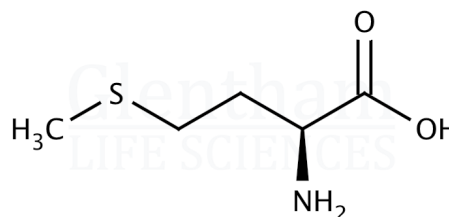


Certificate of Analysis

Product Name	L-Methionine
Glenthams Code	GM0532
CAS Number	63-68-3
EINECS	200-562-9
MDL Number	MFCD00063097
PubChem SID	310276219
Batch Number	134GIE
Molecular Weight	149.21
Molecular Formula	C ₅ H ₁₁ NO ₂ S
Storage Temp.	+20°C



Property	Specification	Batch 134GIE
Physical Description	White or off-white powder	Almost white powder
Identification	IR	Conforms
Solubility (5% in 1M HCl)	Clear, colourless solution	Clear, colourless solution
pH (1% in water)	5.6 - 6.1	5.9
Specific Optical Rotation	+22.4 - +24.7 °	+23.8°
Chloride (Cl)	≤ 0.05%	≤ 0.05%
Sulphate (SO ₄)	≤ 0.03%	≤ 0.03%
Heavy Metals (as Pb)	≤ 15ppm	≤ 15ppm
Lead (Pb)	≤ 3ppm	≤ 3ppm
Mercury (Hg)	≤ 0.1ppm	≤ 0.1ppm
Arsenic (As)	≤ 1ppm	≤ 1ppm
Cadmium (Cd)	≤ 1ppm	≤ 1ppm
Iron (Fe)	≤ 30ppm	≤ 30ppm
Any Individual Impurity	≤ 0.5% (TLC)	≤ 0.5%
Total Impurities	≤ 2.0% (TLC)	≤ 2.0%
Loss on Drying	≤ 0.3% (105°C)	0.1%
Residue on Ignition	≤ 0.4%	0.08%
Assay	98.5 - 101.5 %	99.3%
Pharmacopoeia Specification(s)	USP	Conforms

Specification Version	v1.0
Manufacture Date	2022-05-08
Re-Test Date	2030-10-27

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 or contact us using the details above for the current version of this document.

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