Acetic Acid, Glacial
CMOS

Material No.: 9503-03
Batch No.: 0000083314
Manufactured Date: 2014/06/23
Retest Date: 2019/06/22

Certificate of Analysis

Test	Specification	Result
Assay (CH_3COOH) (by freezing point)	>= 99.7 %	100.0
Color (APHA)	<= 10	6
Acetic Anhydride ($(CH_3CO)_2O$)	<= 0.01 %	< 0.01
Acetaldehyde	<= 0.05 %	< 0.05
Residue after Evaporation	<= 4 ppm	4
Solubility in H_2O	Passes Test	PT
Specific Gravity at 20°/20°C	>= 1.048	1.048
Substances Reducing Dichromate	Passes Test	PT
Substances Reducing Permanganate	Passes Test	PT
Chloride (Cl)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.5 ppm	< 0.3
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Trace Impurities - Aluminum (Al)	<= 50.0 ppb	7.9
Arsenic and Antimony (as As)	<= 5 ppb	< 5
Trace Impurities - Barium (Ba)	<= 10.0 ppb	< 1.0
Trace Impurities - Beryllium (Be)	<= 10.0 ppb	< 1.0
Trace Impurities - Bismuth (Bi)	<= 50.0 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)	<= 200.0 ppb	3.4
Trace Impurities - Chromium (Cr)	<= 30.0 ppb	< 1.0
Trace Impurities - Cobalt (Co)	<= 10.0 ppb	< 1.0
Trace Impurities - Copper (Cu)	<= 20.0 ppb	< 1.0
Trace Impurities - Gallium (Ga)	<= 10.0 ppb	< 1.0

Test	Specification	Result
Trace Impurities – Germanium (Ge)	<= 10.0 ppb	< 10.0
Trace Impurities – Gold (Au)	<= 10.0 ppb	< 5.0
Heavy Metals (as Pb)	<= 300 ppb	< 300
Trace Impurities – Iron (Fe)	<= 100.0 ppb	1.1
Trace Impurities – Lead (Pb)	<= 100.0 ppb	< 10.0
Trace Impurities – Lithium (Li)	<= 10.0 ppb	< 1.0
Trace Impurities – Magnesium (Mg)	<= 50.0 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)	<= 25.0 ppb	< 5.0
Trace Impurities – Niobium (Nb)	<= 10.0 ppb	< 1.0
Trace Impurities – Potassium (K)	<= 100.0 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)	<= 100.0 ppb	4.3
Trace Impurities – Strontium (Sr)	<= 10.0 ppb	< 1.0
Trace Impurities – Tantalum (Ta)	<= 10.0 ppb	< 5.0
Trace Impurities – Thallium (Tl)	<= 50.0 ppb	< 5.0
Trace Impurities – Tin (Sn)	<= 50.0 ppb	< 10.0
Trace Impurities – Titanium (Ti)	<= 100.0 ppb	< 1.0
Trace Impurities – Vanadium (V)	<= 10.0 ppb	< 1.0
Trace Impurities – Zinc (Zn)	<= 50.0 ppb	< 1.0
Trace Impurities – Zirconium (Zr)	<= 10.0 ppb	< 1.0
Particle Count – 1.0 µm and greater	<= 10 par/ml	1

For Microelectronic Use
For additional information, go to www.askavantor.com. Search keywords "freezing" and product name.

Storage Conditions:	IMPORTANT: Material will freeze if stored below 17 °C (63°F).
Country of Origin:	US
Packaging Site:	Paris Mfg Ctr & DC

ISO

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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