

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-10-18 15:04:32  
Date of Next Testing: 2026-10-18 15:04:32  
Product Name: **(R)-3-Hydroxyisobutyric Acid Methyl Ester**  
CAS Number: 72657-23-9  
Specifications & Purity:  $\geq 98\%$ (GC)  
Lot #: E1920147  
SKU #: **R136025**  
Version: **0**  
Analysis #: **422959**  
Storage Temperature: Store at  $-20^{\circ}\text{C}$

| Parameter  | Limit Values                     | Result                           |
|--|----------------------------------|----------------------------------|
| Purity(GC)   | 98-100 (%)                       | 99.10%                           |
| Specific Rotation $[\alpha]_{20/D}(c=4 \text{ in MeOH})$ | -29--22 ( $^{\circ}$ )           | -25.30 $^{\circ}$                |
| Enantiometric Excess                                     | 98-100 (%)                       | 99.30%                           |
| Appearance (R136025)                                     | Colorless to light yellow liquid | Colorless to light yellow liquid |
| Proton NMR spectrum                                      | Conforms to Structure            | Conforms to Structure            |



John Su  
QA & QC Manager