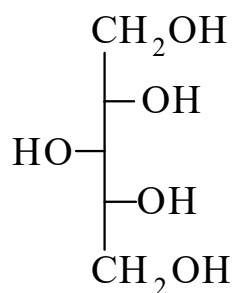




>>Entry Name: Xylitol, 9CI

ENTRY UNDER REVIEW

Synonym(s): Xylite. Xyliton. E967. Klinit. Kylit



CAS Registry Number: 87-99-0

Extra CAS Registry Numbers(s): 16277-71-7

Molecular Formula: C₅H₁₂O₅

Molecular Weight: 152.147

Accurate Mass: 152.068475

Percentage Composition: C 39.47%; H 7.95%; O 52.58%

Biological Source: Occurs in mushroom *Psalliota campestris* and roots of *Primula officinalis*. Prod. industrially by redn. of Xylose [BTQ50-C](#) obt. from wood cellulose

Use/Importance: Nutritive sweetener. Sweetening agent used in sugar free sweets and chewing gums and pharmaceuticals

Physical Description: Two forms: metastable, rhombic cryst. and stable, monoclinic cryst.

Melting Point: Mp 61-61.5° (metastable). Mp 93-94.5° (stable)

Solubility: BERDY SOL: Poorly sol. hexane

Other Data: Opt. inactive (*meso*-)

Hazard & Toxicity: LD₅₀ (mus, orl) 22000 mg/kg; adverse gastrointestinal effects (large dose) ; BERDY HAZD : LD₅₀ (mus, orl) 22000 mg/kg

Aldrich: 85158-2

Fluka: 95649

Supelco: 4-6927

>>Derivative: Penta-Ac

CAS Registry Number: 13437-68-8

Molecular Formula: C₁₅H₂₂O₁₀

Molecular Weight: 362.333

Accurate Mass: 362.1213

Percentage Composition: C 49.72%; H 6.12%; O 44.16%

Melting Point: Mp 62.5-63°

>>Derivative: Pentabenzoyl

CAS Registry Number: 36030-82-7

Molecular Formula: C₄₀H₃₂O₁₀

Molecular Weight: 672.687

Accurate Mass: 672.19955

Percentage Composition: C 71.42%; H 4.79%; O 23.78%

Melting Point: Mp 106-107°

>>Derivative: 1,2:3,4-Di-*O*-isopropylidene

Molecular Formula: C₁₁H₂₀O₅

Molecular Weight: 232.276

Accurate Mass: 232.131075

Percentage Composition: C 56.88%; H 8.68%; O 34.44%

Melting Point: Mp 36°