

**Certificate of Analysis  
(Representative Sample Certificate)**

**Product Name:** Hyaluronic acid  
**INCI Name:** Sodium Hyaluronate  
**CAS Number:** 9067-32-7  
**Lot Number:** Not available (data may vary slightly with different lots or batches)  
**Expiration Date:** 24 months from production date

| Analytical Tests                     | Specifications                    | Results      |
|--------------------------------------|-----------------------------------|--------------|
| Appearance/Color/Odor                | White odorless crystalline powder | Corresponds  |
| Protein                              | 0.5 max at 280nm                  | 0.04         |
| Molecular Weight                     | 800,000-1,500,000                 | 1,320,000    |
| Assay (colorimetric carbazole assay) | 90.0% min on dry basis            | 99.5%        |
| Glucuronic Acid                      | 42-50%                            | 48.1%        |
| Loss on Drying                       | 10.0% max                         | 9.0%         |
| pH value                             | 5.0-7.5                           | 6.9          |
| Arsenic                              | 1.0ppm max                        | 0.06ppm      |
| Cadmium                              | 1.0ppm max                        | <0.01ppm     |
| Lead                                 | 0.5ppm max                        | 0.09ppm      |
| Mercury                              | 1.0ppm max                        | <0.01ppm     |
| Residue on Ignition                  | 20.0% max                         | 16.5%        |
| Mesh Size                            | 60-200 mesh                       | 100% thru 60 |
| Bulk Density                         | 0.10-0.40 g/ml                    | 0.24 g/ml    |
| Tap Density                          | 0.20-0.50 g/ml                    | 0.34 g/ml    |
| Total Plate Count                    | 1,000 cfu/g max                   | <10 cfu/g    |
| Staphylococcus Aureus                | Negative                          | Negative     |
| E. Coli                              | Negative                          | Negative     |
| Coliforms                            | <100 cfu/g                        | Pass         |
| Salmonella                           | Negative                          | Negative     |
| Yeast & Mold cfu/g                   | <100 cfu/g                        | <10 cfu/g    |

The above data were obtained using the test indicated and is subject to the deviation inherent in the test method. Results may vary under other test methods or conditions.

**Disclaimer:** This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. Such information is to be the best of the company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitability & completeness of such information for his own particular use.



This report is not to be signed.

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