

## **CERTIFICATE OF ANALYSIS**

Product Name	L-Glutamine	Batch Number	010022250523
CAS Number	56-85-9	Manufacture Date	May.23,2025
Molecular formula	C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub>	Best Used Before	May.22,2027

Items	Specifications	Results
Appearance	White crystalline slight sweet powder	Conforms
Identification	Infrared absorption	Conforms
Assay	98.5% to 101.5%	99.6%
Specific rotation [ $\alpha$ ] <sub>D<sup>20</sup></sub>	+6.3 to+7.3°	+6.67°
Loss on drying	≤0.30%	0.13%
Residue on ignition	≤0.10%	0.09%
Mesh size	≥95% pass 120 mesh	Conforms
Chloride	≤0.05%	<0.05%
Sulfate	≤0.03%	<0.03%
Heavy metals	≤5ppm	<5ppm
Arsenic(as As <sub>2</sub> O <sub>3</sub> )	≤1ppm	<1ppm
Iron	≤30ppm	<30ppm
Lead	≤3ppm	<3ppm
Cadmium	≤1ppm	<1ppm
Mercury	≤0.1ppm	<0.1ppm
Bulk density	≥0.5g/ml	Conforms
Total plate count	≤1,000cfu/g	<1,000cfu/g
Yeast and mould	≤100cfu/g	<100cfu/g
E.Coli	Negative	Negative
Salmonella	Absent in 10g	Negative
S.aureus	Negative	Negative

**Conclusion:** Qualified.

Net weight: 25.0kgs/Drum

Gross weight: 27.5kgs±0.5kg/Drum

24 months under 30°C in a well-closed container and away from moisture, light, oxygen.

Packed in paper drum or carton with two plastic bags inside.