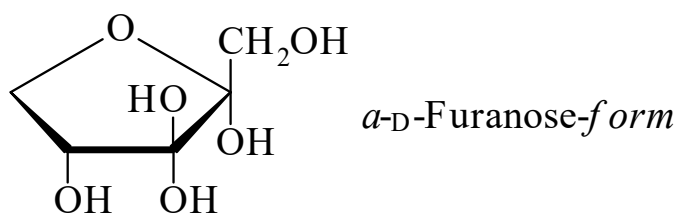




>>Entry Name: *threo*-2-Pentulose, 9CI, 8CI

Synonym(s): Xylulose. Xyloketose. Threopentulose. Ketoxylulose. Lyxulose



CAS Registry Number: 5962-29-8

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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

>>Variant: D-form

CAS Registry Number: 551-84-8

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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

Biological Source: Prod. by microbacteria from xylose. Intermed. in carbohydrate metab. of plants. Component of the lipopolysaccharides of the pseudomonad *Pseudomonas vesicularis*

Physical Description: Syrup

Optical Rotation: $[\alpha]_D^{18} -33.2$ (H₂O)

Fluka: 95744

>>Derivative: *p*-Bromophenylhydrazone

Melting Point: Mp 128-129°

Optical Rotation: $[\alpha]_D^{20} +23.7 \rightarrow -31.2$ (Py)

>>Derivative: 2,4-Dinitrophenylhydrazone

CAS Registry Number: 23176-93-4

Melting Point: Mp 175-176°

>>Derivative: 5-Phosphate

CAS Registry Number: 4212-65-1

Molecular Formula: C₅H₁₁O₈P

Molecular Weight: 230.111

Accurate Mass: 230.019157

Percentage Composition: C 26.10%; H 4.82%; O 55.62%; P 13.46%

Source/Synthesis: Metabolic intermed.

Other Data: Obt. in soln., 95-97% pure

>>Variant: α -D-Furanose-form

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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

>>Derivative: Me glycoside

Synonym(s): Methyl α -D-*threo*-pentulofuranoside

CAS Registry Number: 53756-31-3

Molecular Formula: C₆H₁₂O₅

Molecular Weight: 164.158

Accurate Mass: 164.068475

Percentage Composition: C 43.90%; H 7.37%; O 48.73%

Physical Description: Syrup

Optical Rotation: $[\alpha]$