


Description: Glucosamine HCl Powder	Lot #: 513Y1607043
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	<u>Standard</u>	<u>Result</u> *
<u>Physical Properties</u>		
Appearance	White free flowing powder	Complies
Bulk Density Loose (gm/cc)	>= 0.60 <= 0.90	0.66
Particle size thru # 20 (%)	>= 95	Complies
<u>Analytical</u>		
Assay (Glucosamine HCl, Dry Basis, %)	>= 98.0 <= 102.0	99.8
Identification A	Meets the requirements	Complies
Identification B	Meets the requirements	Complies
Identification C	Meets the requirements	Complies
Loss on drying (%)	<= 1.0	0.1
pH	>= 3.0 <= 5.0	4.5
Specific rotation (deg)	>= +70.0 <= +73.0	+71.8
ROI (%)	<= 0.1	0.1
Sulfate (%)	<= 0.24	Complies
Lead (ppm)	<= 0.5	<0.5
Arsenic (ppm)	<= 1.5	<0.5
Cadmium (ppm)	<= 0.5	<0.5
Mercury (ppm)	<= 0.2	<0.1
<u>Microbiological</u>		
APC (CFU/gm)	<= 1000	Complies
Yeast/mold (CFU/gm)	<= 100	Complies
E. coli (CFU/gm)	Negative	Complies
Salmonella (25 gm)	Negative	Complies
<u>Storage Conditions</u>		
Manufacture date		July 09, 2016
Expiration date		July 09, 2019
Storage		Cool dry place sealed in light resistant container
Manufactured by		Plant # 513
Country of origin		China
Revision #		Rev 7 7/25/2016

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Approved By: 
Warren K. Majerus
VP Quality Assurance

Date: 1/30/2017

* Test results based on information supplied by the manufacturer, unless otherwise noted.

** Based on third party testing lab results.

*** Based on results from Pharmore's sampling protocol.

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