

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2022-11-28 19:29:01
 Date of Next Testing: 2026-11-27 19:29:01
 Product Name: **1,4,8,11-Tetraazacyclotetradecane**
 CAS Number: 295-37-4
 Specifications & Purity: $\geq 98\%$
 Lot #: K2225715
 SKU #: **T130042**
 Version: **0**
 Analysis #: **124850**
 Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Melting point	183-193 (°C)	191.02000 °C
Purity(Nonaqueous Titration)	97.5-102.5 (%)	99.60000 %
Purity(GC)	98-100 (%)	98.30200 %
Appearance (T130042)	White to Off-White Solid, Powder, or Crystals	White to Off-White Solid, Powder, or Crystals
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility in MeOH , Very faint turbidity	pass	Pass



John Su
QA & QC Manager