



Material No.: 5356-05 Batch No.: 0000011213

Manufactured Date: 2012/07/27

Retest Date: 2017/07/26

## Certificate of Analysis

Test	Specification	Result
Assay ((CH3)2CO) (by GC, corrected for water)	>= 99.5 %	99.8
Color (APHA)	<= 10	5
Residue after Evaporation	<= 5 ppm	< 1
Acidity (µeq/g)	<= 0.3	0.3
Alkalinity (µeq/g)	<= 0.5	< 0.1
Water (H <sub>2</sub> O)	<= 0.5 %	0.2
Solubility in H₂O	Passes Test	PT
Chloride (Cl)	<= 0.2 ppm	0.1
Phosphate (PO <sub>4</sub> )	<= 0.05 ppm	< 0.05
Trace Impurities – Aluminum (Al)	<= 50.0 ppb	< 5.0
Arsenic and Antimony (as As)	<= 5 ppb	< 5
Trace Impurities – Barium (Ba)	<= 20.0 ppb	< 1.0
Trace Impurities – Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities - Calcium (Ca)	<= 25.0 ppb	2.7
Trace Impurities - Chromium (Cr)	<= 20.0 ppb	< 1.0
Trace Impurities - Copper (Cu)	<= 10.0 ppb	< 1.0
Trace Impurities - Gold (Au)	<= 20.0 ppb	< 5.0
Trace Impurities – Iron (Fe)	<= 20.0 ppb	< 1.0
Trace Impurities – Lead (Pb)	<= 20.0 ppb	< 10.0
Trace Impurities – Lithium (Li)	<= 50.0 ppb	< 1.0
Trace Impurities – Magnesium (Mg)	<= 20.0 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

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Test	Specification	Result
Trace Impurities – Sodium (Na)	<= 50.0 ppb	< 5.0
Trace Impurities - Tin (Sn)	<= 50.0 ppb	< 10.0
Trace Impurities - Titanium (Ti)	<= 20.0 ppb	< 1.0
Trace Impurities - Zinc (Zn)	<= 50.0 ppb	< 1.0
Particle Count - 0.5 µm and greater	<= 60 par/ml	13
Particle Count – 1.0 µm and greater	<= 8 par/ml	4

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 Selangor, Malaysia 9001.2008 Panoli, India 9001.2008 Gliwice, Poland 9001.2008,17025.2005

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