



Certificate of Analysis

TRIS-HCl

(Tris (Hydroxymethyl) Aminomethane Hydrochloride)

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| <u>Catalog #</u> IB70162 | <u>Size</u> 500 gm |
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Catalog Number: IB70162

Lot Number: 18E0158

Molecular Formula: C₄H₁₁NO₃•HCl

Molecular Weight: 157.64

Appearance: White, crystalline powder to needle-like crystals

| <u>Assay</u> | <u>Min</u> | <u>Max</u> | <u>Actual</u> | <u>Units</u> | <u>Disposition</u> |
|------------------------|------------|------------|---------------|--------------|--------------------|
| Purity (Titration) | 99.5 | | 100.4 | % | PASS |
| Insolubles | | 0.001 | <=0.001 | % | PASS |
| pH (0.1M, Water) @25°C | 4.2 | 4.9 | 4.6 | | PASS |
| Lead | | <0.0001 | <0.0001 | % | PASS |
| Iron | | <0.001 | <0.0001 | % | PASS |
| Copper | | <0.0001 | <0.0001 | % | PASS |
| Magnesium | | <0.0001 | <0.0001 | % | PASS |
| Manganese | | <0.0001 | <0.0001 | % | PASS |
| Calcium | | <0.0001 | <0.0001 | % | PASS |
| Zinc | | <0.0001 | <0.0001 | % | PASS |
| RNase | | NONE | NONE | P/F | PASS |
| DNase | | NONE | NONE | P/F | PASS |
| Protease | | NONE | NONE | P/F | PASS |

Storage

Store at room temperature. Protect from moisture.

This signature indicates that the above material has met all quality specifications and has been reviewed by a quality representative.

Signature: Toby Frericks
Date: 07/10/2018