

Shanghai Aladdin Biochemical Technology Co., LTD
809 Chuhua Branch Road, Fengxian District, Shanghai 201400, China

Certificate of Analysis

Date of Testing: 2022-11-17 12:17:20
Date of Next Testing: 2026-11-16 12:17:20
Product Name: **Mannitol**
CAS Number: 69-65-8
Specifications & Purity: Ultrapure, ≥99.0%(HPLC)
Lot #: K2215867
SKU #: **M108829**
Analysis: **085453**

Parameter	Limit Values	Result
Sulfate(SO ₄ ²⁻)	0-200 (ppm)	181.00000 ppm
Calcium(Ca)	0-100 (ppm)	0.00000 ppm
Phosphorus (P)	0-0.01 (%)	0.00600 %
Silicon(Si)	0-0.02 (%)	0.00140 %
Melting point	166-170 (°C)	169.93000 °C
Chloride (Cl ⁻)	0-50 (ppm)	24.00000 ppm
Copper(Cu)	0-50 (ppm)	0.00000 ppm
Sodium(Na)	0-200 (ppm)	0.00000 ppm
Purity(HPLC)	99-100 (%)	99.92100 %
Zinc(Zn)	0-10 (ppm)	0.00000 ppm
Potassium(K)	0-50 (ppm)	0.00000 ppm
loss on drying, 105 °C	0-0.5 (%)	0.40850 %
Iron(Fe)	0-50 (ppm)	0.00000 ppm
Magnesium(Mg)	0-50 (ppm)	0.00000 ppm
Lead(Pb)	0-50 (ppm)	0.00000 ppm
Reducing sugars	0-0.2 (%)	0.15000 %
Specific Rotation[α] _{25/D} (c=1 in 1%acidified Molybdate&H ₂ SO ₄)	137-145 (°)	143.10000 °
Appearance (M108829)	White Powder or Crystals	White Powder or Crystals
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility in H ₂ O	Almost transparency	almost transparency

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A handwritten signature in black ink that reads "John Su". The script is fluid and cursive.

John Su
QA & QC Manager