

# BaseBulk

## CERTIFICATE OF ANALYSIS

<b>Product Name</b>	L-Arginine alpha-ketoglutarate (2:1)
<b>Batch Number</b>	20221109
<b>Manufacture Date</b>	2022-11-09
<b>Expiry Date</b>	2026-11-08

### Physical & Chemical Characteristics

<b>Analysis Item</b>	<b>Specification</b>	<b>Result</b>
Appearance	White to yellow crystalline powder	Qualified
Identification	HPLC	Qualified
Assay	98.0–102.0%	98.82%
L-Arginine	65.5–69.0%	67.38%
Alpha-ketoglutarate	26.5–29.0%	27.44%
Specific Rotation $[\alpha]^{2D}$	+16.5 to +18.5	+18.1
pH	5.5–7.0	6.0
Hydrate	≤6.8%	4.0%
Chloride	≤0.05%	0.03%
Loss on Drying	≤1.0%	0.23%
Residue on Ignition	≤0.2%	0.10%
Bulk Density	≥0.5 g/ml	0.53 g/ml
Particle Size	Through 30 mesh	Qualified

### Heavy Metals

<b>Analysis Item</b>	<b>Specification</b>	<b>Result</b>
Heavy Metals (Pb)	≤10 ppm	<10 ppm
Arsenic ( $As_2O_3$ )	≤1 ppm	<1 ppm
Lead (Pb)	≤1 ppm	<1 ppm
Cadmium (Cd)	≤1 ppm	<1 ppm
Mercury (Hg)	≤1 ppm	<1 ppm
Iron	≤10 ppm	<10 ppm

### Microbiological

<b>Analysis Item</b>	<b>Specification</b>	<b>Result</b>
Total Plate Count	≤1000 cfu/g	<1000 cfu/g
Yeasts and Molds	≤100 cfu/g	<100 cfu/g

Escherichia Coli	Negative	Negative
Salmonella	Negative	Negative
Staphylococcus aureus	Negative	Negative

**Other**

<b>Analysis Item</b>	<b>Specification</b>	<b>Result</b>
Melamine and derivatives	Free	Free

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