

Material No.: 9346-05 Batch No.: 0000223845

Manufactured Date: 2019/02/19

Retest Date: 2024/02/18 Revision No: 1

## Certificate of Analysis

Test	Specification	Result
Assay (HOCH2CH2OH) (by GC)	>= 99.0 %	100.0
Color (APHA)	<= 10	5
Acidity (µeq/g)	<= 0.8	0.6
Acidity (as CH <sub>3</sub> COOH)(by wt)	<= 0.01 %	< 0.01
Residue after Ignition	<= 0.005 %	< 0.001
Water (H2O)(by Karl Fischer titrn)	<= 0.2 %	< 0.1
Chloride (CI)	<= 1 ppm	< 1
Phosphate (PO <sub>4</sub> )	<= 2 ppm	< 2
Sulfate (SO <sub>4</sub> )	<= 2 ppm	< 2
Arsenic and Antimony (as As)	<= 0.100 ppm	< 0.100
Trace Impurities - Iron (Fe)	<= 0.2 ppm	< 0.1
Trace Impurities - Aluminum (Al)	<= 100.0 ppb	< 5.0
Trace Impurities - Barium (Ba)	<= 100.0 ppb	< 1.0
Trace Impurities – Boron (B)	<= 50.0 ppb	< 5.0
Trace Impurities - Calcium (Ca)	<= 300.0 ppb	2.0
Trace Impurities - Chromium (Cr)	<= 50.0 ppb	< 1.0
Trace Impurities - Copper (Cu)	<= 10.0 ppb	< 1.0
Trace Impurities - Gold (Au)	<= 50.0 ppb	< 5.0
Trace Impurities - Lead (Pb)	<= 200.0 ppb	< 10.0
Trace Impurities - Lithium (Li)	<= 100.0 ppb	< 1.0
Trace Impurities - Magnesium (Mg)	<= 100.0 ppb	< 1.0
Trace Impurities - Manganese (Mn)	<= 100.0 ppb	< 1.0
Trace Impurities - Nickel (Ni)	<= 100.0 ppb	< 5.0
Trace Impurities – Potassium (K)	<= 300.0 ppb	< 10.0

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<= 300.0 ppb <= 100.0 ppb	< 5.0 < 10.0
<= 100.0 ppb	< 10.0
<= 100.0 ppb	< 1.0
<= 400.0 ppb	9.5
<= 200 par/ml	9
<= 10 par/ml	4
	<= 400.0 ppb <= 200 par/ml

For Microelectronic Use

Country of Origin: US

Packaging Site: Paris Mfg Ctr & DC

