

Certificate of Analysis

Date of Testing: 2023-07-14 16:09:22

Date of Next Testing: 2025-07-03 16:09:22

Product Name: (R)-(+)-2,2'-Bis(diphenylphosphino)-1,1'-binaphthalene

CAS Number: 76189-55-4

Specifications & Purity: 98%

Lot #: G2311647

SKU #: B106732

Analysis: 185835

Storage Temperature: Argon charged

Parameter	Limit Values	Result
Melting point	240-243 (°C)	241.66000 °C
Specific rotation $[\alpha]_{20/D}(C=0.3\%, \text{Toluene})$	218 - 248 (°)	239.45200 °
Purity(HPLC)	98-100 (%)	99.94900 %
Optical purity(HPLC)(ee)	99-100 (%)	100.00 %
Appearance (B106732)	white to beige powder or crystals	white to beige powder or crystals
Phosphorus NMR Spectra	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager