

## Certificate of Analysis

Date of Testing: 2022-03-11 10:10:36  
Date of Next Testing: 2024-03-10 10:10:36  
Product Name: **5-Bromovaleryl chloride**  
CAS Number: 4509-90-4  
Specifications & Purity: >95.0%(T)  
Lot #: C2208022  
SKU #: **B138857**  
**Analysis:** **082081**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Refractive index n <sub>20</sub> /D	1.49-1.494	1.49
Density (20°C)	1.505-1.514	1.51
Purity(GC)	94-100 (%)	94.94%
Purity (Argentmetric Titration)	94.5-105.5 (%)	102.18%
Appearance (B138857)	Colorless to pale brown liquid	Colorless to pale brown liquid
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager