

## Certificate of Analysis

Date of Testing: 2023-05-24 14:14:05  
Date of Next Testing: 2027-05-23 14:14:05  
Product Name: **Tris(hydroxymethyl)aminomethane hydrochloride**  
CAS Number: 1185-53-1  
Specifications & Purity: reagent grade, ≥99%  
Lot #: E2311191  
SKU #: **T105287**  
**Analysis:** **213585**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity (Titration by NaOH)	99-100 (%)	99.64 %
Heavy metal (as Pb)	0-5 (ppm)	0.00 ppm
Water by Karl Fischer	0-1 (%)	0.38 %
Appearance (T105287)	white crystalline powder	white crystalline powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility, Colorless, Clear, 200 g plus 300 ml of H <sub>2</sub> O	pass	Pass



John Su  
QA & QC Manager