

## Certificate of Analysis

Date of Testing: 2023-01-09 11:04:19  
Date of Next Testing: 2025-01-08 11:04:19  
Product Name: **D-(+)-Mannose**  
CAS Number: 3458-28-4  
Specifications & Purity: 99%  
Lot #: A2305378  
SKU #: **M103969**  
**Analysis: 158839**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(HPLC)	99-100 (%)	99.87500%
Heavy metal (as Pb)	0-10 (ppm)	0.00 ppm
Loss on drying	0-0.45 (%)	0.45 %
Specific Rotation [α] <sub>20</sub> /D(c=4 in H <sub>2</sub> O)	14-15.5 (°)	14.23°
Appearance (M103969)	White to Off-White Solid, Powder, or Crystals	White to Off-White Solid, Powder, or Crystals
Solubility in H <sub>2</sub> O , Colorless to Faint Yellow , Clear , 50 mg/ml H <sub>2</sub> O	pass	Pass
<sup>13</sup> C NMR Spectrum	Conforms to Structure	Conforms to Structure



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QA & QC Manager