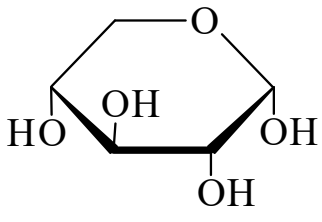
>>**Entry Name: Xylose,** 9CI, 8CI, USAN
ENTRY UNDER REVIEW
Synonym(s): Wood sugar. Losan. Xylomed. Xylo-Pfan. FEMA 3606



a-D-Pyranose-*form*

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

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%

>>**Variant:** D-form

CAS Registry Number: 58-86-6
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%

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: $[\alpha]_D^{20}$+19 (H_2O, 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:** Phenylosazone

Melting Point: Mp 165-167°
Optical Rotation: $[\alpha]_D$ –26 → +46 (EtOH)

>>**Derivative:** *p*-Bromophenylhydrazone

Melting Point: Mp 128°
Optical Rotation: $[\alpha]_D$ –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: $C_{13}H_{18}O_9$
Molecular Weight: 318.28
Accurate Mass: 318.095085
Percentage Composition: C 49.06%; H 5.70%; O 45.24%
Physical Description: Cryst. (Et_2O)
Melting Point: Mp 87-89°
Optical Rotation: $[\alpha]_D^{20}$–22.5 (c, 2.5 in $CHCl_3$)

>>**Derivative:** 2-Me