

ALADDIN SCIENTIFIC CORPORATION  
 14078 Meridian Parkway, Riverside, CA. 92518

### Certificate of Analysis

Date of Testing: 2024-11-20 14:12:39  
 Date of Next Testing: 2026-11-20 14:12:39  
 Product Name: **D-(+)-Gluconic acid δ-lactone**  
 CAS Number: 90-80-2  
 Specifications & Purity: Moligand™, ≥99%  
 Lot #: K2419052  
 SKU #: **G106879**  
 Version: **3**  
 Analysis #: **404261**  
 Storage Temperature: Room temperature, Argon charged, Desiccated, Cool

Parameter	Limit Values	Result
Reducing Substances	0-0.5 (%)	0.23000 %
Heavy metal (as Pb)	0-20 (ppm)	15.00000 ppm
Pb measure	0-10 (ppm)	0.00000 ppm
Purity(HPLC)	99-100 (%)	99.50000 %
Specific Rotation [α] <sub>20</sub> /D(c=10 in H <sub>2</sub> O)	60-67 (°)	63.40000 °
Melting point	155-163 (°C)	157.60000 °C
Solubility in H <sub>2</sub> O , Colorless to Very Faint Yellow ,Clear,100 mg/mL	pass	Pass
Proton NMR spectrum	Conforms to structure	Conforms to Structure
Appearance (G106879)	colorless or White to Off-White Powder or Crystals or Crystalline powder	colorless or White to Off-White Powder or Crystals or Crystalline powder



John Su  
 QA & QC Manager