



Material No.: 4103-01  
 Batch No.: 0000194580  
 Manufactured Date: 2016/09/05  
 Retest Date: 2021/09/04  
 Revision No: 1

## Certificate of Analysis

Test	Specification	Result
Assay (NH <sub>2</sub> C(CH <sub>2</sub> OH) <sub>3</sub> · HCl) (dried basis)	>= 99.0 %	99.5
Appearance	Passes Test	PT
Absorbance of a 1M Solution – 260 nm	<= 0.06	< 0.01
Absorbance of a 1M Solution – 280 nm	<= 0.06	0.01
Absorbance of a 1M Solution – 400 nm	<= 0.01	< 0.01
Water (H <sub>2</sub> O)(by Karl Fischer titrn)	<= 0.5 %	0.3
RNase Activity (None Detected)	Passes Test	PT
DNase Activity (None Detected)	Passes Test	PT
Protease Activity (None Detected)	Passes Test	PT
Trace Impurities – Calcium (Ca)	<= 1 ppm	< 1
Trace Impurities – Copper (Cu)	<= 1 ppm	< 1
Trace Impurities – Iron (Fe)	<= 1 ppm	< 1
Trace Impurities – Lead (Pb)	<= 1 ppm	< 1
Trace Impurities – Magnesium (Mg)	<= 1 ppm	< 1

For Laboratory, Research or Manufacturing Use

Country of Origin: TW  
 Packaging Site: Paris Mfg Ctr & DC



Phillipsburg, NJ 9001:2008, 14001:2004, FSSC 22000  
 Paris, KY 9001:2008  
 Mexico City, Mexico 9001:2008  
 Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003  
 Gliwice, Poland 9001:2008, 13485:2012  
 Selangor, Malaysia 9001:2008  
 Dehradun, India, 9001:2008, 14001:2004, 13485:2003  
 Mumbai, India, 9001:2008  
 Panoli, India 9001:2008

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