



ISO 9001 CERTIFIED  
ISO 13485 CERTIFIED

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CERTIFICATE OF QUALITY

**Product:** TRIS HYDROCHLORIDE  
**Grade:** ULTRA PURE GRADE  
**Code:** 0234  
**Appearance:** White, crystalline powder to needle-like crystals  
**Mol. Formula:** C<sub>4</sub>H<sub>11</sub>NO<sub>3</sub>.HCl  
**Mol. Weight:** 157.64

Description:

<u>Assay:</u>	<u>Min</u>	<u>Max</u>	<u>Units</u>	<u>Disposition</u>
Calcium		< 0.0001	%	PASS
Copper		< 0.0001	%	PASS
DNase		NONE	P/F	PASS
Insolubles		0.001	%	PASS
Iron		< 0.001	%	PASS
Lead		< 0.0001	%	PASS
Magnesium		< 0.0001	%	PASS
Manganese		< 0.0001	%	PASS
pH (0.1M, Water) @25C	4.2	4.9		PASS
Protease		NONE	P/F	PASS
Purity (Titration)	99.5		%	PASS
Reassay Date	REPORT			PASS
RNase		NONE	P/F	PASS
Zinc		< 0.0001	%	PASS

Storage: Store at room temperature. Protect from moisture.

0234UP

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

Signature:

Title:

QC MANAGER

Date:

6/29/2012