



Optical Rotation: $[\alpha]_{\text{D}} +22.3$ (c, 1.0 in CHCl_3)

>>**Derivative:** 5,6-Isopropylidene

Synonym(s): 5,6-*O*-Isopropylidene-D-galactono-1,4-lactone

CAS Registry Number: 56710-46-4

Molecular Formula: $\text{C}_9\text{H}_{14}\text{O}_6$

Molecular Weight: 218.206

Accurate Mass: 218.07904

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

Physical Description: Syrup

Optical Rotation: $[\alpha]_{\text{D}}^{22} -42$ (c, 2.0 in Me_2CO)

>>**Derivative:** 5-Me, 2,3,6-tri-Ac

Synonym(s): 2,3,6-Tri-*O*-acetyl-5-*O*-methyl-D-galactono-1,4-lactone

Molecular Formula: $\text{C}_{13}\text{H}_{18}\text{O}_9$

Molecular Weight: 318.28

Accurate Mass: 318.095085

Percentage Composition: C 49.06%; H 5.70%; O 45.24%

Optical Rotation: $[\alpha]_{\text{D}}^{20} -38$ (c, 1.0 in CHCl_3)

>>**Derivative:** Tetra-Me

Synonym(s): 2,3,5,6-Tetra-*O*-methyl-D-galactono-1,4-lactone

Molecular Formula: $\text{C}_{10}\text{H}_{18}\text{O}_6$

Molecular Weight: 234.249

Accurate Mass: 234.11034

Percentage Composition: C 51.27%; H 7.74%; O 40.98%

Boiling Point: $\text{Bp}_{0.02}$ 127-128°

Optical Rotation: $[\alpha]_{\text{D}} -28.5$ (2 m) $\rightarrow -25.9$ (H_2O)

>>**Derivative:** 6-Trityl, 2,3,5-tri-Ac

Synonym(s): 2,3,5-Tri-*O*-acetyl-6-*O*-trityl-D-galactono-1,4-lactone

Molecular Formula: $\text{C}_{31}\text{H}_{30}\text{O}_9$

Molecular Weight: 546.573

Accurate Mass: 546.188985

Percentage Composition: C 68.12%; H 5.53%; O 26.35%

Optical Rotation: $[\alpha]_{\text{D}}^{20} -38.7$ (c, 1.0 in CHCl_3)

>>**Derivative:** 6-Trityl, 2,3,5-tribenzoyl

Synonym(s): 2,3,5-Tri-*O*-benzoyl-6-*O*-trityl-D-galactono-1,4-lactone

Molecular Formula: $\text{C}_{46}\text{H}_{36}\text{O}_9$

Molecular Weight: 732.785

Accurate Mass: 732.235935

Percentage Composition: C 75.40%; H 4.95%; O 19.65%

Physical Description: Cryst. (EtOH)

Melting Point: Mp 145-146°

Optical Rotation: $[\alpha]_{\text{D}}^{20} +8$ (c, 1 in CHCl_3)

>>**Variant:** L-form

CAS Registry Number: 1668-08-2

Molecular Formula: $\text{C}_6\text{H}_{10}\text{O}_6$

Molecular Weight: 178.141

Accurate Mass: 178.04774

Percentage Composition: C 40.45%; H 5.66%; O 53.89%

Melting Point: Mp 134-135°

Optical Rotation: $[\alpha]_{\text{D}}^{26} +77$ (c, 4 in H_2O , initial)

Sigma: G0879