

## Certificate of Analysis

Date of Testing: 2022-12-08 20:10:47  
Date of Next Testing: 2024-12-07 20:10:47  
Product Name:  **$\alpha$ -Pinene**  
CAS Number: 80-56-8  
Specifications & Purity: 98%  
Lot #: L2206852  
SKU #: **P137373**  
Analysis: **159385**

Parameter	Limit Values	Result
Purity(GC)	98-100 (%)	99.13%
Specific Rotation [a] <sub>D</sub> 20/D(c=Neat)	-0.2-0.2 (°)	0.11°
Appearance (P137373)	Colorless Liquid	Colorless liquid
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager