

CERTIFICATE OF ANALYSIS

Product Name: L-Glutamine	
Batch No.: 1211212016	Quantity: 1000kg
Manufacture Date: 12 th Dec. 2021	Retest Date: 11 th Dec. 2024

Item:	Standard	Results
Appearance	Crystalline powder	Crystalline powder
Colour	Whitish	Whitish
Aroma	None	None
Flavour	Slightly sweet	Slightly sweet
Identification	Infrared absorption	Infrared absorption
Assay	98.5 – 101.5%	99.6%
Mesh Size	≥95% pass 120mesh	Conforms
Bulk Density	≥0.5g/ml	0.64g/ml
Specific Rotation [α] _{D20} HCL solution	+6.3° - +7.3°	+6.80°
Loss on Drying	≤0.3%	0.06%
Ignited Residue	≤0.1%	0.07%
Heavy Metals	≤5ppm	<5ppm
(Arsenic)	≤1ppm	Conforms
(Lead)	≤3ppm	Conforms
Cadmium	≤1ppm	Conforms
Mercury	≤0.1ppm	Conforms
Total Plate Count	≤1000 cfu/g	Conforms
Yeast and Moulds	≤100 cfu/g	Conforms
Salmonella	Absent in 10g	Conforms
Coliforms	≤50 MPN/g	Negative
E.Coli	<MPN/g	Negative
Staph. aureus	Absent in 10g	Conforms
Conclusion: This batch is conforming with the Standard of FCC.		