

Certificate of Analysis

Date of Testing: 2023-09-05 10:10:03

Date of Next Testing: 2027-09-04 10:10:03

Product Name: **1,4-Dimethylpiperazine**

CAS Number: 106-58-1

Specifications & Purity: >98.0%(GC)

Lot #: K1915206

SKU #: **D124551**

Analysis: **271363**

Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(NonaqueousTitration)	98-100 (%)	98.01 %
Refractive index n ₂₀ /D	1.445-1.448	1.45
Purity(GC)	98-100 (%)	98.09 %
Density (20°C)	0.852-0.855	0.85
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