

## CERTIFICATE OF ANALYSIS

<b>Product Name</b>	Bromelain		
<b>Botanical Name</b>	<i>Ananas comosus (Linn.) Merr.</i>		
<b>CAS No.</b>	9001-00-7		
<b>Part of plant used</b>	Stem		
<b>Batch Number</b>	20221026	<b>Manufacture Date</b>	20221026
<b>Report Date</b>	20221026	<b>Expiry Date</b>	20241025

Item of Analysis	Specification	Results	Test Methods
Proteolytic activity (GDU/g)	≥2400	2452	By Titration
<b>Organoleptic</b>			
Appearance	Powder	Conforms	Organoleptic
Color	Purple powder	Conforms	Organoleptic
Odor	Characteristic	Conforms	CP2010
Taste	Characteristic	Conforms	CP2010
<b>Physical Characteristics</b>			
Particle Size	100% pass 80 mesh	80MESH	CP2010
Loss on drying	5%NMT (%)	2.38%	USP<731>
Total ash	5%NMT (%)	3.03%	USP<561>
Bulk Density	45-60g/100mL	49g/100mL	CP2010IA
Opt.pH	4.5 to 6.0	Conforms	USP35<791>
<b>Heavy metals</b>			
Total Heavy Metals	10ppm Max	Conform	USP<231>method II
Lead (Pb)	2ppm NMT	Conform	ICP-MS
Arsenic (As)	2ppm NMT	Conform	ICP-MS
Cadmium (Cd)	2ppm NMT	Conform	ICP-MS
Mercury (Hg)	0.5ppm NMT	Conform	ICP-MS
<b>Microbiological Tests</b>			
Total Plate Count	3000cfu/g Max	Conform	USP<61>
Yeast & Mold	100cfu/g Max	Conform	USP<61>
E. Coli.	Negative	Conform	USP<61>
Salmonella	Negative	Conform	USP<61>
Staphylococcus	Negative	Conform	USP<61>

**Storage:** Store in tight, light-resistant containers, avoid exposure to direct sunlight, moisture and excessive heat.

**Shelf Life:** 24 months if store under the conditions above and stay in original packaging.

