



GREENSPRING

Xi'an Green Spring Technology Co.,Ltd.

Floor 14 Suite B, HuiXin IBC, No.1 Zhang Ba 1 Road, Hi-tech Development Zone, Xi'an. China.

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CERTIFICATE OF ANALYSIS

Product Name: Sodium Hyaluronate**Batch No.: GS220803****Grade. : Eye-drop Grade****Manufacture Date: Aug, 3rd, 2022****Analysis Date: Aug, 10th, 2022****Expiry Date: Aug, 2nd, 2024****Source: Fermentation**

Item	Specification	Result
Assay	95.0%%-105.0%% (on the dried substance)	99.9%
Physical&Chemical		
Appearance & Color	White or almost white powder or fibrous aggregate	White Powder
Identification		
A.Infrared absorption	The IR spectrum of the sample exhibits maxima atthesame wavelength as that of ph.Eur. reference spectrumof Sodium Hyaluronate	Comply
B.Reaction of sodium	Positive	Positive
Appearance of solution	Clearand the absorbance is NMT 0.01 at 600 nm	Clear, $A_{600nm}= 0.005$
Loss on drying	$\leq 20.0\%$	8.1%
pH	5.0-8.5 (0.5% solution)	6.6
Intrinsic viscosity	Report the test value	$1.72m^3 /kg$
Molecular weight	Report the test value	$1.00 \times 10^6 Da$
Nucleic acids	The absorbance is NMT 0.5 at 260 nm	0.014
Protein	$\leq 0.1\%$ (on the dried substance)	<LOD(0.05%)
Chlorides	50.5%	<0.5%
Heavy metals	≤ 10 ppm	<10 ppm
Iron	≤ 80 ppm (on the dried substance)	<80 ppm
Residual solvents :Ethanol	$\leq 0.5\%$	0.12%
Microbiological Control		
Total Colony Number (CFU/g)	≤ 100	<10
Fungi and Yeasts(CFU/g)	≤ 100	<10
Staphylococcus Aureus(CFU/g)	negative	negative
Bacterialendotoxin (EU/mg)	≤ 0.5	<0.5
Viable Hemolytic Streptococci	negative	negative
Pseudomonas	negative	negative



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Aeruginosas(CFU/g)

Conclusions

The product complies with Ph.Eur10.0 and customer standards

Storage

Cool & dry place, Do not freeze. Keep away from strong light and heat.

Shelf

2 year when properly stored

Approved by :

(Quality Assurance)

