

Certificate of Analysis

QUALITY CONTROL LABORATORY ANALYTICAL REPORT

Date: Dec. 27, 2023 Product: Bromelain 1200 GDU Powder
 Botanical Source: Ananas Comosus Lot No.: R2312035 Manufacture Date: Dec. 20, 2023

Active Ingredients	*Base on Input	per unit	Result
Bromelain 1200 GDU Powder		NLT 1200GDU/gm	1350 GDU/gm

Chemical /Physical Analysis

ITEM	SPECIFICATION	RESULT	METHODS
Appearance	Cream color powder	Complies	Visual
Loss on Drying	NMT 8.00%	4.02%	USP <731>
Solubility in Water	Almost soluble	Complies	USP
Heavy Metals	NMT 10 ppm	Complies	USP <231>
Lead (Pb)	NMT 5 ppm	Complies	ICP-MS
Arsenic (As)	NMT 2 ppm	Complies	ICP-MS
Cadmium (Cd)	NMT 1 ppm	Complies	ICP-MS
Mercury (Hg)	NMT 1 ppm	Complies	ICP-MS

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHODS
Total Aerobic Count	< 1000 cfu/g	5 cfu/g	USP <2021>
Total Combined Mold and Yeasts Count	< 100 cfu/g	< 10 cfu/g	USP <2021>
E. coli	Negative	Negative	USP <2022>
Salmonella spp.	Negative	Negative	USP <2022>
Staphylococcus aureus	Negative	Negative	USP <2022>
Pseudomonas aeruginosa	Negative	Negative	USP <62>



Quality Control

12/27/2023

Date

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QUALITY CONTROL LABORATORY ANALYTICAL REPORT

Date: Feb 19, 2023 Product: Bromelain 1200 GDU Powder
 Botanical Source: Ananas Comosus Lot No.: R2302008 Manufacture Date: Feb. 08, 2023

Active Ingredients	*Base on Input	per unit	Result
Bromelain 1200 GDU Powder		NLT 1200GDU/gm	1350 GDU/gm

Chemical /Physical Analysis

ITEM	SPECIFICATION	RESULT	METHODS
Appearance	Cream color powder	Complies	Visual
Loss on Drying	NMT 8.00%	2.8%	USP <731>
Solubility in Water	Almost soluble	Complies	USP
Heavy Metals	NMT 10 ppm	Complies	USP <231>
Lead (Pb)	NMT 5 ppm	Complies	ICP-MS
Arsenic (As)	NMT 2 ppm	Complies	ICP-MS
Cadmium (Cd)	NMT 1 ppm	Complies	ICP-MS
Mercury (Hg)	NMT 1 ppm	Complies	ICP-MS

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHODS
Total Aerobic Count	< 1000 cfu/g	5 cfu/g	USP <2021>
Total Combined Mold and Yeasts Count	< 100 cfu/g	< 10 cfu/g	USP <2021>
E. coli	Negative	Negative	USP <2022>
Salmonella spp.	Negative	Negative	USP <2022>
Staphylococcus aureus	Negative	Negative	USP <2022>
Pseudomonas aeruginosa	Negative	Negative	USP <62>



Quality Control

02/19/2023

Date

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QUALITY CONTROL LABORATORY ANALYTICAL REPORT

Date: Oct 19, 2022 Product: Bromelain 1200 GDU Powder
 Botanical Source: Ananas Comosus Lot No.: R2209049 Manufacture Date: Sep. 28, 2022

Active Ingredients	*Base on Input	per unit	Result
Bromelain 1200 GDU Powder		NLT 1200GDU/gm	*

Chemical /Physical Analysis

ITEM	SPECIFICATION	RESULT	METHODS
Appearance	Cream color powder	Complies	Visual
Loss on Drying	NMT 8.00%	4.1%	USP <731>
Solubility in Water	Almost soluble	Complies	USP
Heavy Metals	NMT 10 ppm	Complies	USP <231>
Lead (Pb)	NMT 5 ppm	Complies	ICP-MS
Arsenic (As)	NMT 2 ppm	Complies	ICP-MS
Cadmium (Cd)	NMT 1 ppm	Complies	ICP-MS
Mercury (Hg)	NMT 1 ppm	Complies	ICP-MS

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHODS
Total Aerobic Count	< 1000 cfu/g	5 cfu/g	USP <2021>
Total Combined Mold and Yeasts Count	< 100 cfu/g	< 10 cfu/g	USP <2021>
E. coli	Negative	Negative	USP <2022>
Salmonella spp.	Negative	Negative	USP <2022>
Staphylococcus aureus	Negative	Negative	USP <2022>
Pseudomonas aeruginosa	Negative	Negative	USP <62>



