

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

# Certificate of Analysis

Date of Testing: 2023-03-10 11:39:08  
Date of Next Testing: 2027-03-09 11:39:08  
Product Name: **3-Thiophenemalonic acid**  
CAS Number: 21080-92-2  
Specifications & Purity:  $\geq 98\%$   
Lot #: C2303047  
SKU #: **T124059**  
Version: **0**  
**Analysis #:** **172949**  
Storage Temperature: Room temperature

| Parameter                                             | Limit Values                                  | Result                                        |
|-------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Purity(Neutralization titration)                      | 97.5-102.5 (%)                                | 100.86000 %                                   |
| Purity(HPLC)                                          | 98-100 (%)                                    | 99.29100 %                                    |
| Appearance (T124059)                                  | White to Beige Powder, Crystals and/or Chunks | White to Beige Powder, Crystals and/or Chunks |
| Solubility in H <sub>2</sub> O , very faint turbidity | pass                                          | Pass                                          |
| Infrared spectrum                                     | Conforms to Structure                         | Conforms to Structure                         |
| Proton NMR spectrum                                   | Conforms to Structure                         | Conforms to Structure                         |



John Su  
QA & QC Manager