

CERTIFICATE OF ANALYSIS

Product	L-Methionine
Production Date	2024.11.22
Expiration Date	2027.11.21
Lot Number	HHAD24112201

1. Chemical /Analytical Information

This product meets quality requirements of USP40 Monograph

Analysis Item	Specification	Method	Result
Characters, Appearance	White or almost white, crystalline powder or colourless crystals	Visual	White powder
Identification	Infrared absorption	USP40	Conform
Assay	NLT 98.5% and NMT 101.5%	USP40	100.20%
Residue on ignition	NMT 0.4%	USP40	0.06%
Chloride(CL)	NMT 0.05%	USP40	<0.05%
Sulfate(SO4)	NMT 0.03%	USP40	<0.03%
Iron(Fe)	NMT 30 ppm	USP40	<30 ppm
Lead	NMT 1 ppm	USP43	<1 ppm

Arsenic	NMT 0.5 ppm	USP43	<0.5 ppm
Cadmium	NMT 0.5 ppm	USP43	<0.5 ppm
Mercury	NMT 0.1 ppm	USP43	<0.1 ppm
Related compounds	Individual impurities: NMT 0.5%	USP40	<0.5%
	Total impurities: NMT 2.0%		<2.0%
Specific rotation $[\alpha]_D^{25}$	+22.4 ~ +24.7°	USP40	+23.55°
PH	5.6 ~ 6.1	USP40	5.71
Loss on drying	NMT 0.3%	USP40	0.15%

2. Microbiological Information

Analysis Item	Specification	Method	Result
Total Aerobic Microbial Count	NMT 1000 cfu/g	USP43	< 1000 cfu/g
Molds and Yeasts Count	NMT 100 cfu/g	USP43	< 100 cfu/g
Coliform bacteria	Negative/10g	Testing _{Plate}	Negative
Salmonella sp.	Negative/10g	Testing _{Plate}	Negative
Staphylococcus aureus	Negative/10g	Testing _{Plate}	Negative