

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-12-18 19:12:21  
Date of Next Testing: 2026-12-18 19:12:21  
Product Name: **Ethyl 1-piperazinecarboxylate**  
CAS Number: 120-43-4  
Specifications & Purity:  $\geq 99\%$   
Lot #: L2413136  
SKU #: **E131861**  
Version: **1**  
Analysis #: **451899**

Parameter	Limit Values	Result
Refractive index n <sub>20</sub> /D	1.476-1.479	1.48
Density (20°C)	1.087-1.091	1.09
Purity(GC)	99-100 (%)	99.03 %
Appearance (E131861)	Colorless to Pale Yellow Viscous Liquid	Colorless to Pale Yellow Viscous Liquid
Proton NMR spectrum	Conforms to structure	Conforms to Structure



John Su  
QA & QC Manager