

## Certificate of Analysis

Date of Testing: 2022-09-02 10:22:24  
Date of Next Testing: 2026-09-01 10:22:24  
Product Name: **(1S)-(+)-Menthyl chloroformate**  
CAS Number: 7635-54-3  
Specifications & Purity: 97%  
Lot #: H2222071  
SKU #: **M113561**  
**Analysis: 130812**  
Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Specific Specific Rotation(neat)	79-85 (°)	80.80°
Refractive index n <sub>20</sub> /D	1.458-1.46	1.46
Density (20°C)	1.031-1.035	1.03
Purity(GC)	97-100 (%)	98.20%
Appearance (M113561)	colorless to brown liquid	colorless to brown liquid
NMR Spectrum 1H	conforms to structure	Conforms to Structure



John Su  
QA & QC Manager