Optical Rotation: $[\alpha]_{\text{D}} -1.45$ (c, 10.3 in 2N HCl)

>>Derivative: Di-Me ether, Na salt

Molecular Formula: $\text{C}_5\text{H}_{13}\text{NaO}_6\text{P}$

Molecular Weight: 223.117

Percentage Composition: C 26.92%; H 5.87%; Na 10.30%; O 43.03%; P 13.88%

Optical Rotation: $[\alpha]_{\text{D}} -7.2$

>>Derivative: Di-Me ether, di-Me ester

Molecular Formula: $\text{C}_7\text{H}_{17}\text{O}_6\text{P}$

Molecular Weight: 228.181

Accurate Mass: 228.076277

Percentage Composition: C 36.85%; H 7.51%; O 42.07%; P 13.57%

Optical Rotation: $[\alpha]_{\text{D}} -4.78$ (EtOH)

>>Variant: (S)-form

Synonym(s): D-form

CAS Registry Number: 17989-41-2

Molecular Formula: $\text{C}_3\text{H}_9\text{O}_6\text{P}$

Molecular Weight: 172.074

Accurate Mass: 172.013677

Percentage Composition: C 20.94%; H 5.27%; O 55.79%; P 18.00%

Physical Description: Syrup

Other Data: Dec. on dist. Slowly hydrol. by H_2O

>>Derivative: Li salt

Optical Rotation: $[\alpha]_{\text{D}}^{28} +3.51$ (H_2O)