



**MP Biomedicals, LLC**

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## Certificate of Analysis

**Product Description:** Tris, Technical Grade\_

**Catalog Number:** 103132\_

**Lot:** MR29987\_

**Formula:** C<sub>4</sub>H<sub>11</sub>NO<sub>3</sub>

**CAS #:** 77-86-1

**Physical Description:** White Crystalline Powder

**Formula Weight:** 121.14

**Storage:** Room Temperature, desiccate

Test	Specification	Result
Identity Test	Passes	Passes
Purity	#96%	99.93% (GC, dried)
FTIR	Conforms to Standard	Conforms to Standard
Melting Point	165 - 172°C	170.8°C
pH (5% aq soln)	10 - 11.5	10.8

OD260 nm (5% aq soln): 0.01

Loss on Drying: 0.0%

Solubility (40% aq soln): Clear, Colorless Solution

Residue on Ignition: 0.00%

Heavy Metals (as Pb): <5.0 ppm

Iron (Fe): 0.6 ppm

Related Substances (GC): 0.07%

Assay (dry basis): 100.0%

Water: 0.1%

Color (APHA, 20% aq soln): <5

Water Insoluble Matter: 0.000%

OD280 nm (10% aq soln): 0.00

OD430 nm (10% aq soln): 0.000

OD290 nm (40% aq soln): 0.02

Identification A (USP): Passes

Identification B (USP): Passes

Identification C (USP): Passes

Heavy Metals (method 2, USP): <10 ppm

Residual Solvents (USP): Passes

Assay (titration, USP): Passes

Identification B (EP): Passes  
Identification C (EP): Passes  
Related Substances (EP): Passes  
Chloride (EP): <100 ppm  
Heavy Metals (method A, EP): Passes  
Iron (EP): Passes  
Sulfated Ash (EP): Passes  
Assay (titration, EP): Passes

*Christina Marotta*

12/21/2012 - Christina Marotta

MP Biomedicals, LLC.

Technical Director

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