

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-03-02 16:22:30

Date of Next Testing: 2026-03-01 16:22:30

Product Name: (S)-(+)-(3,5-Dioxa-4-phospha-cyclohepta[2,1-a;3,4-a"]dinaphthalen-4-yl)morpholine

CAS Number: 185449-81-4

Specifications & Purity: $\geq 96\%$, $\geq 99\%$ (ee)

Lot #: B23241177

SKU #: S281989

Version: 1

Analysis #: 161609

Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Enantiomeric Excess	99-100 (%)	99.20000 %
Purity(HPLC area)	96-100 (%)	96.54600 %
NMR Spectrum 1H	Conforms to Structure	Conforms to Structure
31P NMR spectrum	Conforms to structure	Conforms to Structure



John Su
QA & QC Manager