

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-07-13 08:53:20  
Date of Next Testing: 2028-07-12 08:53:20  
Product Name: **Dimethyl L-(-)-Malate**  
CAS Number: 617-55-0  
Specifications & Purity: 98%  
Lot #: G2408191  
SKU #: **D102009**  
Version: **0**  
Analysis #: **344746**  
Storage Temperature: Store at 2-8°C

| Parameter                              | Limit Values                     | Result                           |
|--|----------------------------------|----------------------------------|
| Purity(GC)                             | 98-100 (%)                       | 98.25 %                          |
| Refractive index n <sub>20</sub> /D    | 1.4375-1.442                     | 1.44                             |
| Specific Rotation [α] <sub>20</sub> /D | -8.5--5.5 (°)                    | -8.48 °                          |
| Appearance (D102009)                   | Colorless to light yellow liquid | Colorless to light yellow liquid |
| Proton NMR spectrum                    | Conforms to Structure            | Conforms to Structure            |



John Su  
QA & QC Manager