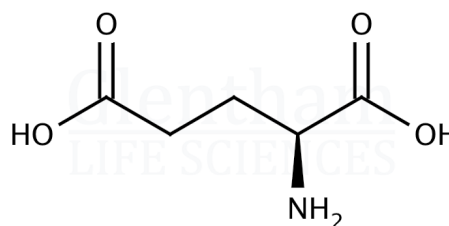


## Product Specification

Product Name	L-Glutamic acid
Glenthams Code	GM3277
CAS Number	56-86-0
EINECS	200-293-7
MDL Number	MFCD00002634
PubChem SID	310274214

Molecular Weight	147.13
Molecular Formula	C <sub>5</sub> H <sub>9</sub> NO <sub>4</sub>
Storage Temp.	+20°C



Property	Specification
Physical Description	White to almost white crystalline powder
Identification (IR)	To conform to standard
Solubility (10% in 2M HCl)	Clear, colourless solution
Transmittance	≥ 98.0%
Specific Optical Rotation ([α] <sub>D</sub> <sup>20</sup> )	+31.5 - +32.4 ° (c=10, 2M HCl)
pH	3.0 - 3.5
Heavy Metals (as Pb)	≤ 10ppm
Arsenic (As)	≤ 1ppm
Iron (Fe)	≤ 10ppm
Ammonium (NH <sub>4</sub> )	≤ 0.02%
Sulphate (SO <sub>4</sub> )	≤ 0.02%
Chloride (Cl)	≤ 0.02%
Other Amino Acids	None detected
Any Individual Impurity (TLC)	≤ 0.5%
Total Impurities (TLC)	≤ 2.0%
Residue on Ignition	≤ 0.1%
Loss on Drying	≤ 0.1% (105°C, 3h)
Assay (Titration)	99.0 - 101.0 % (dried basis)
Pharmacopoeia Specification(s)	USP, AJI

Specification Version	- v1.2
Date Created	- 2024-03-04

Glenthams Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check [www.glenthams.com](http://www.glenthams.com) or contact us using the details above for the current version of this document.

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