

Material No.: 9005-68 Batch No.: 0000205821

Manufactured Date: 2018/07/17 Retest Date: 2023/07/16

Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.5 %	99.7
Color (APHA)	<= 10	5
Residue after Evaporation	<= 5 ppm	< 1
Titrable Acid (µeq/g)	<= 0.3	0.1
Titrable Base (µeq/g)	<= 0.5	< 0.1
Water (H ₂ O)	<= 0.5 %	0.1
Solubility in H₂O	Passes Test	PT
Chloride (Cl)	<= 0.2 ppm	< 0.2
Phosphate (PO ₄)	<= 0.05 ppm	< 0.05
Trace Impurities - Aluminum (AI)	<= 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	6.2
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

Material No.: 9005-68 Batch No.: 0000205821

Test	Specification	Result
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	1.4
Trace Impurities - Zirconium (Zr)	<= 10.0 ppb	< 1.0
Particle Count - 0.5 µm and greater (Rion KS42AF)	<= 100 par/ml	13
Particle Count – 1.0 µm and greater (Rion KS42AF)	<= 8 par/ml	6

For Microelectronic Use

Country of Origin: US

Packaging Site: Paris Mfg Ctr & DC



Phillipsburg, NJ 9001:2015, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India 9001:2015, 14001:2015, 13485:2016
Mumbai, India 9001:2015
Panoli, India 9001:2015

