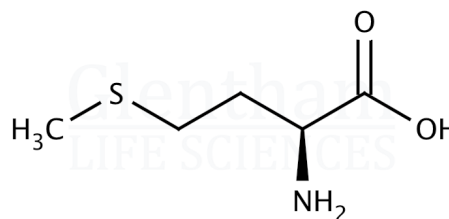


## Certificate of Analysis

Product Name	L-Methionine, 99%, GlenCell™, suitable for cell culture, Ph. Eur., USP grade
Glentham Code	GM9348
CAS Number	63-68-3
EINECS	200-562-9
MDL Number	MFCD00063097
Batch Number	447PDY
Molecular Weight	149.21
Molecular Formula	C <sub>5</sub> H <sub>11</sub> NO <sub>2</sub> S
Storage Temp.	+20°C



Property	Specification	Batch 447PDY
Physical Description	White crystalline powder	White crystalline powder
Identification	To pass tests	Conforms
Solubility (2.5% in water)	Clear, colourless solution	Clear, colourless solution
pH (2.5% in water)	5.6 - 6.1	5.9
Specific Optical Rotation	+23.0 - +24.0 ° (20°C, 2% in 6 M HCl)	+23.5°
Specific Optical Rotation	+22.4 - +24.7 ° (25°C, 2% in 6 M HCl)	+23.6°
Ammonium (NH <sub>4</sub> )	≤ 0.02%	≤ 0.005%
Chloride (Cl)	≤ 0.02%	≤ 0.017%
Sulphate (SO <sub>4</sub> )	≤ 0.03%	≤ 0.02%
Iron (Fe)	≤ 10ppm	Conforms
Heavy Metals (as Pb)	≤ 5ppm	Conforms
Arsenic (As <sub>2</sub> O <sub>3</sub> )	≤ 1ppm	Conforms
Ninhydrin-positive substances	≤ 0.5%	≤ 0.3%
Loss on Drying	≤ 0.20%	0.0%
Sulphated Ash	≤ 0.1%	0.0%
Endotoxins	≤ 6.0EU/g	≤ 3EU/g
Assay (Titration)	99.0 - 101.0 % (dried basis)	100.0%
Pharmacopoeia Specification(s)	EP, USP	Conforms
Origin	Non-animal	Conforms

Specification Version	v1.1
Manufacture Date	2020-12-15
Re-Test Date	2025-08-01

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](http://www.glentham.com) or contact us using the details above for the current version of this document.

This document was generated electronically and is therefore valid without signature. © Glentham Life Sciences Ltd, 2024