



Material No.: 5370-05 Batch No.: 0000141961 Manufactured Date: 2016/03/25

Retest Date: 2021/03/24

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 H ₂ O	Passes Test	PT
Arsenic and Antimony (as As)	<= 10 ppb	< 10
Chloride (Cl)	<= 0.2 ppm	< 0.1
Heavy Metals (as Pb)	<= 100 ppb	< 50
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	10.9
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	< 1.0
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	8.3
Trace Impurities - Lead (Pb)	<= 50.0 ppb	< 10.0

Material No.: 5370-05 Batch No.: 0000141961

Test	Specification	Result
Trace Impurities – Lithium (Li)	<= 50.0 ppb	< 1.0
Trace Impurities – Magnesium (Mg)	<= 50.0 ppb	2.5
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	14.8
Trace Impurities – Strontium (Sr)	<= 10.0 ppb	< 1.0
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	12.0
Particle Count - 0.5 µm and greater	<= 50 par/ml	14
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, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2008, 17025:2005

Panoli, India 9001:2008

Jamie Ethier
Vice President Global Quality