

## CERTIFICATE OF ANALYSIS

Product Name	Nattokinase	Quantity	400kg
Botanical Latin Name	<i>Bacillus subtilis natto</i>	Manufacture Date	Oct. 03, 2022
Plant Part	Seeds	Expire Date	Oct. 02, 2024
Batch Number	221003	Issue Date	Oct. 11, 2022
Excipient	None	Country of Origin	China

Item	Specification	Result	Test Methods
Assay	NLT 20000 fu/g Nattokinase	Conforms	Note 1
	Vitamin K2 NMT 10ppm	Conforms	HPLC
Sterilization Method	High Temperature & Pressure	Conforms	/
<b>• Chemical Physical Control</b>			
Particle size	100% pass 80 mesh	80 mesh	80 mesh screen
Loss on drying	≤8.0%	4.4%	Infrared moisture determination
Ash content	≤5.0%	3.3%	
Bulk Density	40-60g/100ml	52.3g/100ml	USP<616>
Appearance	Fine Powder	Conforms	Visual
Color	Off-white to beige-white	Conforms	Visual
Odor	Typical	Typical	Organoleptic
Taste	Typical	Typical	Organoleptic
Heavy Metals	≤10ppm	<10ppm	USEPA 3051
Arsenic (As)	≤2ppm	0.03ppm	ICP-MS
Lead (Pb)	≤2ppm	0.02ppm	ICP-MS
Pesticides Residue	Meet USP Requirements	Conforms	USP34 <561>
<b>• Microbiology Control</b>			
Total Plate Count	≤3,000cfu/g	< 10 cfu/g	AOAC 990.12
Total Yeast & Mold	≤100cfu/g	< 10 cfu/g	AOAC 997.02
Escherchia Coli	Negative	Conforms	AOAC-OMA 991.14
Salmonella Species	Negative	Conforms	AOAC-RI 061301
Staphylococcus aureus	Negative	Conforms	AOAC-OMA 2003.07
<b>• General Status</b>			
GMO Free	GMO Free	Conforms	/
Non-Irradiation	Non-Irradiation	Conforms	/
<b>• Packing &amp; Storage</b>	Packed in paper-drums and two plastic-bags inside.N.W.:25kgs Store in a well-closed container. Away from moisture.		
<b>• Shelf Life</b>	Three years if sealed and stored away from direct sun light and heat.		
Analyst : Yang, Yan	QC Supervisor: Ren, Xiao		

Note 1: The test assays (FU/g) were referred to:

Kim, W., K. Choi, Y. Kim, H. Park, J. Choi, Y. Lee, H. Oh, I. Kwon, and S. Lee. 1996. Purification and Characterization of a Fibrinolytic Enzyme Produced from *Bacillus* sp. Strain CK 11 4 Screened from Chungkook Jang. *Appl. Environ. Microbiol.* 62:2482-2488

