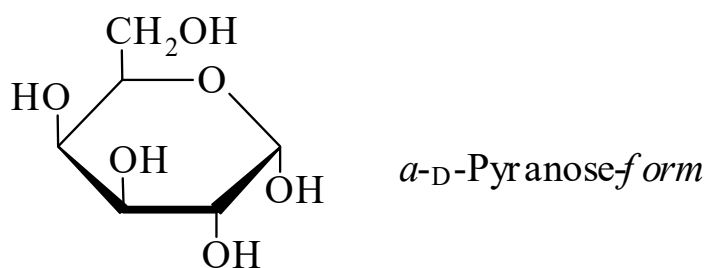




>>Entry Name: Galactose, 9CI, 8CI, USAN

Synonym(s): Cerebrose



CAS Registry Number: 26566-61-0

Related CAS Registry Numbers(s): 4198-47-4 41846-88-2 41846-89-3 42789-83-3

Molecular Formula: C₆H₁₂O₆

Molecular Weight: 180.157

Accurate Mass: 180.06339

Percentage Composition: C 40.00%; H 6.71%; O 53.28%

General Statement: An aq. soln. at 31° contains 30% α -pyr, 64% β -pyr, 2.5% α -fur, 3.5% β -fur and 0.02% aldehyde

Biological Use/Importance: Active ingredient of Levovist™, used in echo-enhancement in sonographic Doppler-B-mode imaging. Ultrasound contrast medium

>>Variant: D-form

CAS Registry Number: 59-23-4

Molecular Formula: C₆H₁₂O₆

Molecular Weight: 180.157

Accurate Mass: 180.06339

Percentage Composition: C 40.00%; H 6.71%; O 53.28%

Biological Source: The free sugar has been detected in ivy berries, some fruits and heartwood of *Chamaecyparis lawsonia*. It is a constit. of the oligosaccharides Lactose [BTV09-V](#), 6-*O*- α -D-Galactopyranosyl-D-glucose [BWC12-V](#) and Raffinose [BFL28-I](#), the glycosides Idaein and Myritillin and the cerebroside and gangliosides of brain and nerve tissue. It is one of the few sugars, other than D-Glucose and 2-Deoxy-D-ribose, found to any great extent in the animal kingdom, a common constit. of glycoproteins and the galactans of beef lung, frog spawn and snail (*Helix pomatia*) albumin gland. Polysaccharides agar, gum arabic, mesquite gum, western larch gum and many plant mucilages and gums contain galactose. Can be prepd. by acid hydrol. of lactose, being isol. after the glucose has been removed by yeast fermentation

Use/Importance: Inexpensive starting material for synthesis

Biological Use/Importance: Used as a measure of hepatic function

Melting Point: Mp 118-120° (monohydrate)

pKa Value: pK_{a1} 12.35 (25°)

Other Data: Sweet taste, sweetness = 0.33 x sucrose

Hazard & Toxicity: Exp. reprod. and teratogenic effects (large doses)

Aldrich: 11259-3

Fluka: 48263

Sigma: G6404

Supelco: 4-7248

>>Derivative: Phenylhydrazone

CAS Registry Number: 18841-76-4

Melting Point: Mp 159-160°

Optical Rotation: [α]_D -21.6 (H₂O)

>>Derivative: Di-Et dithioacetal

see Galactose diethyl dithioacetal, [BXF19-Y](#)

>>Derivative: 1,2,4,6-Tetra-Ac

Synonym(s): 1,2,4,6-Tetra-*O*-acetyl-D-galactose

CAS Registry Number: 13996-89-9

Molecular Formula: C₁₄H₂₀O₁₀

Molecular Weight: 348.306

Accurate Mass: 348.10565

Percentage Composition: C 48.28%; H 5.79%; O 45.93%

Optical Rotation: [α]_D²⁰ +63.9 (c, 1 in CHCl₃)