

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-04-23 15:39:04

Date of Next Testing: 2027-04-22 15:39:04

Product Name: (-)-Limonene

CAS Number: 5989-54-8

Specifications & Purity: $\geq 95\%$ (GC)

Lot #: D2318152

SKU #: L157739

Version: 0

Analysis #: 052721

Storage Temperature: Protected from light, Room temperature, Argon charged

Parameter	Limit Values	Result
Specific Rotation [a] _D 20/D(c=Neat)	-90--61 (°)	-88.48300 °
Purity(GC)	95-100 (%)	97.43700 %
Appearance (L157739)	colorless to pale yellow liquid	colorless to pale yellow liquid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager