

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-05-06 14:03:03  
 Date of Next Testing: 2027-05-05 14:03:03  
 Product Name: **Methyl (R)-(-)-mandelate**  
 CAS Number: 20698-91-3  
 Specifications & Purity:  $\geq 98\%$   
 Lot #: I1502004  
 SKU #: **M107989**  
 Version: **2**  
 Analysis #: **218307**  
 Storage Temperature: Room temperature

| Parameter                                                | Limit Values             | Result                   |
|----------------------------------------------------------|--------------------------|--------------------------|
| Enantiomeric excess (HPLC)                               | 97-100 (%)               | 98.30000 %               |
| Purity(GC)                                               | 98-100 (%)               | 98.35800 %               |
| Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in MeOH})$ | -150--140 ( $^{\circ}$ ) | -141.00000 $^{\circ}$    |
| Appearance (M107989)                                     | White Powder or Crystals | White Powder or Crystals |
| Proton NMR spectrum                                      | Conforms to structure    | Conforms to Structure    |



John Su  
 QA & QC Manager