

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-11-09 13:07:25

Date of Next Testing: 2026-10-30 13:07:25

Product Name: **Tris(2-carboxyethyl)phosphine hydrochloride (TCEP HCl)**

CAS Number: 51805-45-9

Specifications & Purity:  $\geq 98\%$

Lot #: K2407544

SKU #: **T107252**

Version: **0**

Analysis #: **428320**

Storage Temperature: Store at 2-8°C, Protected from light, Argon charged

| Parameter                                                                            | Limit Values             | Result                   |
|--------------------------------------------------------------------------------------|--------------------------|--------------------------|
| Carbon by Elemental Analysis(anhydrous)                                              | 37-40.2 (%)              | 37.71700 %               |
| Purity(HPLC)                                                                         | 98-100 (%)               | 99.70900 %               |
| Water by Karl Fischer                                                                | 0-6 (%)                  | 4.45840 %                |
| Appearance (T107252)                                                                 | White Powder or Crystals | White Powder or Crystals |
| Proton NMR spectrum                                                                  | Conforms to Structure    | Conforms to Structure    |
| Solubility in H <sub>2</sub> O , Colorless, Clear to Very Slightly Hazy, 50mg/ml(5%) | pass                     | Pass                     |



John Su  
QA & QC Manager