

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-08-08 15:12:33  
Date of Next Testing: 2026-08-07 15:12:33  
Product Name: **Ethyl 4-oxo-1-piperidinecarboxylate**  
CAS Number: 29976-53-2  
Specifications & Purity: 98%  
Lot #: K1417002  
SKU #: **E109371**  
**Analysis:** **122432**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(GC)	98-100 (%)	98.07%
Water by Karl Fischer	0-0.5 (%)	0.32%
Density (20°C)	1.137-1.14	1.14
Refractive index n <sub>20</sub> /D	1.474-1.477	1.48
Appearance (E109371)	Colorless to Yellow Liquid	Colorless to Yellow Liquid
Proton NMR spectrum	Conforms to structure	Conforms to Structure



John Su  
QA & QC Manager