

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-05-27 11:17:53  
 Date of Next Testing: 2026-05-26 11:17:53  
 Product Name: **L-Arginine ethyl ester dihydrochloride**  
 CAS Number: 36589-29-4  
 Specifications & Purity:  $\geq 98\%$   
 Lot #: E2225201  
 SKU #: **A109012**  
 Version: **3**  
 Analysis #: **076465**  
 Storage Temperature: Store at -20°C, Argon charged

| Parameter                                                       | Limit Values          | Result                |
|-----------------------------------------------------------------|-----------------------|-----------------------|
| Water by Karl Fischer                                           | 0-0.5 (%)             | 0.46610 %             |
| Purity                                                          | 98-102.5 (%)          | 100.30000 %           |
| Purity(HPLC)                                                    | 98-100 (%)            | 99.93700 %            |
| Specific Rotation $[\alpha]_{25/D}(c=2 \text{ in H}_2\text{O})$ | 9-15 (°)              | 11.23900 °            |
| Proton NMR spectrum                                             | Conforms to structure | Conforms to Structure |
| Appearance (A109012)                                            | white powder or solid | white powder or solid |



John Su  
QA & QC Manager