



GREEN HEALTH

Ningbo Green-Health Pharmaceutical Co., Ltd.

CERTIFICATE OF ANALYSIS

ORIGINAL COA IS VALID

Resource Number: 952450

Certificate No:10911150701

Sample Name	Glucosamine HCL 95% (PVP) Granulation		
Spec. No.	10911-952450	Package Specification	100kg/bag/drum
Quantity	2001.1KG		
Test Purpose	Quality Analysis		
Lot No.	NGH-20150701		
Code	10911		
Production Date	2015 Y 07 M 02 D		
Sampling Date	2015 Y 07 M 03 D		
Report Date	2015 Y 07 M 09 D		
Manufacturer	Ningbo Green-Health Pharmaceutical Co.,Ltd.		
Storage	Keep container tightly closed and store at room temperature away from light, heat and humidity.		
Shelf life	2 years.		
Expiry Date	2017 Y 07 M 01D		

Test Items	Test Standards	Test Result(s)	Test Methods
Characters			
Description	White to off-white granules	Off-white granular	Perception
Appearance	Matches STD. # 952450	Conformed	Perception
Identification			
Infrared Absorption	Have to comply	Conformed	USP<197K>
Chloride	Have to comply	Conformed	USP<191>
Glucosamine HCl(HPLC)	Have to comply	Conformed	PV method
Test			
Particle Size	NLT 95.0%through #20 USSS (850µm)	100%	USP<786>
	NMT40% through #100 USSS (150µm)	14%	
Bulk Density	0.450-0.650g/ml	0.549g/ml	USP<616>
Tapped Density	0.500-0.850 g/ml	0.672g/ml	USP<616>
Loss On Drying	NMT2%	0.5%	USP<731>
		Lead	NMT 0.15ppm
Arsenic	NMT 1ppm	<1ppm	Ch.P.—AA
Cadmium	NMT 0.5ppm	<0.5ppm	Ch.P.—AA
Mercury	NMT 1.5ppm	<1.5ppm	Ch.P.—AA
Microbial Limits			
Total Microbial Count	NMT3000cfu/g	<10cfu/g	USP<2021>
Total Combined Molds And Yeasts Count	NMT300cfu/g	<10cfu/g	USP<2021>
Salmonella	Absent/10g	Absent/10g	USP<2022>
Escherichia Coli	Absent/10g	Absent/10g	USP<2022>
Staphylococcus.Aureus	Absent/10g	Absent/10g	USP<2022>
Assay			
Glucosamine HCl	NLT91.0%	93.1%	PV method
Result(s): Results complied with specification 10911-952450.			
Analyst: <i>Zhang</i>	Recheck: <i>[Signature]</i>		
In Charge: <i>朱明</i>	Issue Date: 2015年7月9日		

Address: Fenghua Xiwu Town Foreign Technological Garden ,Ningbo,Zhejiang China
 TEL: 0086-574-88535566 FAX: 0086-574-88535588
 Postcode: 315505 E-mail: greenhealth@163.net Website: www.greenhealth.net.cn



GREEN HEALTH

CERTIFICATE OF ANALYSIS

ORIGINAL COA IS VALID

Ningbo Green-Health Pharmaceutical Co., Ltd.

Resource Number: 952450

Certificate No:10911150702

Sample Name	Glucosamine HCL 95% (PVP) Granulation		
Spec. No.	10911-952450	Package Specification	100kg/bag/drum
Quantity	1000.9KG		
Test Purpose	Quality Analysis		
Lot No.	NGH-20150702		
Code	10911		
Production Date	2015 Y 07 M 02 D		
Sampling Date	2015 Y 07 M 04 D		
Report Date	2015 Y 07 M 09 D		
Manufacturer	Ningbo Green-Health Pharmaceutical Co., Ltd.		
Storage	Keep container tightly closed and store at room temperature away from light, heat and humidity.		
Shelf life	2 years.		
Expiry Date	2017 Y 07 M 01D		

Test Items	Test Standards	Test Result(s)	Test Methods
Characters			
Description	White to off-white granules	Off-white granular	Perception
Appearance	Matches STD. # 952450	Conformed	Perception
Identification			
Infrared Absorption	Have to comply	Conformed	USP<197K>
Chloride	Have to comply	Conformed	USP<191>
Glucosamine HCl(HPLC)	Have to comply	Conformed	PV method
Test			
Particle Size	NLT 95.0%through #20 USSS (850µm) NMT40% through #100 USSS (150µm)	100% 24%	USP<786>
Bulk Density	0.450-0.650g/ml	0.518g/ml	USP<616>
Tapped Density	0.500-0.850 g/ml	0.633g/ml	USP<616>
Loss On Drying	NMT2%	1%	USP<731>
Lead	NMT 0.15ppm	<0.15ppm	Ch.P.—AA
Arsenic	NMT 1ppm	<1ppm	Ch.P.—AA
Cadmium	NMT 0.5ppm	<0.5ppm	Ch.P.—AA
Mercury	NMT 1.5ppm	<1.5ppm	Ch.P.—AA
Microbial Limits			
Total Microbial Count	NMT3000cfu/g	<10cfu/g	USP<2021>
Total Combined Molds And Yeasts Count	NMT300cfu/g	<10cfu/g	USP<2021>
Salmonella	Absent/10g	Absent/10g	USP<2022>
Escherichia Coli	Absent/10g	Absent/10g	USP<2022>
Staphylococcus.Aureus	Absent/10g	Absent/10g	USP<2022>
Assay			
Glucosamine HCl	NLT91.0%	92.9%	PV method

Result(s): Results complied with specification 10911-952450.

Analyst:

Recheck:

In Charge:

Issue Date: 2015年7月9日

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