



CERTIFICATE OF ANALYSIS

Product Name: **L-Methionine**
USP Grade

Product Number:	M018	Lot Number:	02162018
Molecular Formula:	C ₅ H ₁₁ NO ₂ S	CAS Number:	63-68-3
Formula Weight:	149.21	Retest Date:	28 February 2021
Storage:	15 to 30°C		

<u>Test</u>	<u>Specifications</u>	<u>Results</u>
Appearance	White Crystalline Powder	PASS
Assay	98.5 - 101.5%	99.56 %
pH (2.5%, H ₂ O)	5.6 - 6.1	6.09
Endotoxin (100mg/L)	Report	0.10 EU/mL
Specific Rotation[α] ²⁰ _D	+22.4° to +24.7°	+23.52°
Chloride (Cl)	≤ 0.05%	≤ 0.05%
Sulfate (SO ₄)	≤ 0.03%	≤ 0.03%
Iron (Fe)	≤ 30 ppm	≤ 30 ppm
Heavy Metals (Pb)	≤ 15 ppm	≤ 15 ppm
Organic Volatile Impurities	Conform	Conform
Loss on Drying	≤ 0.3%	0.27%
Residue on Ignition	≤ 0.4%	0.30%

This product meets or exceeds the quality standards established by Caisson Laboratories, Inc.

Becky Kowallis 7/5/2016
Quality Control