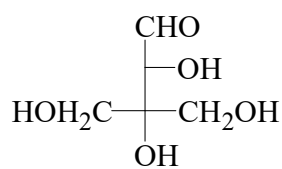


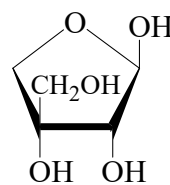


>>Entry Name: Apiose, 9CI, 8CI

Synonym(s): 2,3,4-Trihydroxy-3-(hydroxymethyl)butanal. 3-C-(Hydroxymethyl)-glycero-tetrose. Tetrahydroxyisovaleraldehyde



D-form



β -D-erythro-Tetrofuranose-form

Related CAS Registry Numbers(s): 6477-44-7 30912-14-2 41546-43-4 41546-44-5 41546-46-7 41546-47-8 41546-49-0 94943-41-6

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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

General Statement: Care needed with naming and numbering of derivs. C-3 is not a chiral centre in the acyclic sugar. In L-Apio- α -D-furanose for example, L- defines the config. at C-2 (L-apiose), while D-defines the config. at C-3 (D-furanosyl stereoisomeric form of L-apiose)

>>Variant: D-form

Synonym(s): (R)-form

CAS Registry Number: 639-97-4

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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

Biological Source: First found in parsley as the glycoside Apiin [CNR75-N](#), also present in celery, *Dalbergia lanceolaria*, *Posidonia australis*, *Hevea brasiliensis*, *Taraxacum kok-saghyz*, *Zostera marina*, *Lemna* spp., and *Platycodon grandiflorum*

Physical Description: Syrup

Optical Rotation: $[\alpha]_D +7.6$ (c, 0.7 in H₂O)

>>Derivative: Benzylphenylhydrazone

Physical Description: Cryst. (CHCl₃)

Melting Point: Mp 138-139°

Optical Rotation: $[\alpha]_D^{20} -94$ (c, 4.6 in Py). $[\alpha]_D -29$ (c, 1.1 in MeOH)

>>Derivative: 2,3-O-Isopropylidene

Synonym(s): 2,3-O-Isopropylidene-D-apiose

Molecular Formula: C₈H₁₄O₅

Molecular Weight: 190.196

Accurate Mass: 190.084125

Percentage Composition: C 50.52%; H 7.42%; O 42.06%

Physical Description: Syrup

Optical Rotation: $[\alpha]_D -35$ (c, 0.87 in MeOH)

>>Variant: α -D-erythro-Tetrofuranose-form

Synonym(s): D-Apio- α -D-furanose, 9CI. 3-C-Hydroxymethyl- α -D-erythro-tetrofuranose

CAS Registry Number: 30738-01-3

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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