

Certificate of Analysis

Date of Testing: 2025-08-08 14:26:20

Date of Next Testing: 2027-07-29 14:26:20

Product Name: **(R)-DM-BINAP**

CAS Number: 137219-86-4

Specifications & Purity: $\geq 98\%$

Lot #: L2129337

SKU #: **R115620**

Version: **0**

Analysis #: **547046**

Storage Temperature: Argon charged

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D(c=1 \text{ CHCL}_3)}$	164-174 ($^{\circ}$)	168.64 $^{\circ}$
Melting point	187-191 ($^{\circ}\text{C}$)	189.54700 $^{\circ}\text{C}$
Purity(NMR)	98-100 (%)	98.01 %
Appearance (R115620)	white to beige powder or crystals	white to beige powder or crystals
Infrared spectrum	Conforms to Structure	Conforms to Structure
NMR (^1H -NMR)	complies	complies
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager