

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-01-11 13:37:43  
Date of Next Testing: 2027-01-10 13:37:43  
Product Name: **N-Benzylquininium Chloride [Chiral Phase-Transfer Catalyst]**  
CAS Number: 67174-25-8  
Specifications & Purity: 95%  
Lot #: C1915174  
SKU #: **B120850**  
Analysis: **177595**

| Parameter  | Limit Values             | Result                   |
|--|--------------------------|--------------------------|
| Purity(HPLC)   | 95-100 (%)               | 98.81000%                |
| Specific Rotation [ $\alpha$ ] <sub>20</sub> /D(c=1.5 in H <sub>2</sub> O) | -240--215 (°)            | -215.90°                 |
| Loss on drying   | 0-5 (%)                  | 2.90%                    |
| Purity(Titration by AgNO <sub>3</sub> )                                    | 94-106 (%)               | 95.10%                   |
| Appearance (B120850)   | White Powder or Crystals | White Powder or Crystals |
| Proton NMR spectrum  | Conforms to Structure    | Conforms to Structure    |



John Su  
QA & QC Manager