

## Certificate of Analysis

Date of Testing: 2022-11-11 13:13:16  
Date of Next Testing: 2026-11-10 13:13:16  
Product Name: **MES**  
CAS Number: 4432-31-9  
Specifications & Purity:  $\geq 99.5\%$ (T)  
Lot #: K2209727  
SKU #: **M163013**  
**Analysis:** **149509**  
Storage Temperature: Room temperature

| Parameter   | Limit Values                 | Result                       |
|---|------------------------------|------------------------------|
| PH(25 °C,1% in Water)                                       | 3-4.2                        | 3.70                         |
| Water by Karl Fischer                                       | 0-9 (%)                      | 0.73 %                       |
| Purity (Titration by NaOH)                                  | 99.5-100.5 (%)               | 99.51 %                      |
| Appearance (M163013Color)                                   | White                        | White                        |
| Proton NMR spectrum   | Conforms to Structure        | Conforms to Structure        |
| Solubility in H <sub>2</sub> O , colorless and clear (0.1M) | pass                         | Pass                         |
| Appearance (M163013Form)                                    | Crystalline Powder or chunks | Crystalline Powder or chunks |
| Infrared spectrum   | Conforms to Structure        | Conforms to Structure        |



John Su  
QA & QC Manager