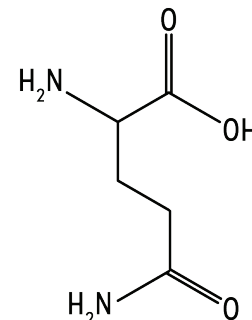


# Product Specification

<b>Product Name</b>	L-Glutamine
<b>Compendia</b>	USP/JP/DAB
<b>CAS #</b>	56-85-9
<b>Formula</b>	C <sub>5</sub> H <sub>10</sub> N <sub>2</sub> O <sub>3</sub>
<b>Molecular Weight</b>	146.14
<b>Description</b>	White crystals or crystalline powder; slightly characteristic taste.
<b>Solubility</b>	Freely soluble in formic acid, soluble in water, practically insoluble in ethanol (99.5).
<b>Identification</b>	Compare the infrared absorption spectrum of the sample with that of the standard by potassium bromide disc method.



## Test Specification

<b>Specific Rotation @ 20°C</b>	+31.5 to 33.0° [Dried sample, C=10, 2 mol/L HCl]
<b>Specific Rotation @ 20°C</b>	+6.3 to 7.3° [Dried sample, C=4, H <sub>2</sub> O, Warming at 40°C]
<b>State of Solution</b>	Clear and Colorless; Not less than 98.0%
<b>Chloride (Cl)</b>	Not more than 0.020%
<b>Ammonium (NH<sub>4</sub>)</b>	Not more than 0.10%
<b>Sulfate (SO<sub>4</sub>)</b>	Not more than 0.020%
<b>Iron (Fe)</b>	Not more than 10ppm
<b>Heavy Metals (Pb)</b>	Not more than 10ppm
<b>Arsenic (As<sub>2</sub>O<sub>3</sub>)</b>	Not more than 1ppm
<b>Related Substances</b>	Conforms
<b>Loss on Drying</b>	Not more than 0.30%
<b>Residue on ignition (Sulfated)</b>	Not more than 0.10%
<b>Assay</b>	99.0 to 101.0%
<b>pH</b>	4.5 to 6.0
<b>Endotoxin</b>	Less than 50.0 EU/g