

## Certificate of Analysis

Date of Testing: 2023-01-05 09:44:44  
Date of Next Testing: 2025-01-04 09:44:44  
Product Name: **Methyl (S)-(-)-3-Bromoisobutyrate**  
CAS Number: 98190-85-3  
Specifications & Purity: >97.0%(GC)  
Lot #: C1927132  
SKU #: **M158847**  
Analysis: **174227**

Parameter	Limit Values	Result
Purity(GC)	97-100 (%)	97.15 %
Refractive index n <sub>20</sub> /D	1.453-1.457	1.46
Optical purity(GC)(ee)	97-100 (%)	97.15 %
specific rotation [ $\alpha$ ] <sub>20</sub> /D(c=Neat)	-19~-13 (°)	-16.20000 °
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager