

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2026-06-23 17:30:22  
 Date of Next Testing: 2030-06-22 17:30:22  
 Product Name: **1,4-Dimethylpiperazine**  
 CAS Number: 106-58-1  
 Specifications & Purity:  $\geq 98\%$ (GC)  
 Lot #: F2608102  
 SKU #: **D124551**  
 Version: **1**  
 Analysis #: **356418**  
 Storage Temperature: Room temperature, Argon charged

| Parameter                           | Limit Values                           | Result                                 |
|-------------------------------------|----------------------------------------|----------------------------------------|
| Purity(Nonaqueous Titration)        | 98-100 (%)                             | 98.90000 %                             |
| Refractive index n <sub>20</sub> /D | 1.445-1.448                            | 1.44710                                |
| Purity(GC)                          | 98-100 (%)                             | 99.70800 %                             |
| Density (20°C)                      | 0.852-0.855                            | 0.85300                                |
| Appearance (D124551)                | Colorless to Light yellow clear liquid | Colorless to Light yellow clear liquid |
| Proton NMR spectrum                 | Conforms to structure                  | Conforms to Structure                  |



John Su  
 QA & QC Manager