

# Certificate of Analysis

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Product Name: L-Glutamine  
Manufacture Date: Mar, 2025

CAS No.: 56-85-9  
Expiry Date: Mar, 2027

Batch No.: GLN/2503/02  
Standard: USP 46

| Parameter                           | Specifications                       | Result      |
|-------------------------------------|--------------------------------------|-------------|
| Appearance                          | White crystale or crystalline powder | Conforms    |
| Identification                      | Infrared Spectroscopy                | Conforms    |
| Assay                               | 98.5% to 101.5% (On dry basis)       | 99.8%       |
| Specific rotation $[\alpha]_D^{20}$ | +6.3° to +7.3°                       | +6.5°       |
| Chloride                            | NMT 0.05%                            | < 0.05%     |
| Sulfate                             | NMT 0.03%                            | < 0.03%     |
| Iron                                | NMT 30.0 ppm                         | < 30.0 ppm  |
| Related compounds                   | NMT 0.5%                             | Conforms    |
| Loss on drying                      | NMT 0.3%                             | 0.14%       |
| Residue on ignition                 | NMT 0.3%                             | 0.09%       |
| Total Plate Count                   | NMT 1000 cfu/g                       | <1000 cfu/g |
| Total Yeast & Molds                 | NMT 100 cfu/g                        | < 100 cfu/g |
| E.Coli                              | Negative/g                           | Negative    |
| Salmonella                          | Negative/25g                         | Negative    |

Remark: This product conforms with the requirements of the current specifications.  
The above information is derived from our quality checks. It does not relieve the purchaser from examining the product upon delivery and gives no assurance of the suitability of the product for any particular purpose.

Reported by:

Reviewed by:

Approved by:

