

## Product Specification

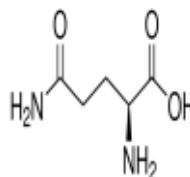
Product Name:  
L-Glutamine -

Product Number: **G5792**

CAS Number: 56-85-9

Formula: C<sub>5</sub>H<sub>10</sub>N<sub>2</sub>O<sub>3</sub>

Formula Weight: 146.14 g/mol



| TEST                    | Specification      |
|-------------------------|--------------------|
| Appearance (Color)      | White              |
| Appearance (Form)       | Powder             |
| Solubility (Turbidity)  | Clear              |
| 0.5 g to 20 mL of water |                    |
| Solubility (Color)      | Colorless          |
| 0.5 g to 20 mL of water |                    |
| Solubility (Form)       | Solution           |
| 0.5 g to 20 mL of water |                    |
| Identification (USP)    | Pass               |
| Iron (Fe)               | ≤ 10 ppm           |
| Loss on Drying (USP)    | ≤ 0.30 %           |
| Assay                   | 99.0 - 101.0 %     |
| Ammonium                | ≤ 0.10 %           |
| Chloride                | ≤ 0.020 %          |
| Cytotoxicity            | Pass               |
| pH                      | 4.5 - 6.0          |
| 1.0 g in 50 mL water    |                    |
| Endotoxin Assay         | ≤ 1 EU/mg          |
| Related Compounds       | Pass               |
| Residual Solvents       | Meets Requirements |
| Residue on Ignition     | ≤ 0.10 %           |
| Arsenic (As)            | ≤ 1.0 ppm          |
| Specific Rotation       | 31.5 - 33.0 °      |
| c = 10, 2 N HCl, 20°C   |                    |

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



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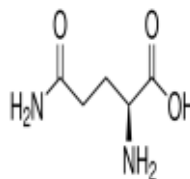
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| TEST   | Specification     |
|--|-------------------|
| Specific Rotation (USP)<br>c = 4, aqueous, dried basis, 20°C | 6.3 - 7.3 °       |
| Sulfate (SO <sub>4</sub> )                                   | ≤ 0.020 %         |
| Origin   | Non-Animal Source |

Specification: PRD.2.ZQ5.10000050953

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