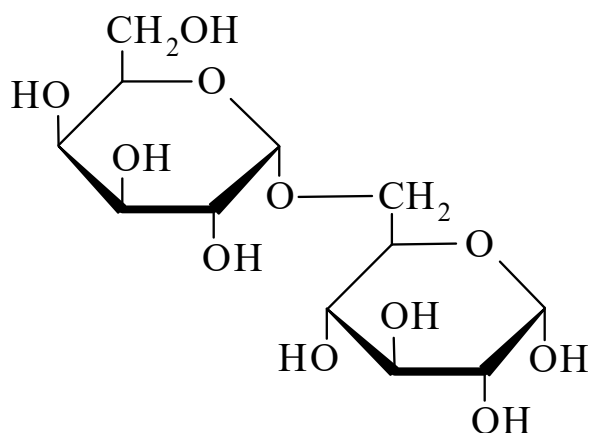




>>Entry Name: 6-*O*- α -D-Galactopyranosyl-D-glucose, 9CI

ENTRY UNDER REVIEW

Synonym(s): Melibiose, 8CI



α -Pyranose-form

CAS Registry Number: 585-99-9

Related CAS Registry Numbers(s): 66009-10-7

Molecular Formula: C₁₂H₂₂O₁₁

Molecular Weight: 342.299

Accurate Mass: 342.116215

Percentage Composition: C 42.11%; H 6.48%; O 51.42%

Biological Source: Occurs free in wild mallow and combined with fructose as the trisaccharide raffinose. Also isol. from coffee beans, *Corylus* spp., *Aconitum napellus*, apple (*Pyrus malus*) and other plants

Melting Point: Mp 85 dec.^o (dihydrate). Mp 179-181^o (monohydrate)

Solubility: BERDY SOL: Sol. H₂O

UV: [neutral] $\lambda_{\max}$ (H₂O) (Berdy)

Other Data: Approx. one-third as sweet as sucrose. Dihydrate reported to be β -anomer; monohydrate the α -anomer

Hazard & Toxicity: BERDY HAZD : LD₅₀ (mus, ivn) 1000 - 3000 mg/kg

Aldrich: M269-1

Sigma: M5500

>>Derivative: Phenyllosazone

Melting Point: Mp 176-178^o

Optical Rotation: $[\alpha]_{\text{D}}^{21} +43.2$ (Py)

>>Variant: α -Pyranose-form

Molecular Formula: C₁₂H₂₂O₁₁

Molecular Weight: 342.299

Accurate Mass: 342.116215

Percentage Composition: C 42.11%; H 6.48%; O 51.42%

Optical Rotation: $[\alpha]_{\text{D}}^{20} +134$ (c, 4 in H₂O)

>>Derivative: Me glycoside, hepta-Me

Synonym(s): Methyl hepta-*O*-methyl- α -D-galactopyranosyl- α -D-glucopyranoside

Molecular Formula: C₂₀H₃₈O₁₁

Molecular Weight: 454.514

Accurate Mass: 454.241415

Percentage Composition: C 52.85%; H 8.43%; O 38.72%

Melting Point: Mp 122-123^o

>>Derivative: 1-Chloro-1-deoxy, hepta-Ac

Synonym(s): Acetochloromelibiose

Molecular Formula: C₂₆H₃₅ClO₁₇

Molecular Weight: 655.005

Accurate Mass: 654.156282

Percentage Composition: C 47.68%; H 5.39%; Cl 5.41%; O 41.52%

Melting Point: Mp 127^o

Optical Rotation: $[\alpha]_{\text{D}}^{20} +192.5$ (CHCl₃)