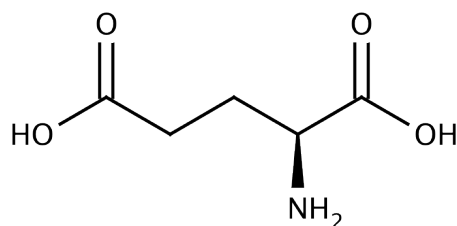


Product Specification

Product Name	L-Glutamic acid
Glentham Code	GM3277
CAS Number	56-86-0
EINECS	200-293-7
MDL Number	MFCD00002634
PubChem SID	310274214
Molecular Weight	147.13
Molecular Formula	C ₅ H ₉ NO ₄
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] _D ²⁰)	+31.5 - +32.5 ° (c=10, 2M HCl)
pH	3.0 - 3.5
Lead (Pb)	≤ 3ppm
Cadmium (Cd)	≤ 1ppm
Mercury (Hg)	≤ 0.1ppm
Arsenic (As)	≤ 1ppm
Iron (Fe)	≤ 10ppm
Ammonium (NH ₄)	≤ 0.02%
Sulphate (SO ₄)	≤ 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 - v1.1
Date Created - 2021-02-22

Glentham Life Sciences confirm that the above referenced product conformed to the information displayed in this document on the quality release date. Please check www.glentham.com or contact us using the details above for the current version of this document.

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