

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

| | |
|--------------------------|----------------------------|
| Date of Testing: | 2024-08-08 15:07:33 |
| Date of Next Testing: | 2028-08-07 15:07:33 |
| Product Name: | L-(+)-Tartaric acid |
| CAS Number: | 87-69-4 |
| Specifications & Purity: | ACS, ≥99.5% |
| Lot #: | G2431524 |
| SKU # | T112460 |
| Version | 1 |
| Analysis #: | 380725 |
| Storage Temperature: | Room temperature |

| Parameter | Limit Values | Result |
|--|---------------------------------|---------------------------------|
| Iron(Fe) | 0-5 (ppm) | 0.00 ppm |
| Insoluble matter in H ₂ O | 0-0.005 (%) | 0.00 % |
| Phosphate(PO ₄) | 0-10 (ppm) | 0.00 ppm |
| Chloride (Cl ⁻) | 0-10 (ppm) | 0.00 ppm |
| Sulfate(SO ₄ ²⁻) | 0-0.002 (%) | 0.00 % |
| Heavy metal (as Pb) | 0-5 (ppm) | 0.50 ppm |
| Specific Rotation [α] ₂₀ /D(c=20 in H ₂ O) | 10.4-14.4 (°) | 12.55° |
| Ignition Residue (as sulfate) | 0-0.02 (%) | 0.00 % |
| Purity (Titration by NaOH) | 99.5-100.5 (%) | 100.06 % |
| Appearance (T112460) | white crystal or crystal powder | white crystal or crystal powder |
| Oxalate(C ₂ O ₄) (limit 0.1%) | Pass | Pass |
| Infrared spectrum | Conforms to Structure | Conforms to Structure |



John Su
QA & QC Manager