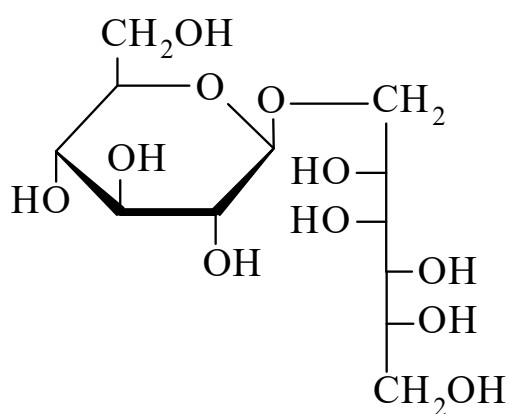




>>Entry Name: 1-*O*-D-Glucopyranosyl-D-mannitol, 8CI
ENTRY UNDER REVIEW



CAS Registry Number: 28971-30-4

Related CAS Registry Numbers(s): 64519-82-0

Molecular Formula: C₁₂H₂₄O₁₁

Molecular Weight: 344.315

Accurate Mass: 344.131865

Percentage Composition: C 41.86%; H 7.03%; O 51.11%

>>Variant: α -form

CAS Registry Number: 20942-99-8

Molecular Formula: C₁₂H₂₄O₁₁

Molecular Weight: 344.315

Accurate Mass: 344.131865

Percentage Composition: C 41.86%; H 7.03%; O 51.11%

Source/Synthesis: Prepd. on large scale from sucrose

Use/Importance: Low nutritive sweetener with half sweetness of sucrose

Melting Point: Mp 122-125°

Optical Rotation: $[\alpha]_D^{20} +87.3$ (c, 0.2 in H₂O)

>>Variant: β -form

Molecular Formula: C₁₂H₂₄O₁₁

Molecular Weight: 344.315

Accurate Mass: 344.131865

Percentage Composition: C 41.86%; H 7.03%; O 51.11%

Biological Source: Constit. of *Fucus vesiculosus* and other brown algae

Melting Point: Mp 140-141°

Optical Rotation: $[\alpha]_D^{20} -18$ (c, 2.0 in H₂O)

References:

- Lindberg, B. *et al.*, *Acta Chem. Scand.*, 1953, **7**, 1119; 1218; 1954, **8**, 817; 1547; 1955, **9**, 168, (*isol, synth, β -form*)
Manners, D.J. *et al.*, *Carbohydr. Res.*, 1968, **7**, 291-298, (*α -form, synth*)
Helferich, B. *et al.*, *Chem. Ber.*, 1973, **106**, 2508-2512, (*α -form, synth*)
Lindner, H.J. *et al.*, *Carbohydr. Res.*, 1981, **93**, 1315, (*cryst struct*)