

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2025-12-10 18:37:40  
Date of Next Testing: 2029-12-09 18:37:40  
Product Name: **Morpholine**  
CAS Number: 110-91-8  
Specifications & Purity: CP, ≥98%  
Lot #: L2508035  
SKU #: **M109061**  
Version: **1**  
Analysis #: **623480**  
Storage Temperature: Room temperature

Parameter	Limit Values	Result
Refractive index n <sub>20</sub> /D	1.453-1.455	1.45
Ignition Residue (as sulfate)	0-0.1 (%)	0.00 %
Density (20°C)	0.997-1.005	1.00
Purity(GC)	98-100 (%)	99.44 %
Water by Karl Fischer	0-1.5 (%)	0.02 %
Solubility in EtOH , clear,50mg/ml	pass	Pass
NMR Spectrum 1H	Conforms to structure	Conforms to Structure



John Su  
QA & QC Manager