

**CERTIFICATE OF ANALYSIS**

Product Name:	Sodium hyaluronate
Synonyms:	Hyaluronic Acid, Hyaluronic acid sodium salt
Description:	White or almost white powder
Grade:	Food Grade
Source:	Fermentation
Identification:	Passes all criteria tests
Batch No	210816
Batch quantity:	800kgs
Analysis Date:	Aug 19,2021
Country of Origin:	China

Item	Specification	Results
Infrared Absorption	The infrared absorption spectrum should be consistent with the control spectrum	Complies
Assay of Sodium Hyaluronate	$\geq 95\%$	96.30%
Average molecular weight	0.80-1.50MDa	1.05MDa
Glycuronic acid	$\geq 45\%$	46.8%
Loss on drying	$\leq 8.0\%$	6.80%
Residue on Ignition	$\leq 13.0\%$	11.8%
PH	5.0~8.5	6.49
Transparency(0.1% Solution)	$\geq 99.0\%$	100%
Intrinsic viscosity value	14.16-24.86	20.68
Bulk Density	$\geq 0.2\text{g/ml}$	0.55g/ml
Proteins	$\leq 0.10\%$	0.041%
Organic volatile impurities	Meet the requirements	Complies
Heavy Metals	$\leq 10\text{ppm}$	Complies
Arsenic (As)	$\leq 2\text{ppm}$	Complies
Cadmium (Cd)	$\leq 1\text{ppm}$	Complies
Mercury (Hg)	$\leq 0.1\text{ppm}$	Complies
Sulfate (SO ₄)	$\leq 300\text{ppm}$	Complies
Ammonium	$\leq 200\text{ppm}$	Complies
Iron(Fe)	$\leq 80\text{ppm}$	$< 80\text{ppm}$
Microbiological control		
Total plate count	$\leq 100\text{cfu/g}$	Complies
Yeast & mold	$\leq 50\text{cfu/g}$	Complies
E.coil	Negative	Negative
Salmonella	Negative	Negative

Storage Cool & dry place, Do not freeze. **Keep away from strong light and heat.**
Shelf 2 year when properly stored.

