

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2026-07-17 13:31:56  
 Date of Next Testing: 2030-07-16 13:31:56  
 Product Name: **(R)-4-Chloro-3-hydroxybutyric Acid Ethyl Ester**  
 CAS Number: 90866-33-4  
 Specifications & Purity:  $\geq 95\%$   
 Lot #: J2214272  
 SKU #: **C108078**  
 Version: **0**  
 Analysis #: **737253**  
 Storage Temperature: Store at 2-8°C

| Parameter                                          | Limit Values               | Result                     |
|----------------------------------------------------|----------------------------|----------------------------|
| Specific Rotation $[\alpha]_{20/D}(c=\text{Neat})$ | 11-18 (°)                  | 14.08000 °                 |
| Density (20°C)                                     | 1.188-1.192                | 1.19000                    |
| Refractive index $n_{20/D}$                        | 1.451-1.455                | 1.45200                    |
| Purity(GC)                                         | 95-100 (%)                 | 95.38000 %                 |
| Appearance (C108078)                               | Colorless to Yellow Liquid | Colorless to Yellow Liquid |
| Proton NMR spectrum                                | Conforms to Structure      | Conforms to Structure      |



John Su  
QA & QC Manager