

Shanghai Aladdin Biochemical Technology Co., LTD  
809 Chuhua Branch Road, Fengxian District, Shanghai 201400, China

## Certificate of Analysis

Date of Testing: 2023-07-18 14:03:37  
Date of Next Testing: 2027-07-17 14:03:37  
Product Name: **4-Methylimidazole**  
CAS Number: 822-36-6  
Specifications & Purity:  $\geq 98\%$   
Lot #: F2330832  
SKU #: **M112296**  
Version: **0**  
Analysis #: **159855**  
Storage Temperature: Store at 2-8°C, Argon charged

| Parameter                                                       | Limit Values                                     | Result                                           |
|-----------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| Melting point                                                   | 52-56 (°C)                                       | 52.71000 °C                                      |
| Water by Karl Fischer                                           | 0-2 (%)                                          | 0.60990 %                                        |
| Purity(GC)                                                      | 98-100 (%)                                       | 99.43400 %                                       |
| Appearance (M112296)                                            | White to Yellow Crystals to Powder and/or Chunks | White to Yellow Crystals to Powder and/or Chunks |
| Proton NMR spectrum                                             | Conforms to Structure                            | Conforms to Structure                            |
| Solubility in H <sub>2</sub> O , Colorless to Yellow, Clear, 5% | pass                                             | Pass                                             |
| Infrared spectrum                                               | Conforms to Structure                            | Conforms to Structure                            |

