

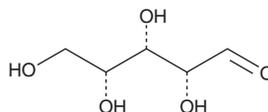
# PRODUCT INFORMATION



## D-(+)-Xylose

Item No. 33236

**CAS Registry No.:** 58-86-6  
**Formal Name:** 2R,3S,4R,5-tetrahydroxypentanal  
**MF:** C<sub>5</sub>H<sub>10</sub>O<sub>5</sub>  
**FW:** 150.1  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

D-(+)-Xylose is supplied as a crystalline solid. Aqueous solutions of D-(+)-xylose can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of D-(+)-xylose in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

D-(+)-Xylose is a monosaccharide.<sup>1</sup> It is enzymatically converted to various intermediates, which are utilized as carbon sources for energy production *via* several metabolic pathways, including the pentose phosphate and Dahms pathways, by a variety of microorganisms.<sup>2</sup> D-(+)-Xylose has commonly been used as a starting material in the commercial biosynthesis of the non-caloric sweetener xylitol, as well as biofuels, such as ethanol.<sup>3</sup>

### References

1. Craig, R.M. and Atkinson, A.J., Jr. D-xylose testing: A review. *Gastroenterology* **95(1)**, 223-231 (1988).
2. Zhao, Z., Xian, M., Liu, M., *et al.* Biochemical routes for uptake and conversion of xylose by microorganisms. *Biotechnol. Biofuels* **13**, 21 (2020).
3. Rafiqul, I.S.M. and Sakinah, A.M.M. Processes for the production of xylitol—a review. *Food Rev. Int.* **29(2)**, 127-156 (2013).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/09/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM