

Certificate of Analysis

Test	Specification	Result
Assay (HOCH ₂ CH ₂ OH) (by GC)	≥ 99.0 %	100.0 %
Color (APHA)	≤ 10	< 5
Acidity (µeq/g)	≤ 0.8	0.4
Acidity (as CH ₃ COOH)(by wt)	≤ 0.01 %	< 0.01 %
Residue after Ignition	≤ 0.005 %	< 0.001 %
Water (H ₂ O)(by Karl Fischer titrn)	≤ 0.2 %	< 0.1 %
Chloride (Cl)	≤ 1 ppm	< 1 ppm
Phosphate (PO ₄)	≤ 2 ppm	< 2 ppm
Sulfate (SO ₄)	≤ 2 ppm	< 2 ppm
Arsenic and Antimony (as As)	≤ 0.100 ppm	< 0.100 ppm
Trace Impurities – Iron (Fe)	≤ 0.2 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 100.0 ppb	< 5.0 ppb
Trace Impurities – Barium (Ba)	≤ 100.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 50 ppb	< 5 ppb
Trace Impurities – Calcium (Ca)	≤ 300 ppb	12 ppb
Trace Impurities – Chromium (Cr)	≤ 50 ppb	6 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gold (Au)	≤ 50 ppb	< 5 ppb
Trace Impurities – Lead (Pb)	≤ 200.0 ppb	27.0 ppb
Trace Impurities – Lithium (Li)	≤ 100.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 100.0 ppb	1.2 ppb
Trace Impurities – Manganese (Mn)	≤ 100.0 ppb	1.3 ppb
Trace Impurities – Nickel (Ni)	≤ 100.0 ppb	6.1 ppb
Trace Impurities – Potassium (K)	≤ 300.0 ppb	< 10.0 ppb
Trace Impurities – Sodium (Na)	≤ 300 ppb	< 5 ppb
Trace Impurities – Tin (Sn)	≤ 100 ppb	< 10 ppb
Trace Impurities – Titanium (Ti)	≤ 100.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 400.0 ppb	319.8 ppb

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Ethylene Glycol
CMOS



Material No.: 9346-05
Batch No.: 2212761013

Test	Specification	Result
Particle Count – 0.5 µm and greater	≤ 200 par/ml	3 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	2 par/ml

For Microelectronic Use

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

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

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