Quality Control

10/19/2022

Date

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QUALITY CONTROL LABORATORY ANALYTICAL REPORT

Date: April 13, 2020 Product: Bromelain 1200 GDU Powder
 Botanical Source: Ananas Comosus Lot No.: R1912081 Manufacture Date: January 08, 2020

Active Ingredients	*Base on Input	per unit	Result
Bromelain 1200 GDU Powder		NLT 1200GDU/gm	*

Chemical /Physical Analysis

ITEM	SPECIFICATION	RESULT	METHODS
Appearance	Cream color powder	Complies	Visual
Loss on Drying	NMT 8.00%	7.41%	USP <731>
Solubility in Water	Almost soluble	Complies	USP
Heavy Metals	NMT 10 ppm	Complies	USP <231>
Lead (Pb)	NMT 5 ppm	Complies	ICP-MS
Arsenic (As)	NMT 2 ppm	Complies	ICP-MS
Cadmium (Cd)	NMT 1 ppm	Complies	ICP-MS
Mercury (Hg)	NMT 1 ppm	Complies	ICP-MS

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHODS
Total Aerobic Count	< 1000 cfu/g	5 cfu/g	USP <2021>
Total Combined Mold and Yeasts Count	< 100 cfu/g	< 10 cfu/g	USP <2021>
E. coli	Negative	Negative	USP <2022>
Salmonella spp.	Negative	Negative	USP <2022>
Staphylococcus aureus	Negative	Negative	USP <2022>
Pseudomonas aeruginosa	Negative	Negative	USP <62>



Quality Control

04/13/2020

Date

Certificate of Analysis

QUALITY CONTROL LABORATORY ANALYTICAL REPORT

Date: December 04, 2019

Product: Bromelain 1200 GDU Powder

Product Code: 600108

Lot No.: R1911020

Manufacture: November 08, 2019

Active Ingredients	* Base on Input	Per Unit	RESULT
Bromelain 1200 GDU Powder		90%	*

Excipients: Maltodextrin

Chemical/Physical Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Appearance	Off white to light yellow powder	Conforms	Visual
Heavy Metals	< 10 ppm	Conforms	USP
Lead (Pb)	< 2 ppm	Conforms	ICP-MS
Arsenic (As)	< 1 ppm	Conforms	ICP-MS
Cadmium (Cd)	< 1 ppm	Conforms	ICP-MS
Mercury (Hg)	< 1 ppm	Conforms	ICP-MS

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Total Aerobic Count	< 5000 cfu/g	Conforms	AOAC
Total Combined Molds and Yeasts Count	< 300 cfu/g	Conforms	AOAC
<i>E. Coli</i>	Negative	Conforms	AOAC
<i>Salmonella spp</i>	Negative	Negative	AOAC
<i>Staphylococcus aureus</i>	Negative	Negative	AOAC
<i>Pseudomonas aeruginosa</i>	Negative	Negative	AOAC

Nutritional values **

	per unit
Energy	4.0 kcal
Carbohydrate	500.0 mg
Protein	500.0 mg
Fat (Oil)	0.0 mg
Sodium	0.0 mg

** Estimated from Nutritional Value Database



Quality Control Department

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QUALITY CONTROL LABORATORY ANALYTICAL REPORT

 Date: July 26, 2019

 Product: Bromelain 1200 GDU Powder

 Product Code: 600108

 Lot No.: R1907071

 Manufacture: July 19, 2019

Active Ingredients	* Base on Input	Per Unit	RESULT
Bromelain 1200 GDU Powder		90%	*

Excipients: Maltodextrin

Chemical/Physical Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Appearance	Off white to light yellow powder	Conforms	Visual
Heavy Metals	< 10 ppm	Conforms	USP
Lead (Pb)	< 2 ppm	Conforms	ICP-MS
Arsenic (As)	< 1 ppm	Conforms	ICP-MS
Cadmium (Cd)	< 1 ppm	Conforms	ICP-MS
Mercury (Hg)	< 1 ppm	Conforms	ICP-MS

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Total Aerobic Count	< 5000 cfu/g	Conforms	AOAC
Total Combined Molds and Yeasts Count	< 300 cfu/g	Conforms	AOAC
<i>E. Coli</i>	Negative	Conforms	AOAC
<i>Salmonella spp</i>	Negative	Negative	AOAC
<i>Staphylococcus aureus</i>	Negative	Negative	AOAC
<i>Pseudomonas aeruginosa</i>	Negative	Negative	AOAC

Nutritional values **

	per unit
Energy	4.0 kcal
Carbohydrate	500.0 mg
Protein	500.0 mg
Fat (Oil)	0.0 mg
Sodium	0.0 mg

