

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-11-29 15:42:12  
Date of Next Testing: 2026-11-29 15:42:12  
Product Name: **D-(+)-Gluconic acid  $\delta$ -lactone**  
CAS Number: 90-80-2  
Specifications & Purity: Moligand™,  $\geq 99\%$   
Lot #: K2422408  
SKU #: **G106879**  
Version: **3**  
Analysis #: **437664**  
Storage Temperature: Room temperature, Argon charged, Desiccated, Cool

Parameter	Limit Values	Result
Reducing Substances	0-0.5 (%)	0.10000 %
Heavy metal (as Pb)	0-20 (ppm)	1.00000 ppm
Pb measure	0-10 (ppm)	0.00000 ppm
Purity(HPLC)	99-100 (%)	99.65000 %
Specific Rotation $[\alpha]_{20}^D(c=10 \text{ in H}_2\text{O})$	60-67 ( $^\circ$ )	60.30000 $^\circ$
Melting point	155-163 ( $^\circ\text{C}$ )	157.60000 $^\circ\text{C}$
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
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



John Su  
QA & QC Manager