

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-04-17 13:55:32  
Date of Next Testing: 2027-04-16 13:55:32  
Product Name: **Tris(2,2'-bipyridine)dichlororuthenium(II) hexahydrate**  
CAS Number: 50525-27-4  
Specifications & Purity: 98%  
Lot #: G1908158  
SKU #: **T113540**  
**Analysis:** **212368**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Carbon by Elemental Analysis	45.7-50.5 (%)	50.45 %
Nitrogen by Elemental Analysis	10.7-11.8 (%)	11.79 %
Water by Karl Fischer	12-15 (%)	12.00 %
Appearance (T113540)	Red to Red-Orange to Orange Powder or Crystals	Red to Red-Orange to Orange Powder or Crystals
Infrared spectrum	Conforms to Structure	Conforms to Structure
Solubility in H <sub>2</sub> O , Clear to Slightly Hazy, Orange to Red, 1%	pass	Pass
ICP: Confirms Ruthenium Component	Confirmed	Confirmed



John Su  
QA & QC Manager