

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-04-09 15:59:54  
Date of Next Testing: 2028-04-08 15:59:54  
Product Name: **1-Methyl-2-pyrrolidinone**  
CAS Number: 872-50-4  
Specifications & Purity: >99.5% (GC)  
Lot #: C2429051  
SKU #: **M103248**  
Version: **2**  
Analysis #: **391391**  
Storage Temperature: Protected from light, Argon charged, Desiccated

| Parameter                           | Limit Values                     | Result                           |
|-------------------------------------|----------------------------------|----------------------------------|
| Purity(GC)                          | 99.5-100 (%)                     | 99.63%                           |
| Refractive index n <sub>20</sub> /D | 1.468-1.472                      | 1.47                             |
| Water by Karl Fischer               | 0-0.02 (%)                       | 0.02%                            |
| Free amine                          | 0-0.001 (%)                      | 0.00%                            |
| Density (20°C)                      | 1.032-1.036                      | 1.03                             |
| Specific gravity                    | 1.025-1.035                      | 1.03                             |
| Appearance (M103248)                | Colorless to light yellow liquid | Colorless to light yellow liquid |
| Proton NMR spectrum                 | Conforms to Structure            | Conforms to Structure            |



John Su  
QA & QC Manager