



ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2025-08-25 17:20:01

Date of Next Testing: 2029-08-24 17:20:01

Product Name: **Piperazine Citrate Hydrate**

CAS Number: 144-29-6

Specifications & Purity: $\geq 98\%$ (T)

Lot #: H2515103

SKU #: **P160728**

Version: **0**

Analysis #: **564217**

Storage Temperature: Room temperature

Parameter	Limit Values	Result
Purity(Titration by HClO ₄)(anhydrous)	97.5-102.5 (%)	97.60000 %
Water by Karl Fischer	0-12 (%)	2.40000 %
Proton NMR spectrum	Conforms to Structure	Conforms to Structure

John Su
QA & QC Manager