

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-07-23 17:22:19

Date of Next Testing: 2026-07-22 17:22:19

Product Name: **Manganese sulfate monohydrate**

CAS Number: 10034-96-5

Specifications & Purity: AR, ≥99%

Lot #: G2221137

SKU #: **M111707**

Version: **0**

Analysis #: **066198**

Storage Temperature: Room temperature

| Parameter                                  | Limit Values              | Result                    |
|--------------------------------------------|---------------------------|---------------------------|
| Magnesium(Mg)                              | 0-200 (ppm)               | 185.00000 ppm             |
| Iron(Fe)                                   | 0-20 (ppm)                | 18.60400 ppm              |
| Calcium(Ca)                                | 0-0.02 (%)                | 0.01880 %                 |
| loss on ignition(700°C)                    | 10-12 (%)                 | 11.35000 %                |
| Chloride (Cl-)                             | 0-100 (ppm)               | 99.25600 ppm              |
| Purity Titration by EDTA                   | 99-100 (%)                | 99.99010 %                |
| Zinc(Zn)                                   | 0-50 (ppm)                | 48.88000 ppm              |
| Appearance (M111707)                       | White to Pale Pink Powder | White to Pale Pink Powder |
| Potassium permanganate reducing substances | Pass                      | Pass                      |
| Solubility , 1g in 13ml of water           | Clear light pink solution | Clear light pink solution |
| X-Ray Diffraction                          | Conforms to Structure     | Conforms to Structure     |



John Su  
QA & QC Manager