

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-07-14 09:09:17
 Date of Next Testing: 2027-07-13 09:09:17
 Product Name: **Cinchonine monohydrochloride hydrate**
 CAS Number: 5949-11-1
 Specifications & Purity: $\geq 80\%$
 Lot #: K1519008
 SKU #: **C100937**
 Version: **0**
 Analysis #: **251464**
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Purity(Nonaqueous Titration)(calcd.onanh.substance)	98-100 (%)	98.10000 %
Loss on drying	0-12 (%)	6.15000 %
Purity(HPLC)	80-100 (%)	91.65500 %
Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in EtOH})$	177-187 ($^{\circ}$)	180.60000 $^{\circ}$
Appearance (C100937)	white powder	White powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager