



Material No.: 5370-05 Batch No.: 0000083715 Manufactured Date: 2014/06/26

Retest Date: 2019/06/25

Certificate of Analysis

Test	Specification	Result
Assay (CH₃OH) (by GC)	>= 99.9 %	100.0
Color (APHA)	<= 10	5
Acidity (μeq/g)	<= 0.3	0.2
Alkalinity (µeq/g)	<= 0.1	< 0.1
Residue after Evaporation	<= 5 ppm	< 1
Water (H2O)(by Karl Fischer titrn)	<= 0.05 %	0.01
Solubility in H₂O	Passes Test	PT
Arsenic and Antimony (as As)	<= 10 ppb	< 10
Chloride (Cl)	<= 0.2 ppm	< 0.1
Heavy Metals (as Pb)	<= 100 ppb	< 100
Phosphate (PO ₄)	<= 0.3 ppm	< 0.3
Trace Impurities – Aluminum (Al)	<= 50.0 ppb	< 5.0
Trace Impurities – Barium (Ba)	<= 20.0 ppb	< 1.0
Trace Impurities – Boron (B)	<= 10.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	<= 20.0 ppb	< 1.0
Trace Impurities – Calcium (Ca)	<= 50.0 ppb	3.9
Trace Impurities – Chromium (Cr)	<= 20.0 ppb	< 1.0
Trace Impurities - Cobalt (Co)	<= 20.0 ppb	< 1.0
Trace Impurities – Copper (Cu)	<= 10.0 ppb	2.2
Trace Impurities – Gallium (Ga)	<= 50.0 ppb	< 1.0
Trace Impurities – Germanium (Ge)	<= 50.0 ppb	< 10.0
Trace Impurities – Gold (Au)	<= 20.0 ppb	< 5.0
Trace Impurities – Iron (Fe)	<= 50.0 ppb	11.8
Trace Impurities - Lead (Pb)	<= 50.0 ppb	< 10.0

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Trace Impurities – Lithium (Li)	<= 50.0 ppb	< 1.0
Trace Impurities – Magnesium (Mg)	<= 50.0 ppb	< 1.0
Trace Impurities – Manganese (Mn)	<= 10.0 ppb	< 1.0
Trace Impurities – Nickel (Ni)	<= 10.0 ppb	< 5.0
Trace Impurities – Potassium (K)	<= 50.0 ppb	< 10.0
Trace Impurities – Silicon (Si)	<= 50.0 ppb	< 10.0
Trace Impurities – Silver (Ag)	<= 20.0 ppb	< 1.0
Trace Impurities – Sodium (Na)	<= 50.0 ppb	< 5.0
Trace Impurities – Strontium (Sr)	<= 10.0 ppb	< 1.0
Trace Impurities – Tin (Sn)	<= 50.0 ppb	< 10.0
Frace Impurities – Titanium (Ti)	<= 20.0 ppb	< 1.0
Trace Impurities – Zinc (Zn)	<= 50.0 ppb	< 1.0
Particle Count – 0.5 µm and greater	<= 50 par/ml	10
Particle Count – 1.0 µm and greater	<= 8 par/ml	5

For Microelectronic Use

Reported value is the average of all samples counted for this lot number, with no individual sample value exceeding the specification.

Country of Origin: US

Packaging Site: Paris Mfg Ctr & DC



Phillipsburg, NJ 9001:2008, 14001:2004 Paris, KY 9001:2008 Mexico City, Mexico 9001:2008 Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003 Gliwice, Poland 9001:2008, 17025:2005 Selangor, Malaysia 9001:2008 Dehradun, India, 9001:2008, 14001:2004, 13485:2003 Mumbai, India, 9001:2008, 17025:2005

Panoli, India 9001:2008

My M Sac Richard M Siberski

Vice President Global Quality