

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-03-10 11:20:16  
 Date of Next Testing: 2027-03-09 11:20:16  
 Product Name: **3-Thiophenemalonic acid**  
 CAS Number: 21080-92-2  
 Specifications & Purity:  $\geq 98\%$   
 Lot #: C23021260  
 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