



Xi'an Green Spring Technology Co.,Ltd

Certificate of Analysis

Product Name: D Mannitol

Batch No.: 230430M

Manufacture Date: Apr.30, 2023

Non-Irradiated/Non-ETO/Treat by Heat Only

Country of Origin: P. R. China

Expired Date: Apr.29, 2025

Solvents: Ethanol and Water

Analysis Item	Specification	Result	Method
Assay	≥ 99.0%	99.18%	HPLC
Appearance	White crystalline powder	Complies	Visual
Odor	Characteristic	Complies	Organoleptic
Identification	Positive	Complies	FTIR
Melting Point	126-134 °C	128.0-132.0 °C	USP40-NF35<741>
Optical Rotation	+13.3°-+14.3°	+13.7°	USP40-NF35<781>
Powder Size	≥95% through 30 mesh	Complies	USP #30 Sieve
Bulk Density	0.30-0.50 g/mL	0.37 g/mL	USP40-NF35<616>
Tapped Density	0.45-0.75 g/mL	0.52 g/mL	USP40-NF35<616>
Solubility	Clear and colorless	Complies	H ₂ O, 10%
Loss on Drying	≤0.5%	0.04%	USP40-NF35<731>
Residue on Ignition	≤0.1%	0.05%	USP40-NF35<281>
Pesticide Residues	USP<561>	Complies	USP40-NF35<561>
Total Heavy Metals	≤10 μg/g	Complies	USP40-NF35<231>
Arsenic (As)	≤1.0 μg/g	ND (< 0.1 μg/g)	ICP-MS
Cadmium (Cd)	≤ 0.5 μg/g	ND (< 0.01 μg/g)	ICP-MS
Lead (Pb)	≤ 1.0 μg/g	ND (< 0.1 μg/g)	ICP-MS
Mercury (Hg)	≤0.5 μg/g	ND (< 0.01 μg/g)	ICP-MS
Total Plate Count	≤1,000 cfu/g	< 10 cfu/g	USP40-NF35<2021>
Molds and Yeasts	≤100 cfu/g	< 10 cfu/g	USP40-NF35<2021>
<i>Salmonella</i>	Absence	Complies	USP40-NF35<2022>
<i>E. Coli</i>	Absence	Complies	USP40-NF35<2022>
<i>Staphylococcus aureus</i>	Absence	Complies	USP40-NF35<2022>
Aflatoxins	≤20 ppb	ND	USP40-NF35<561>

Packing: 25 kg/drum, packing in paper-drums and two sealed plastic-bags in side.

Storage: Store in a well-closed container away from moisture, direct light and heat.

Conclusion: Conform to Specification.

Quality Assurance: Liang Yan

