

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2025-11-11 17:21:37
 Date of Next Testing: 2027-11-01 17:21:37
 Product Name: (S)-(-)-2,2'-Bis(di-p-tolylphosphino)-1,1'-binaphthyl
 CAS Number: 100165-88-6
 Specifications & Purity: ≥98%
 Lot #: J2528112
 SKU #: S115619
 Version: 0
 Analysis #: 608089
 Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Specific Rotation [α] ₂₀ /D(c=0.4 in Pyridene)	-165--155 (°)	-163.86300 °
Optical purity(HPLC)(ee)	99-100 (%)	99.01800 %
Purity(HPLC)	98-100 (%)	98.76600 %
Appearance (S115619)	white to off-white powder or flakes	white to off-white powder or flakes
Phosphorus NMR Spectra	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager