

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing:	2024-11-18 17:10:52
Date of Next Testing:	2028-11-17 17:10:52
Product Name:	Mannitol
CAS Number:	69-65-8
Specifications & Purity:	Ultra pure, ≥99%(HPLC)
Lot #:	K2413358
SKU #	M108829
Version	0
Analysis #:	427390
Storage Temperature:	Argon charged

Parameter	Limit Values	Result
Sulfate(SO42-)	0-200 (ppm)	0.00 ppm
Reducing sugars	0-0.2 (%)	0.00 %
Calcium(Ca)	0-100 (ppm)	0.00 ppm
Phosphorus (P)	0-0.01 (%)	0.00 %
Silicon(Si)	0-0.02 (%)	0.00 %
Melting point	166-170 (°C)	167.89000 °C
Chloride (Cl-)	0-50 (ppm)	0.00 ppm
Copper(Cu)	0-50 (ppm)	0.00 ppm
Sodium(Na)	0-200 (ppm)	0.00 ppm
Purity(HPLC)	99-100 (%)	99.44400 %
Zinc(Zn)	0-10 (ppm)	0.00 ppm
Specific Rotation $[\alpha]_{25}^D(c=1 \text{ in } 1\% \text{ acidified Molybdate \& H}_2\text{SO}_4)$	137-145 (°)	142.81 °
Potassium(K)	0-50 (ppm)	0.00 ppm
loss on drying, 105 °C	0-0.5 (%)	0.10 %
Iron(Fe)	0-50 (ppm)	0.00 ppm
Magnesium(Mg)	0-50 (ppm)	0.00 ppm
Lead(Pb)	0-50 (ppm)	0.00 ppm
Appearance (M108829)	White Powder or Crystals	White Powder or Crystals
Solubility in H2O	Almost transparency	almost transparency
Infrared spectrum	Conforms to Structure	Conforms to Structure



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A handwritten signature in black ink that reads "John Su". The signature is written in a cursive, flowing style.

John Su
QA & QC Manager