

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-03-14 18:31:32  
Date of Next Testing: 2025-03-13 18:31:32  
Product Name: (S)-RuCl[(p-cymene(BINAP)]Cl  
CAS Number: 130004-33-0  
Specifications & Purity: 98%  
Lot #: C2310083  
SKU #: S138141  
**Analysis: 167912**  
Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	98.00000 %
Carbon by Elemental Analysis	67.00-72.58 (%)	67.21 %
ICP: Confirms Ruthenium	Confirmed	Confirmed
Component		
Phosphorus NMR Spectra	Conforms to Structure	Conforms to Structure
Appearance (S138141)	Yellow to Dark Orange to Dark-Yellow crystalline Powder	Yellow to Dark Orange to Dark-Yellow crystalline Powder



John Su  
QA & QC Manager