

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-12-01 12:12:10  
 Date of Next Testing: 2026-11-30 12:12:10  
 Product Name: **L-Gulonic acid  $\gamma$ -lactone**  
 CAS Number: 1128-23-0  
 Specifications & Purity:  $\geq 98\%$   
 Lot #: K2229876  
 SKU #: **G113705**  
 Version: **1**  
 Analysis #: **145667**  
 Storage Temperature: Store at 2-8°C, Argon charged

| Parameter                                                       | Limit Values                          | Result                                |
|-----------------------------------------------------------------|---------------------------------------|---------------------------------------|
| Melting point                                                   | 184-188 (°C)                          | 187.79000 °C                          |
| Purity(HPLC)                                                    | 98-100 (%)                            | 99.62900 %                            |
| Specific Rotation $[\alpha]_{20/D}(c=2 \text{ in H}_2\text{O})$ | 55-57 (°)                             | 56.14000 °                            |
| Solubility in H <sub>2</sub> O , colorless and clear (50mg/ml)  | pass                                  | Pass                                  |
| Infrared spectrum                                               | Conforms to Structure                 | Conforms to Structure                 |
| Appearance (G113705)                                            | White to Off-White Powder or Crystals | White to Off-White Powder or Crystals |



John Su  
QA & QC Manager