

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-11-20 16:00:19  
 Date of Next Testing: 2027-11-19 16:00:19  
 Product Name: **D-(-)-Tartaric acid**  
 CAS Number: 147-71-7  
 Specifications & Purity:  $\geq 99.5\%$   
 Lot #: K2310079  
 SKU #: **T107139**  
 Version: **1**  
 Analysis #: **068071**  
 Storage Temperature: Room temperature

| Parameter                                                                      | Limit Values                                                   | Result                                                         |
|--------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|
| Specific Rotation $[\alpha]_{20/D(c=20 \text{ in } H_2O)}$                     | -13--11 (°)                                                    | -11.42500 °                                                    |
| Enantiometric Excess                                                           | 99.5-100 (%)                                                   | 99.50000 %                                                     |
| Purity(Neutralization titration)                                               | 99-101 (%)                                                     | 99.25000 %                                                     |
| Infrared spectrum                                                              | Conforms to Structure                                          | Conforms to Structure                                          |
| Solubility in H <sub>2</sub> O , Colorless, Clear, 100 mg/mL, H <sub>2</sub> O | pass                                                           | Pass                                                           |
| Appearance (T107140)                                                           | White to Almost White Powder or Crystals or Granules or Chunks | White to Almost White Powder or Crystals or Granules or Chunks |



John Su  
QA & QC Manager