



>>Variant: D-Furanose-form

Molecular Formula: C₆H₁₂O₅

Molecular Weight: 164.158

Accurate Mass: 164.068475

Percentage Composition: C 43.90%; H 7.37%; O 48.73%

>>Derivative: Me glycoside

>>Variant: L-form

Synonym(s): Isodulcitol. Lokaose

CAS Registry Number: 3615-41-6

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Biological Source: Constit. of many glycosides in plants. Present in leaves of poison ivy *Rhus toxicodendron*, in polysaccharides of gums, mucilages, numerous immunological polysaccharides of bacterial origin and in cardiac glycosides. Quercetin (main constit. of lemon flavin) and Naringin (from grapefruit-canning wastes) have been used as sources

Physical Description: Crystallises as α- and β-forms which equilibrate in soln.

Melting Point: Mp 93-95° (hydrate)

Optical Rotation: [α]_D +8.9 (H₂O, at equilibrium)

>>Derivative: Phenylhydrazone

Melting Point: Mp 159°

Optical Rotation: [α]_D +54.2 → +27 (H₂O)

>>Derivative: 2,4-Dinitrophenylhydrazone

Melting Point: Mp 164-165°

>>Derivative: Phenyllosazone

Melting Point: Mp 190°

>>Derivative: Tetranitrate

Molecular Formula: C₆H₈N₄O₁₃

Molecular Weight: 344.148

Accurate Mass: 344.008791

Percentage Composition: C 20.94%; H 2.34%; N 16.28%; O 60.44%

Melting Point: Mp 135°

Optical Rotation: [α]_D -68.4 (MeOH)

>>Derivative: Di-Me acetal

Molecular Formula: C₈H₁₈O₆

Molecular Weight: 210.227

Accurate Mass: 210.11034

Percentage Composition: C 45.71%; H 8.63%; O 45.66%

Melting Point: Mp 123-124°

Optical Rotation: [α]_D²⁰ +10 (c, 0.4 in H₂O)

>>Derivative: Di-Et dithioacetal

Molecular Formula: C₁₀H₂₂O₄S₂

Molecular Weight: 270.413

Accurate Mass: 270.09595

Percentage Composition: C 44.42%; H 8.20%; O 23.67%; S 23.72%

Melting Point: Mp 135-137°