

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2025-08-23 15:15:31  
 Date of Next Testing: 2029-08-22 15:15:31  
 Product Name: **D-(-)-Mandelic Acid Ethyl Ester**  
 CAS Number: 10606-72-1  
 Specifications & Purity:  $\geq 98\%$ (GC)  
 Lot #: H2513168  
 SKU #: **E156470**  
 Version: **0**  
 Analysis #: **564004**  
 Storage Temperature: Room temperature

| Parameter                                                                   | Limit Values                                 | Result                                       |
|-----------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in CHCL}_3)$                  | -145--130 (°)                                | -139.20000 °                                 |
| Crystallization point                                                       | 26-31 (°C)                                   | 28.10000 °C                                  |
| Purity(GC)                                                                  | 98-100 (%)                                   | 99.68000 %                                   |
| Appearance (E156470)                                                        | Colorless or White to Yellow Solid or Liquid | Colorless or White to Yellow Solid or Liquid |
| Proton NMR spectrum                                                         | Conforms to Structure                        | Conforms to Structure                        |
| Solubility in CHCL <sub>3</sub> , colorless to faint yellow, Clear,50 mg/mL | pass                                         | Pass                                         |



John Su  
QA & QC Manager