

Certificate of Analysis

Date of Testing: 2025-02-13 16:18:12

Date of Next Testing: 2029-02-12 16:18:12

Product Name: **L-(-)-Malic acid**

CAS Number: 97-67-6

Specifications & Purity: CP

Lot #: B2510270

SKU #: **M105696**

Version: **0**

Analysis #: **472905**

Storage Temperature: Protected from light, Desiccated

Parameter	Limit Values	Result
Specific Rotation [a] _D 20/D(c=8.5 in H ₂ O)	-2.6--1.6 (°)	-1.85 °
(As)Arsenic	0-2 (ppm)	1.00 ppm
Melting point	99-107 (°C)	104.96000 °C
Sulfate(SO ₄ 2-)	0-300 (ppm)	80.00 ppm
Chloride (Cl-)	0-100 (ppm)	30.84 ppm
Purity(Neutralization titration)	98-102 (%)	98.19 %
fumaric acid	0-0.2 (%)	0.00 %
Sulfate Ash	0-0.2 (%)	0.00 %
Heavy metal (as Pb)	0-20 (ppm)	0.00 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