

## CERTIFICATE OF ANALYSIS

Name: **L-Citrulline DL-Malate 2:1**

Quantity: **1000kg**

Batch No.: **230325**

Production Date: **25<sup>th</sup> March, 2023**

Analysis Date: **28<sup>th</sup> March, 2023**

Re-Test Date: **24<sup>th</sup> March, 2026**

Country of Origin: **China**

Item	Specification	Results	Test Method
Description	White crystalline powder	White crystalline powder	Organoleptic
Identification	In accordance with standard retention time	Conforms	HPLC
Optical Rotation	+16.5° - +19.0°	+17.52°	ChP2020
Solubility	Clear	Clear	ChP2020
Loss on drying	NMT 0.3%	0.17%	ChP2020
Residue on ignition	NMT 0.1%	0.07%	ChP2020
Chloride	NMT 0.05%	LT 0.05%	ChP2020
Sulfate	NMT 0.02%	LT 0.01%	ChP2020
Ammonium	NMT 0.02%	LT 0.02%	ChP2020
Heavy Metals	NMT 15ppm	LT 15ppm	ChP2020
Lead	NMT 0.1ppm	LT 0.1ppm	GB 5009.12-2017 I
Total mercury	NMT 0.1ppm	LT 0.1ppm	GB 5009.12-2014 I
Cadmium	NMT 1ppm	LT 1ppm	GB 5009.15-2014
Arsenic	NMT 1ppm	LT 1ppm	ChP2020
Iron	NMT 10ppm	LT 10ppm	ChP2020
Assay	NLT 98.5%	99.59%	HPLC
L-Citrulline	62.5% - 74.2%	65.93%	HPLC
DL-Malate	25.8% - 37.5%	34.98%	HPLC
Total plate count	NMT 1000 cfu/g	LT 1000 cfu/g	ChP2020
Yeast and Mould	NMT 100 cfu/g	LT 100 cfu/g	ChP2020
Coliforms	NMT 100 cfu/g	LT 100 cfu/g	ChP2020

E.coli	Absence/g	Conforms	ChP2020
Salmonella	Absence/g	Conforms	ChP2020
Staph. Aureus	Absence/g	Conforms	ChP2020

Conclusion: Conforms to enterprise standard.