

## Certificate of Analysis

<b>Product Name:</b>	Glucosamine Sulfate Potassium Chloride (2KCL) USP34		
<b>Batch Number:</b>	20130826	<b>Quantity:</b>	1000kgs
<b>Report Date:</b>	26 Aug., 2013	<b>Test Standard:</b>	USP34

ITEMS	SPECIFICATIONS	RESULTS	USP METHOD
Appearance	White Crystalline Powder	White Crystalline Powder	Usp34
Identification	A: Infrared Absorption B: meets the requirements of the tests for Chloride/Sulfate/Potassium	Pass	Usp34<197k > Usp34<191k
Assay (HPLC)	98---102%	99.86%	Usp34
Specific Rotation (5%,25°C)	+50--- +52°	+51,40°	Usp33<781S>
Loss on Drying	≤1.0%	0.11%	Usp34<731>
Residue on Ignition	27%-- -29%	28.00%	Usp34<281>
PH	3.0----5.0	4.10	Usp34<791>
Heavy Metals	≤20ppm	Pass	Usp34<231>
Sulfate	15.5---16.5%	16.30%	Usp34
Arsenic	≤3ppm	Pass	Usp34
Cadmium	<1ppm	Pass	Usp34
Chromium (VI)	<5ppm	Pass	Usp34
Lead	<5ppm	Pass	Usp34
Total mercury	<5ppm	Pass	Usp34
Aflatoxins	<20ppb	Pass	Usp34
Solvent residues and other impurities	As set by ICH limits	Pass	Usp34
Sodium	A solution (1 in 10), tested on a platinum wire, does not impart a pronounced yellow color to a non-luminous flame	Pass	Usp34
Particle Size		Pass	Usp34
Total Plate Count		Pass	Usp34<2001>
Yeast		Pass	Usp34<2001>
Mold		Pass	Usp34<2001>
Total Coliforms		Pass	Usp34<2001>
Salmonella	Negative	Negative	Usp34<2001>
E. Coli	Negative	Negative	Usp34<2001>
Pseudomonas and Staphylococcus	Negative	Negative	Usp34<2001>
Manufacturing Date/ Expiry Date	26 Aug., 2013 / 25 Aug., 2015		

<b>Conclusion:</b>	Conforms to USP34 Requirements
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