

## Certificate of Analysis

Date of Testing: 2024-06-27 11:50:48

Date of Next Testing: 2028-06-26 11:50:48

Product Name: **L-Rhamnose monohydrate**

CAS Number: 10030-85-0

Specifications & Purity:  $\geq 99\%$

Lot #: F2421485

SKU #: **R108982**

Version: **2**

Analysis #: **365180**

| Parameter                                                 | Limit Values                             | Result                                   |
|-----------------------------------------------------------|------------------------------------------|------------------------------------------|
| Heavy metal (as Pb)                                       | 0-5 (ppm)                                | 1.60 ppm                                 |
| Specific Rotation $[\alpha]_{20/D(c=4 \text{ in } H_2O)}$ | 7.5-8.5 (°)                              | 7.50°                                    |
| Water by Karl Fischer                                     | 9-11 (%)                                 | 9.47 %                                   |
| Calcium(Ca)                                               | 0-10 (ppm)                               | 1.34 ppm                                 |
| Ignition Residue (as sulfate)                             | 0-0.15 (%)                               | 0.10 %                                   |
| Purity(HPLC)                                              | 99-100 (%)                               | 99.78900 %                               |
| Melting point                                             | 91-96 (°C)                               | 95.99000 °C                              |
| Appearance (R108982)                                      | White or light yellow crystalline powder | White or light yellow crystalline powder |
| Proton NMR spectrum                                       | Conforms to structure                    | Conforms to Structure                    |



John Su  
QA & QC Manager