

U. S. Department of Commerce
Alexander R. Trowbridge,

Secretary

National Bureau of Standards
A. V. Astin, Director

Certificate of Analysis

Standard Reference Material 1591

1,2-*O*-Isopropylidene- β -L-idofuranose

This Standard Reference Material is certified regarding its identity and has the following properties:

Melting Point ----- 114° – 115°C

Specific Rotation $[\alpha]_D^{20}$ ----- -27.8° (c 2; water)

Neither of the enantiomorphs of idose has been reported as a crystalline material, and the syrupy sugar is unstable, isomerizing to a ketose or losing water to form an anhydro-sugar. Reference samples of this sugar are obtained by hydrolysis of this Standard Reference Material with acetic acid. Thus, 2 mg of the Standard Reference Material dissolved in 0.5 ml of 70-percent acetic acid and warmed at 70°C for 2.5 hr provide L-idose free of the starting material and containing only a trace of impurity, possibly 1,6-anhydro-L-idopyranose.

Washington, D. C. 20234
January 18, 1968

W. Wayne Meinke, Chief
Office of Standard Reference Materials