

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

|                          |                                                                                 |
|--------------------------|---------------------------------------------------------------------------------|
| Date of Testing:         | 2025-06-27 18:29:47                                                             |
| Date of Next Testing:    | 2028-06-26 18:29:47                                                             |
| Product Name:            | (S)-(-)-5,5'-Dichloro-2,2'-bis(diphenylphosphino)-6,6'-di methoxy-1,1'-biphenyl |
| CAS Number:              | 185913-98-8                                                                     |
| Specifications & Purity: | ≥97%                                                                            |
| Lot #:                   | F2510048                                                                        |
| SKU #                    | S281965                                                                         |
| Version                  | 2                                                                               |
| Analysis #:              | 240888                                                                          |
| Storage Temperature:     | Room temperature                                                                |

| Parameter                                | Limit Values                          | Result                                |
|------------------------------------------|---------------------------------------|---------------------------------------|
| Carbon by Elemental Analysis             | 67.95-72.15 (%)                       | 69.70100 %                            |
| Specific rotation                        | -63--55 (°)                           | -60.53400 °                           |
| [α] <sub>20</sub> /D (C=1% , Chloroform) |                                       |                                       |
| NMR Spectrum 1H                          | Conforms to structure                 | Conforms to Structure                 |
| Appearance(S281965)                      | White to Off White Powder or Crystals | White to Off White Powder or Crystals |



John Su  
QA & QC Manager