

# NINGBO LONCIN BIOTECHNOLOGY CO., LTD

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## CERTIFICATE OF ANALYSIS

NAME: L-Cystine

QUANTITY: 300KGS

BATCH NO: 23072601

MFG DATE: JULY, 26, 2023

STANDARD: USP39

EXP DATE: JULY, 25, 2026

Item	Limit	Result
Appearance	White crystalline powder or crystals	Conform
Specific rotation $[α]_D^{20}$	-215°~-225°	-219.0°
State of solution	Clear and crystal≥98%	98.30%
Chloride(Cl)	≤0.08%	<0.05%
Ammonium	≤0.02%	<0.02%
Sulfate(SO <sub>4</sub> )	≤0.02%	<0.02%
Iron(Fe)	≤10ppm	<10ppm
Heavy metals(Pb)	≤10ppm	<10ppm
Arsenic	≤1.0ppm	<1.0ppm
Other amino acids	Chromatographically not detectable	Conform
Loss on drying	≤0.20%	0.08%
Residue on ignition	≤0.10%	0.06%
Assay	98.5~101.0%	99.6%
PH	5.0~6.5	5.8
Total platecount	≤1000CFU/G	Conform
Molds & yeasts	≤100CFU/G	Conform
Salmonella	Negative	Conform
E.COLI	Negative	Conform
Staphylococci	Negative	Conform

**Conclusion:** This product via inspection accords with USP39 standards

Analysis date: 2023-07-26      Analyst :Liu Chunmei

Verifier : Yu Daobing

