

## Certificate of Analysis

Date of Testing: 2022-06-10 00:59:48  
Date of Next Testing: 2026-06-09 00:59:48  
Product Name: **Piperitone (mixture of enantiomers, predominantly (R)-(-)-form)**  
CAS Number: 89-81-6  
Specifications & Purity: >94.0%(GC)  
Lot #: F2208385  
SKU #: **P160623**  
**Analysis:** **091167**  
Storage Temperature: Store at 2-8°C

Parameter	Limit Values	Result
Specific Rotation [a] <sub>D</sub> <sup>20</sup>	-60--45 (°)	-50.10°
Purity(GC)	94-100 (%)	95.50%
Refractive index n <sub>D</sub> <sup>20</sup>	1.483-1.487	1.49
Appearance (P160623)	colorless to dark yellow liquid	colorless to dark yellow liquid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager