

## Certificate of Analysis

Date of Testing: 2023-12-20 11:12:57

Date of Next Testing: 2027-12-19 11:12:57

Product Name: **Triethanolamine hydrochloride**

CAS Number: 637-39-8

Specifications & Purity: 99.5%

Lot #: L2318301

SKU #: **T103912**

**Analysis:** **302440**

Storage Temperature: Argon charged

| Parameter                                                 | Limit Values             | Result                   |
|-----------------------------------------------------------|--------------------------|--------------------------|
| Heavy metal (as Pb)                                       | 0-5 (ppm)                | 4.50 ppm                 |
| Water by Karl Fischer                                     | 0-0.2 (%)                | 0.10 %                   |
| Purity(Titration by AgNO <sub>3</sub> )                   | 99.5-100.5 (%)           | 99.95 %                  |
| Appearance (T103912)                                      | white crystalline powder | white crystalline powder |
| Proton NMR spectrum                                       | Conforms to Structure    | Conforms to Structure    |
| Solubility,Colorless Clear ,25 g /75 ml, H <sub>2</sub> O | pass                     | Pass                     |
| Infrared spectrum                                         | Conforms to Structure    | Conforms to Structure    |



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