

## CERTIFICATE OF ANALYSIS

|                    |                                                                    |                  |                |
|--------------------|--------------------------------------------------------------------|------------------|----------------|
| Product name:      | Sodium Hyaluronate                                                 |                  |                |
| CAS No:            | 9067-32-7                                                          | Spec.:           | Cosmetic Grade |
| Batch Number:      | NF-20220902                                                        | Manuf. Date:     | Sep. 02,2022   |
| Quantity:          | 200kg                                                              | Expiration Date: | Sep. 01,2024   |
| Storage Condition: | Store in an airtight container, protected from light and humidity. |                  |                |

| TEST ITEM                           | SPECIFICATION                                                                                    | RESULTS  |
|-------------------------------------|--------------------------------------------------------------------------------------------------|----------|
| <b>Physical &amp; Chemical Test</b> |                                                                                                  |          |
| Appearance                          | White or almost white powder or granule                                                          | Conforms |
| Solubility                          | Sparingly soluble or soluble in water, practically insoluble in acetone and in anhydrous ethanol | Conforms |
| Infrared absorption                 | Positive                                                                                         | Conforms |
| Reaction of sodium                  | Positive                                                                                         | Conforms |
| Absorbance                          | $A_{600nm} \leq 0.01$                                                                            | Conforms |
| Nucleic Acids                       | $A_{260nm} \leq 0.5$                                                                             | Conforms |
| Transparency                        | $\geq 99.0\%$                                                                                    | 99.6%    |
| pH                                  | 6.0-7.5                                                                                          | 6.5      |
| Intrinsic viscosity                 | Measured value                                                                                   | 0.22dL/g |
| Molecular weight                    | Measured value                                                                                   | 3744Da   |
| <b>Purity Test</b>                  |                                                                                                  |          |
| Loss on drying                      | $\leq 10\%$                                                                                      | 5.05%    |
| Residue on ignition                 | $\leq 20\%$                                                                                      | 18.96%   |
| Protein                             | $\leq 0.1\%$                                                                                     | 0.02%    |
| Iron                                | $\leq 80\text{ppm}$                                                                              | Conforms |
| Chloride                            | $\leq 0.5$                                                                                       | Conforms |
| <b>Microbiological Test</b>         |                                                                                                  |          |
| Total bacterial count               | $\leq 100\text{cfu/g}$                                                                           | Conforms |
| Yeast & Mold                        | $\leq 20\text{cfu/g}$                                                                            | Conforms |
| E.Coli.                             | Negative                                                                                         | Conforms |
| Staphylococcus aureus               | Negative                                                                                         | Conforms |
| Pseudomonas aeruginosa              | Negative                                                                                         | Conforms |
| Glucuronic acid                     | $\geq 45.9\%$                                                                                    | 46.2%    |
| Sodium Hyaluronate                  | $\geq 95.0\%$                                                                                    | 95.6%    |
| Conclusion:                         | Conform with In-house Standard.                                                                  |          |

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