

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-08-08 18:22:20  
Date of Next Testing: 2027-08-07 18:22:20  
Product Name: **Carboxymethyl cellulose**  
CAS Number: 9004-32-4  
Specifications & Purity: M.W. 90000(DS=0.7) ,50-100mPa.s  
Lot #: H2302278  
SKU #: **C104983**  
**Analysis:** **083437**  
Storage Temperature: Argon charged

| Parameter                 | Limit Values                          | Result                                |
|---------------------------|---------------------------------------|---------------------------------------|
| PH                        | 6.5-8                                 | 7.20                                  |
| NaCl                      | 0-0.25 (%)                            | 0.15 %                                |
| Pb measure                | 0-10 (ppm)                            | 5.00 ppm                              |
| Sodium glycolate          | 0-0.4 (%)                             | 0.20 %                                |
| Mercury(Hg)               | 0-1 (ppm)                             | 0.50 ppm                              |
| Loss on drying            | 0-10 (%)                              | 6.66 %                                |
| (As)Arsenic               | 0-3 (ppm)                             | 2.00 ppm                              |
| Viscosity(1% in H2O,25°C) | 50-100 (cP)                           | 69.60 cP                              |
| Heavy metal (as Pb)       | 0-20 (ppm)                            | 10.00 ppm                             |
| Cadmium(Cd)               | 0-1 (ppm)                             | 0.50 ppm                              |
| Degree of substitution    | 0.65-0.9                              | 0.80                                  |
| Assay (dry basis)         | 99.5-100 (%)                          | 99.50100 %                            |
| Appearance (C104983)      | white to light yellow granular powder | white to light yellow granular powder |
| Molecular Weight          | Conforms                              | Conforms                              |
| Infrared spectrum         | Conforms to Structure                 | Conforms to Structure                 |



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A handwritten signature in black ink that reads "John Su". The signature is written in a cursive, flowing style.

John Su  
QA & QC Manager