

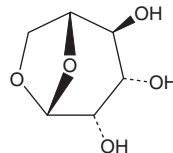
# PRODUCT INFORMATION



## 1,6-Anhydro-β-D-mannopyranose

Item No. 18892

**CAS Registry No.:** 14168-65-1  
**Formal Name:** 1,6-anhydro-β-D-mannopyranose  
**Synonyms:** 1,6-Anhydromannose, Mannosan, NSC 226600  
**MF:** C<sub>6</sub>H<sub>10</sub>O<sub>5</sub>  
**FW:** 162.1  
**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

1,6-Anhydro-β-D-mannopyranose is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,6-anhydro-β-D-mannopyranose in the solvent of choice, which should be purged with an inert gas. 1,6-Anhydro-β-D-mannopyranose is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 1,6-anhydro-β-D-mannopyranose in ethanol and DMSO is approximately 10 mg/ml and approximately 20 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 1,6-anhydro-β-D-mannopyranose can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 1,6-anhydro-β-D-mannopyranose in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

1,6-Anhydro-β-D-mannopyranose is a major organic tracer generated by burned cellulose.<sup>1,2</sup> This compound is one of several that are used to evaluate, in atmospheric samples, the burning of wood.<sup>3,4</sup>

### References

1. Nolte, C.G., Schauer, J.J., Cass, G.R., *et al.* Highly polar organic compounds present in wood smoke and in the ambient atmosphere. *Environ. Sci. Technol.* **35**(10), 1912-1919 (2001).
2. Simoneit, B.R. and Elias, V.O. Detecting organic tracers from biomass burning in the atmosphere. *Mar. Pollut. Bull.* **42**(10), 805-810 (2001).
3. Saffari, A., Daher, N., Samara, C., *et al.* Increased biomass burning due to the economic crisis in Greece and its adverse impact on wintertime air quality in Thessaloniki. *Environ. Sci. Technol.* **47**(23), 13313-13320 (2013).
4. Cordell, R.L., White, I.R., and Monks, P.S. Validation of an assay for the determination of levoglucosan and associated monosaccharide anhydrides for the quantification of wood smoke in atmospheric aerosol. *Anal. Bioanal. Chem.* **406**(22), 5283-5292 (2014).

#### 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, 12/02/2022

#### 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