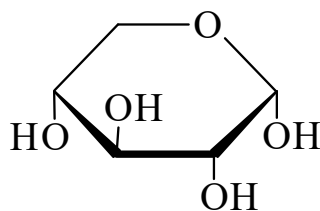




>>Entry Name: Xylose, 9CI, 8CI, USAN

ENTRY UNDER REVIEW

Synonym(s): Wood sugar. Losan. Xylomed. Xylo-Pfan. FEMA 3606



α -D-Pyranose-form

Related CAS Registry Numbers(s): 3154-36-7 41546-29-6 41546-30-9

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: 58-86-6

Molecular Formula: C₅H₁₀O₅

Molecular Weight: 150.131

Accurate Mass: 150.052825

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

industrially by hydrol. of wood

Use/Importance: Diagnostic aid (intestinal function determination). Inexpensive starting material for synthesis

Physical Description: Needles (EtOH)

Melting Point: Mp 153° (144-145°)

Optical Rotation: [α]_D²⁰ +19 (H₂O, equilib.)

pKa Value: pK_{a1} 12.29 (25°)

Other Data: Weak sweet taste, sweetness =0.26 x sucrose

Aldrich: W36060-0

Fluka: 95731

Supelco: 4-7253

>>Derivative: Phenyllosazone

Melting Point: Mp 165-167°

Optical Rotation: [α]_D -26 → +46 (EtOH)

>>Derivative: *p*-Bromophenylhydrazone

Melting Point: Mp 128°

Optical Rotation: [α]_D -21

>>Derivative: Di-Et dithioacetal

>>Derivative: Tetra-Ac

Synonym(s): Tetra-*O*-acetyl-D-xylose. *Aldehydo*-D-Xylose tetraacetate

CAS Registry Number: 30571-56-3

Molecular Formula: C₁₃H₁₈O₉

Molecular Weight: 318.28

Accurate Mass: 318.095085

Percentage Composition: C 49.06%; H 5.70%; O 45.24%

Physical Description: Cryst. (Et₂O)

Melting Point: Mp 87-89°

Optical Rotation: [α]_D²⁰ -22.5 (c, 2.5 in CHCl₃)

>>Derivative: 2-Me