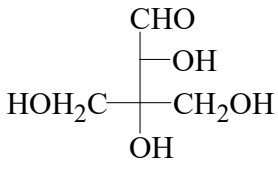
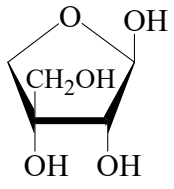
>>**Entry Name: Apiose,** 9Cl, 8Cl
Synonym(s): 2,3,4-Trihydroxy-3-(hydroxymethyl)butanal. 3-*C*-(Hydroxymethyl)-*glycero*-tetrose. Tetrahydroxyisovaleraldehyde



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: $C_5H_{10}O_5$
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: $C_5H_{10}O_5$
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 H_2O)

>>**Derivative:** Benzylphenylhydrazone

Physical Description: Cryst. ($CHCl_3$)
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: $C_8H_{14}O_5$
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, 9Cl. 3-*C*-Hydroxymethyl-α-D-*erythro*-tetrofuranose

CAS Registry Number: 30738-01-3
Molecular Formula: $C_5H_{10}O_5$
Molecular Weight: 150.131
Accurate Mass: 150.052825
Percentage Composition: C 40.00%; H 6.71%; O 53.28%