

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2025-09-16 15:41:36
 Date of Next Testing: 2029-09-15 15:41:36
 Product Name: **L-(-)-Malic acid**
 CAS Number: 97-67-6
 Specifications & Purity: CP
 Lot #: I2509753
 SKU #: **M105696**
 Version: **0**
 Analysis #: **580072**
 Storage Temperature: Protected from light, Room temperature, Desiccated, Cool

Parameter	Limit Values	Result
Specific Rotation [a] _D ²⁰ (c=8.5 in H ₂ O)	-2.6--1.6 (°)	-1.93400 °
(As) Arsenic	0-2 (ppm)	0.00000 ppm
Melting point	99-107 (°C)	103.96000 °C
Sulfate (SO ₄ ²⁻)	0-300 (ppm)	100.00000 ppm
Chloride (Cl ⁻)	0-100 (ppm)	0.69000 ppm
Purity (Neutralization titration)	98-102 (%)	99.08000 %
fumaric acid	0-0.2 (%)	0.00000 %
Sulfate Ash	0-0.2 (%)	0.00000 %
Heavy metal (as Pb)	0-20 (ppm)	0.00000 ppm
Appearance (M105696)	White Powder or Crystals	White Powder or Crystals
Solubility in H ₂ O, Solution transparent	pass	Pass



John Su
QA & QC Manager