

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2025-08-19 16:06:36

Date of Next Testing: 2029-08-18 16:06:36

Product Name: **L-Glutamic acid diethyl ester hydrochloride**

CAS Number: 1118-89-4

Specifications & Purity:  $\geq 97\%$

Lot #: K2105701

SKU #: **G116982**

Version: **0**

Analysis #: **557049**

Storage Temperature: Room temperature

| Parameter                                                                       | Limit Values                                      | Result                                            |
|---------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| Purity(HPLC)                                                                    | 97-100 (%)                                        | 98.04400 %                                        |
| Purity(Titration by AgNO <sub>3</sub> )                                         | 96.5-103.5 (%)                                    | 101.11800 %                                       |
| Specific Rotation [α] <sub>20/D</sub> (c=3.6 in EtOH)                           | 21-24 (°)                                         | 22.01200 °                                        |
| Melting point                                                                   | 108-117 (°C)                                      | 108.62800 °C                                      |
| Appearance (G116982)                                                            | white to off-white powder, crystals and/or chunks | white to off-white powder, crystals and/or chunks |
| Proton NMR spectrum                                                             | Conforms to Structure                             | Conforms to Structure                             |
| Solubility in H <sub>2</sub> O , Colorless ,Clear ,50 mg/mL in H <sub>2</sub> O | pass                                              | Pass                                              |



John Su  
QA & QC Manager