

BaseBulk

CERTIFICATE OF ANALYSIS

Product name	L-Carnitine USP
Batch / Lot number	100100120240417
Country of Origin	China
Date of Manufacture	Mar.30,2024
Date of Re-Test	Mar.29,2027
Manufacturer	Kaiyuan Hengtai Nutrition Co., Ltd.

Physical & Chemical Characteristics

Analysis Item	Specification	Result
Appearance (Organoleptic)	White crystals or crystalline powder	White crystalline powder
Identification (IR)	IR	Positive
Appearance of Solution (Ph.Eur.)	Clear and Colourless	Clear and Colourless
Specific Rotation	-29.0° to -32.0°	-31.08°
pH (USP)	5.5–9.5	6.72
Water (USP)	≤4.0%	0.30%
Loss on Drying (USP)	≤0.5%	0.30%
Assay (USP)	97.0%–103.0%	99.47%
Residue on Ignition (USP)	≤0.1%	0.04%
D-Carnitine (HPLC)	≤0.2%	0.07%

Residual Solvents

Analysis Item	Specification	Result
Residual Solvents: Acetone (USP)	≤1000 ppm	Conforms
Residual Solvents: Ethanol (USP)	≤5000 ppm	Conforms

Heavy Metals

Analysis Item	Specification	Result
Heavy Metals (USP)	≤10 ppm	<10 ppm
Arsenic (USP)	≤1 ppm	<0.1 ppm
Chloride (USP)	≤0.4%	<0.4%
Potassium (USP)	≤0.2%	<0.2%
Sodium (USP)	≤0.1%	<0.1%

Cyanide (Ch.P.)	Absent	Absent
Lead (USP)	≤3 ppm	<3 ppm
Mercury (USP)	≤0.1 ppm	<0.1 ppm
Cadmium (USP)	≤1 ppm	<1 ppm

Microbiological Tests

Analysis Item	Specification	Result
Total Plate Count (USP)	≤1000 CFU/10 g	20 CFU/10 g
Yeast & Mold (USP)	≤100 CFU/10 g	10 CFU/10 g
E. coli (USP)	Negative/10 g	Negative/10 g
Salmonella (USP)	Negative/10 g	Negative/10 g
Staphylococcus aureus (USP)	Negative/10 g	Negative/10 g