

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-03-14 15:49:46

Date of Next Testing: 2025-03-03 15:49:46

Product Name: (Tri-n-butyl)-n-tetradecylphosphonium chloride

CAS Number: 81741-28-8

Specifications & Purity: 97%

Lot #: F2115262

SKU #: T121853

Analysis: 198945

| Parameter                               | Limit Values                                 | Result                                       |
|-----------------------------------------|----------------------------------------------|----------------------------------------------|
| Purity(Titration by AgNO <sub>3</sub> ) | 96.5-103.5 (%)                               | 102.00 %                                     |
| Appearance (T121853)                    | White to Off-White Powder or Solid or Chunks | White to Off-White Powder or Solid or Chunks |
| Infrared spectrum                       | Conforms to Structure                        | Conforms to Structure                        |
| Proton NMR spectrum                     | Conforms to Structure                        | Conforms to Structure                        |

A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager