

Material No.: 9346-05 Batch No.: 0000262045

Manufactured Date: 2020/06/05

Retest Date: 2025/06/04 Revision No: 1

## Certificate of Analysis

Test	Specification	Result
Assay (HOCH2CH2OH) (by GC)	>= 99.0 %	99.9
Color (APHA)	<= 10	5
Acidity (µeq/g)	<= 0.8	0.3
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	1.0
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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Test	Specification	Result
Trace Impurities - Sodium (Na)	<= 300.0 ppb	< 5.0
Trace Impurities - Tin (Sn)	<= 100.0 ppb	< 10.0
Trace Impurities - Titanium (Ti)	<= 100.0 ppb	< 1.0
Trace Impurities - Zinc (Zn)	<= 400.0 ppb	24.3
Particle Count - 0.5 µm and greater	<= 200 par/ml	4
Particle Count - 1.0 µm and greater	<= 10 par/ml	2

For Microelectronic Use

Country of Origin: US

Packaging Site: Paris Mfg Ctr & DC

