

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-02-29 16:17:24

Date of Next Testing: 2027-02-28 16:17:24

Product Name: **(S)-(-)-7,7'-Bis[di(4-methylphenyl)phosphino]-2,2',3,3'-tetrahydro-1,1'-spirobiindene**

CAS Number: 817176-80-0

Specifications & Purity: 97%

Lot #: B2423105

SKU #: **S282118**

Analysis: **308072**

Storage Temperature: Protected from light, Store at -20°C, Argon charged

| Parameter | Limit Values | Result |
|--------------------------|-----------------------|-----------------------|
| Purity(As C) | 97-100 (%) | 99.65 % |
| Optical purity(HPLC)(ee) | 98-100 (%) | 99.66 % |
| Phosphorus NMR Spectra | Conforms to Structure | Conforms to Structure |
| Proton NMR spectrum | Conforms to Structure | Conforms to Structure |



John Su
QA & QC Manager