

## Certificate of Analysis

Date of Testing: 2024-03-22 15:41:44

Date of Next Testing: 2028-03-21 15:41:44

Product Name: **L-Rhamnose monohydrate**

CAS Number: 10030-85-0

Specifications & Purity: 99%

Lot #: C2414723

SKU #: **R108982**

Analysis: **324814**

| Parameter                                                       | Limit Values                             | Result                                   |
|-----------------------------------------------------------------|------------------------------------------|------------------------------------------|
| Purity(HPLC)                                                    | 99-100 (%)                               | 99.43000 %                               |
| Melting point                                                   | 91-96 (°C)                               | 91.10000 °C                              |
| Heavy metal (as Pb)                                             | 0-5 (ppm)                                | 5.00 ppm                                 |
| Specific Rotation $[\alpha]_{20/D(c=4 \text{ in H}_2\text{O})}$ | 7.5-8.5 (°)                              | 8.00 °                                   |
| Water by Karl Fischer                                           | 9-11 (%)                                 | 10.10 %                                  |
| Calcium(Ca)                                                     | 0-10 (ppm)                               | 5.00 ppm                                 |
| Ignition Residue (as sulfate)                                   | 0-0.15 (%)                               | 0.12 %                                   |
| Proton NMR spectrum                                             | Conforms to structure                    | Conforms to Structure                    |
| Appearance (R108982)                                            | White or light yellow crystalline powder | White or light yellow crystalline powder |



John Su  
QA & QC Manager