



Certificate of Analysis

Sodium Copper Chlorophyllin

Batch No.	YL-200812	Manufacturing Date	08/12/2020
Batch Quantity	1000KG	Expiration Date	08/11/2023
Appearance	Dark green powder	Country of Origin	China
Sterilization Method	Heat NON-IRR	CAS No.	28302-36-5

ITEMS	SPECIFICATION	RESULT	METHOD
Sodium Copper Chlorophyllin (As is)	97% – 103%	102%	USP <851>
Ratio(A405/A630)	3.0-3.9	3.55	USP <851>
Total Copper (As is)	4.0% – 7.0%	5.00%	USP <851>
Sodium (As is)	5% – 10%	5.70%	USP <851>

PHYSICAL CHARACTERISTICS

Particle Size	≥ 95% through 60 mesh	Conform	Analytical sieving USP <786>
Loss on Drying	≤ 7%	3.55%	USP <731>
Residue on Ignition	≤ 30%	24.10%	USP <281>
Absorptance	≥ 568	579.40	USP <851>
pH	9.5 – 10.7	10.55	USP <791>

CHEMICAL CHARACTERISTICS

Pesticide Residue	Meet the requirements	Conform	GC USP <561>
Heavy Metals(as Pb)	NMT 10µg/g	Conform	USP <231> Method II
Arsenic (As)	NMT 2.0µg/g	0.300µg/g	ICP-MS
Lead (Pb)	NMT 1.0µg/g	0.250µg/g	ICP-MS
Cadmium(Cd)	NMT 0.5µg/g	<0.1µg/g	ICP-MS
Mercury(Hg)	NMT 0.5µg/g	<0.1µg/g	ICP-MS
Chromium(Cr)	NMT 20µg/g	Conform	ICP-MS
Free Copper	NMT 0.25%	0.020%	ICP-MS

MICROBIOLOGICAL CHARACTERISTICS

Total Plate Count	NMT10,000cfu/g	1000cfu/g	USP<61>
Total Yeast & Mold	NMT2,000cfu/g	80cfu/g	USP<61>
E.Coli	Not Detected in(g) 10	Not Detected	USP<61>
Salmonella	Not Detected in(g) 25	Not Detected	USP<61>
Staphylococcus	Not Detected in(g) 10	Not Detected	USP<61>

Packing and Storage

Polyethylene bag with cardboard drum. 25kg net.
Store in tight, light-resistant containers, avoid exposure to direct sunlight, moisture and excessive heat.

Tested by: *Tracy Cui*

Date: 08/18/2020

Approved by: *Jack Joa*

Date: 08/18/2020