

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-04-09 21:59:28

Date of Next Testing: 2025-04-08 21:59:28

Product Name: (R)-(-)-(3,5-Dioxa-4-phosphacyclohepta[2,1-a;3,4-a'] dinaphthalen-4-yl)dimethylamine

CAS Number: 157488-65-8

Specifications & Purity:  $\geq 97\%$

Lot #: D2304226

SKU #: R138311

Version: 0

Analysis #: 169384

Storage Temperature: Room temperature, Argon charged

| Parameter                                                    | Limit Values                       | Result                             |
|--------------------------------------------------------------|------------------------------------|------------------------------------|
| Specific Rotation $[\alpha]_{20/D}(c=0.3 \text{ in CHCL}_3)$ | -600--560 (°)                      | -593.21600 °                       |
| Purity(HPLC)                                                 | 97-100 (%)                         | 97.86800 %                         |
| Appearance (R138311)                                         | White to yellow powder or crystals | White to yellow powder or crystals |
| Phosphorus NMR Spectra                                       | Conforms to Structure              | Conforms to Structure              |
| Proton NMR spectrum                                          | Conforms to Structure              | Conforms to Structure              |



John Su  
QA & QC Manager