

## Certificate of Analysis

Product Name: **Mannitol**  
 CAS #: **69-65-8**  
 Residual Solvents: **None**  
 Starting Material: **Glucose**  
 Country of Origin: **China**  
 Batch Number: **Varies**  
 Manufacture Date: **Varies**  
 Retest Date: **Varies**

## Test Results Obtained by PureBulk

ITEMS	SPECIFICATIONS	RESULTS
Mannitol (HPLC)	≥97.0%	98.36%
Aerobic Plate Count	≤1000 cfu/g	<20 cfu/g
Coliforms	≤100 cfu/g	<20 cfu/g
<i>E. Coli</i>	Negative	Absent
<i>Staph aureus</i>	Negative	Absent
Yeast & Mold	≤100 cfu/g	<20 cfu/g
<i>Salmonella</i>	Negative	Absent
<i>Pseudo. aeruginosa</i>	Negative	Absent
Conclusion (PureBulk):	This product conforms to standards	

The following information is an indirect translation of information provided from the Manufacturer's Certificate of Analysis, and should not be used solely as an instrument for strict quality control.

ITEMS	SPECIFICATIONS	RESULTS
Appearance	White or almost white crystals or powder	Conforms
Solubility	Freely soluble in water, practically insoluble in ethanol (96 per cent)	Conforms
Specific Rotation	+23°~25°	+24.1°
Melting Point	165.0°C~170.0°C	166.2°C~167.2°C
Infrared Absorption	Conforms	Conforms
Appearance of solution	Clear and colorless	Conforms
Conductivity	≤20 μS/cm	1.6 μS/cm
Reducing Sugars	≤0.1%	<0.1%
A (sorbitol)	≤2.0%	0.29%
B+C (Maltitol + Isomalt)	≤2.0%	0.00%
Unspecified	≤0.10%	0.00%
Total	≤2.0%	0.29%
Disregard Limit	≤0.05%	<0.05%
Nickel	≤1 ppm	<1 ppm
Heavy Metals	≤5 ppm	<5 ppm
Loss on Drying	≤0.5%	0.16%
TAMC	≤10 <sup>3</sup> cfu/g	<10 cfu/g
TYMC	≤10 <sup>2</sup> cfu/g	10 cfu/g
<i>E. Coli</i>	Negative/100g	Negative
<i>Salmonella</i>	Negative/100g	Negative
Bacterial Endotoxins	≤2.5 EU/g	<2.5 EU/g
Assay	97.0%~102%	99.8%
Conclusion (Manufacturer):	This product conforms to BP/USP/EP standards	

**Additional Information:** Non-Allergen || Melamine Free || Gluten-Free || Sugar-Free || No pesticides || BSE/TSE Free || GRAS - Yes || Vegan/Vegetarian || Sewer Sludge Used - No

**Sterilization Method:** Non-ETO || Non-Irradiation

**GMO Statement:** Non-GMO

**Storage Conditions:** **Keep in sealed container under 25°C.**  
**Keep away from strong light, heat and moisture.**

*Purebulk.Inc verifies that the information contained herein is true and correct to the best of our knowledge.*

*Verified By: Candace Gibson*

( This document was produced electronically and is valid without signature. )