



CERTIFICATE OF ANALYSIS

Product : **TRIS Ultrapure (Tris(hydroxymethyl)aminomethane)**
Product number : T1501
Batch number : 014990
Date of production : 23-07-2018
Expiry date : 31-07-2023

Packaging and storage : in a well closed container, store at room temperature

| | SPECIFICATION | RESULT | UNITS | REMARKS |
|---------------------|-------------------------|----------|-------|-----------------|
| Appearance | white crystalline solid | complies | | |
| Solubility | soluble in water | complies | | 25°C / >700 g/l |
| Identification | conform | complies | | IR-spectrum |
| Insoluble matter | ≤ 0.005 | <0.005 | % | |
| Loss on drying | ≤ 0.2 | 0.08 | % | 3 hrs 105 °C |
| Melting point | 168.0 – 172.0 | 170.0 | °C | |
| pH | 10.5– 11.5 | 10.78 | | |
| Residue on ignition | ≤ 0.1 | < 0.1 | % | |
| Heavy metals | ≤ 1 | < 1 | ppm | as Pb |
| Iron (Fe) | ≤ 1 | < 1 | ppm | |
| Chloride (Cl) | ≤ 100 | < 5 | ppm | |
| Assay | 99.90-100.5 | 100.1 | % | titration |

This certificate of analysis is conform the results of the manufacturer.

Conclusion: approved

Released by:

drs. J. van der Eem, pharmacist
Department of Quality Control Duchefa B.V.

Date 08-11-2019

The buyer is responsible to test each batch to ensure the product is suitable for their specific purpose.

Duchefa Biochemie B.V.

