

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-02-08 10:42:32

Date of Next Testing: 2027-02-07 10:42:32

Product Name: **Tris(4-carbazoyl-9-ylphenyl)amine (TCTA)**

CAS Number: 139092-78-7

Specifications & Purity: $\geq 98\%$

Lot #: E1521054

SKU #: **T123987**

Version: **0**

Analysis #: **184489**

Storage Temperature: Room temperature, Argon charged

Parameter	Limit Values	Result
Carbon by Elemental Analysis	85.2-88 (%)	87.00000 %
Nitrogen by Elemental Analysis	6.9-8.1 (%)	7.03000 %
Purity(HPLC)	98-100 (%)	98.00000 %
Appearance (T123987)	White to Grey to Orange to Green Powder or Crystals and/or Chunks	White to Grey to Orange to Green Powder or Crystals and/or Chunks
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager