

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-11-15 17:01:11

Date of Next Testing: 2027-11-14 17:01:11

Product Name: **2-Pyrrolidinone**

CAS Number: 616-45-5

Specifications & Purity:  $\geq 99\%$

Lot #: K2306287

SKU #: **P112692**

Version: **1**

Analysis #: **290324**

Storage Temperature: Protected from light, Room temperature, Argon charged

| Parameter                           | Limit Values                                  | Result                                        |
|-------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Purity(GC)                          | 99-100 (%)                                    | 99.85800 %                                    |
| Refractive index n <sub>20</sub> /D | 1.482-1.488                                   | 1.48800                                       |
| Density (25°C)                      | 1.103-1.121                                   | 1.11500                                       |
| Water by Karl Fischer               | 0-0.2 (%)                                     | 0.15200 %                                     |
| Appearance (P112692)                | colorless to light yellow liquid or semisolid | colorless to light yellow liquid or semisolid |
| Proton NMR spectrum                 | Conforms to Structure                         | Conforms to Structure                         |



John Su  
QA & QC Manager