



Material No.: 9005-68 Batch No.: 0000089497 Manufactured Date: 2014/09/03

Retest Date: 2019/09/02

Certificate of Analysis

Test	Specification	Result
Assay ((CH3)2CO) (by GC, corrected for water)	>= 99.5 %	99.6
Color (APHA)	<= 10	5
Residue after Evaporation	<= 5 ppm	< 1
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.5	0.1
Water (H ₂ O)	<= 0.5 %	0.2
Solubility in H ₂ O	Passes Test	PT
Chloride (Cl)	<= 0.2 ppm	0.2
Phosphate (PO4)	<= 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 – Beryllium (Be)	<= 10.0 ppb	< 1.0
Trace Impurities – Bismuth (Bi)	<= 20.0 ppb	< 10.0
Trace Impurities – Boron (B)	<= 10.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	<= 10.0 ppb	< 1.0
Trace Impurities – Calcium (Ca)	<= 25.0 ppb	< 1.0
Trace Impurities – Chromium (Cr)	<= 10.0 ppb	< 1.0
Trace Impurities - Cobalt (Co)	<= 10.0 ppb	< 1.0
Trace Impurities – Copper (Cu)	<= 10.0 ppb	< 1.0
Trace Impurities – Gallium (Ga)	<= 10.0 ppb	< 1.0
Trace Impurities – Germanium (Ge)	<= 10.0 ppb	< 10.0
Trace Impurities – Gold (Au)	<= 20.0 ppb	< 5.0
Trace Impurities – Iron (Fe)	<= 20.0 ppb	< 1.0

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Trace Impurities – Lead (Pb)	<= 10.0 ppb	< 10.0
Trace Impurities - Lithium (Li)	<= 10.0 ppb	< 1.0
Trace Impurities – Magnesium (Mg)	<= 20.0 ppb	< 1.0
Trace Impurities - Manganese (Mn)	<= 10.0 ppb	< 1.0
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 10.0 ppb	< 5.0
Trace Impurities - Niobium (Nb)	<= 50.0 ppb	< 1.0
Trace Impurities – Potassium (K)	<= 10.0 ppb	< 10.0
Trace Impurities - Silicon (Si)	<= 50.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 10.0 ppb	< 1.0
Trace Impurities - Sodium (Na)	<= 10.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 10.0 ppb	< 1.0
Trace Impurities - Tantalum (Ta)	<= 50.0 ppb	< 5.0
Trace Impurities - Thallium (TI)	<= 10.0 ppb	< 5.0
Trace Impurities - Tin (Sn)	<= 20.0 ppb	< 10.0
Trace Impurities - Titanium (Ti)	<= 10.0 ppb	< 1.0
Trace Impurities - Vanadium (V)	<= 10.0 ppb	< 1.0
Trace Impurities - Zinc (Zn)	<= 20.0 ppb	< 1.0
Trace Impurities - Zirconium (Zr)	<= 10.0 ppb	< 1.0
Particle Count - 0.5 µm and greater (Rion KS42AF)	<= 100 par/ml	6
Particle Count – 1.0 µm and greater (Rion KS42AF)	<= 8 par/ml	3

For Microelectronic Use

Country of Origin: US

Paris Mfg Ctr & DC Packaging Site:



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

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