



Certificate of Analysis

TRIS

UltraPure – Molecular Biology Grade - ACS

<u>Catalog #</u>	<u>Size</u>
IB70142	500gm
IB70144	1Kg
IB70145	5Kg
IB70147	50Kg

Catalog Number: IB70142, IB70144, IB70145, IB70147

Lot Number: 19C3001

Molecular Formula: C₄H₁₁NO₃

Molecular Weight: 121.14

Appearance: White crystals or crystalline powder

Color: White

<u>Assay</u>	<u>Min</u>	<u>Max</u>	<u>Actual</u>
Assay (by titration, on dried basis)	99.8%	100.3%	99.9%
Absorbance (1M solution in H ₂ O) 280 nm		≤0.1	0.0157
Absorbance (40% solution in H ₂ O) 290 nm		≤0.2	0.1
Identification (by IR)			PASS
Insoluble Matter		≤0.005%	0.001%
pH (0.05M solution in H ₂ O @ 25°C)	10.3	10.5	10.4
Water (by Karl Fischer)		≤2%	<0.1%
Heavy Metals (as Pb)		≤5 ppm	<1
Arsenic (As)		≤5 ppm	<5.0
Copper (Cu)		≤1 ppm	<1.0
Iron (Fe)		≤2 ppm	<1.0
Lead (Pb)		≤1 ppm	<1.0
Magnesium (Mg)		≤10 ppm	0.4
Electrophoresis			PASS
DNase Assay			NONE
RNase Assay			NONE
Protease Assay			NONE

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: 03/11/2019