

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-02-21 15:30:43
 Date of Next Testing: 2025-02-15 15:30:43
 Product Name: **D-Lactose monohydrate**
 CAS Number: 64044-51-5
 Specifications & Purity: Ultra Pure, ≥99.5%(HPLC)
 Lot #: H2218751
 SKU #: **L100103**
Analysis: **321979**
 Storage Temperature: Argon charged

Parameter	Limit Values	Result
Sulfate(SO42-)	0-50 (%)	43.20 %
Strontium(Sr)	0-5 (ppm)	1.30 ppm
Chromium(Cr)	0-5 (ppm)	0.10 ppm
Aluminum(Al)	0-5 (ppm)	2.03 ppm
UV Absorbance 280nm	0-0.02	0.01
Cobalt(Co)	0-5 (ppm)	0.02 ppm
PH	3.5-6	4.30
Barium(Ba)	0-5 (ppm)	0.01 ppm
Bismuth(Bi)	0-5 (ppm)	0.30 ppm
Iron(Fe)	0-5 (ppm)	0.26 ppm
Zinc(Zn)	0-5 (ppm)	0.00 ppm
UV Absorbance 260nm	0-0.02	0.01
Molybdenum(Mo)	0-5 (ppm)	0.00 ppm
Chloride (Cl-)	0-50 (ppm)	12.60 ppm
Copper(Cu)	0-5 (ppm)	2.30 ppm
Purity(HPLC)	99.5-100 (%)	99.80000 %
(Pb)Lead	0-5 (ppm)	0.28 ppm
(As)Arsenic	0-0.1 (ppm)	0.07 ppm
Magnesium(Mg)	0-5 (ppm)	0.05 ppm
Lithium(Li)	0-5 (ppm)	0.15 ppm
Calcium(Ca)	0-10 (ppm)	3.66 ppm
Potassium(K)	0-50 (ppm)	0.00 ppm
Nickel(Ni)	0-5 (ppm)	0.00 ppm
Cadmium(Cd)	0-5 (ppm)	0.00 ppm
Ignition Residue (as sulfate)	0-0.05 (%)	0.03 %
Manganese(Mn)	0-5 (ppm)	0.01 ppm

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Parameter	Limit Values	Result
Sodium(Na)	0-50 (ppm)	1.60 ppm
Specific Rotation [a] ₂₀ /D(c=10 in water,22h)	52-54 (°)	53.18000°
Appearance (L100103)	Colorless or White Powder or Crystals	Colorless or White Powder or Crystals
Insoluble matter	pass	Pass
Solubility in H ₂ O , Colorless and clear(0.5M,20°C)	pass	Pass
λ,0.5 M in H ₂ O	Pass	Pass

A handwritten signature in black ink that reads "John Su".

John Su
QA & QC Manager