** Estimated from Nutritional Value Database



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QUALITY CONTROL LABORATORY ANALYTICAL REPORT

 Date: Mar 25, 2019

 Product: Bromelain 1200 GDU Powder

 Product Code: 600108

 Lot No.: R1903049

 Manufacture: Mar 18, 2019
Active Ingredients
** Base on Input*
Per Unit
RESULT

Bromelain 1200 GDU Powder	90%	*
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Excipients: Maltodextrin

Chemical/Physical Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Appearance	Off white to light yellow powder	Conforms	Visual
Heavy Metals	< 10 ppm	Conforms	USP
Lead (Pb)	< 2 ppm	Conforms	ICP-MS
Arsenic (As)	< 1 ppm	Conforms	ICP-MS
Cadmium (Cd)	< 1 ppm	Conforms	ICP-MS
Mercury (Hg)	< 1 ppm	Conforms	ICP-MS

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Total Aerobic Count	< 5000 cfu/g	Conforms	AOAC
Total Combined Molds and Yeasts Count	< 300 cfu/g	Conforms	AOAC
<i>E. Coli</i>	Negative	Conforms	AOAC
<i>Salmonella spp</i>	Negative	Negative	AOAC
<i>Staphylococcus aureus</i>	Negative	Negative	AOAC
<i>Pseudomonas aeruginosa</i>	Negative	Negative	AOAC

Nutritional values **

per unit

Energy	4.0 kcal
Carbohydrate	500.0 mg
Protein	500.0 mg
Fat (Oil)	0.0 mg
Sodium	0.0 mg

** Estimated from Nutritional Value Database



Quality Control Department

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QUALITY CONTROL LABORATORY ANALYTICAL REPORT

Date: March 06, 2019

Product: Bromelain 1200 GDU Powder

Product Code: 600108

Lot No.: R1902029

Manufacture: February 25, 2019

Active Ingredients	* Base on Input	Per Unit	RESULT
Bromelain 1200 GDU Powder		90%	*

Excipients: Maltodextrin

Chemical/Physical Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Appearance	Off white to light yellow powder	Conforms	Visual
Heavy Metals	< 10 ppm	Conforms	USP
Lead (Pb)	< 2 ppm	Conforms	ICP-MS
Arsenic (As)	< 1 ppm	Conforms	ICP-MS
Cadmium (Cd)	< 1 ppm	Conforms	ICP-MS
Mercury (Hg)	< 1 ppm	Conforms	ICP-MS

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Total Aerobic Count	< 5000 cfu/g	Conforms	AOAC
Total Combined Molds and Yeasts Count	< 300 cfu/g	Conforms	AOAC
<i>E. Coli</i>	Negative	Conforms	AOAC
<i>Salmonella spp</i>	Negative	Negative	AOAC
<i>Staphylococcus aureus</i>	Negative	Negative	AOAC
<i>Pseudomonas aeruginosa</i>	Negative	Negative	AOAC

Nutritional values **

	per unit
Energy	4.0 kcal
Carbohydrate	500.0 mg
Protein	500.0 mg
Fat (Oil)	0.0 mg
Sodium	0.0 mg

** Estimated from Nutritional Value Database


 Quality Control Department

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QUALITY CONTROL LABORATORY ANALYTICAL REPORT

 Date: Aug. 14, 2018

 Product: Bromelain 1200 GDU Powder

 Product Code: 600108

 Lot No.: R1807092

 Manufacture: Aug. 02, 2018

Active Ingredients	* Base on Input	Per Unit	RESULT
Bromelain 1200 GDU Powder		90%	*

Excipients: Maltodextrin

Chemical/Physical Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Appearance	Off white to light yellow powder	Conforms	Visual
Identification	Positive	Confirms	TLC
Odor & Taste	Characteristic	Conforms	Organoleptic
Assay	>1200 GDU/g	Conforms	USP
Heavy Metal	≤ 10ppm	Conforms	ICP
Lead (Pb)	≤ 2ppm		
Arsenic (As)	≤ 1ppm		
Cadmium (Cd)	≤ 1ppm		
Mercury (Hg)	≤ 1ppm		

Microbiological Analysis

ITEM	SPECIFICATION	RESULT	METHOD
Total Aerobic Count	< 10,000 cfu/g	Conforms	USP <2021>
Total Combined Molds and Yeasts Count	< 300 cfu/g	Conforms	USP <2021>
<i>E. coli</i>	Negative	Negative	USP <2022>
<i>Salmonella</i> spp	Negative	Negative	USP <2022>
<i>Staphylococcus aureus</i>	Negative	Negative	USP <2022>
<i>Pseudomonas aeruginosa</i>	Negative	Negative	USP <62>



Quality Control Department