

Certificate of Analysis

Date of Testing: 2023-08-29 14:18:42

Date of Next Testing: 2027-08-28 14:18:42

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

CAS Number: 138-15-8

Specifications & Purity: $\geq 98\%$

Lot #: H2324508

SKU #: **G113196**

Version: **0**

Analysis #: **263431**

Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	99.39800 %
Purity(Neutralization titration)	97.5-102.5 (%)	99.85 %
Carbon by Elemental Analysis	31.9-33 (%)	32.68 %
Specific Rotation $[\alpha]_{20/D(c=6 \text{ in H}_2\text{O})}$	22-25 (°)	22.59°
Nitrogen by Elemental Analysis	7.3-7.9 (%)	7.65 %
Solubility in H ₂ O , Colorless ,Clear ,50 mg/mL in H ₂ O	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure
Appearance (G113196)	White powder	White powder



John Su
QA & QC Manager