2-Propanol VLSI

(iso-propyl alcohol)





Material No.: 5373-05 Batch No.: 0000054580 Manufactured Date: 2013/07/22 Retest Date: 2018/07/21

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ CHOHCH ₃)	>= 99.5 %	99.9
Color (APHA)	<= 10	5
Residue after Evaporation	<= 4 ppm	< 1
Solubility in H2O	Passes Test	РТ
Vater (H2O)(by Karl Fischer titrn)	<= 0.05 %	0.04
Acidity (µeq/g)	<= 0.2	0.1
Alkalinity (µeq/g)	<= 0.1	< 0.1
Chloride (Cl)	<= 0.1 ppm	< 0.1
Phosphate (PO4)	<= 0.3 ppm	< 0.3
Frace Impurities – Aluminum (Al)	<= 50.0 ppb	< 5.0
Arsenic and Antimony (as As)	<= 10 ppb	< 10
race Impurities – Barium (Ba)	<= 20.0 ppb	< 1.0
race Impurities – Boron (B)	<= 10.0 ppb	< 5.0
race Impurities – Cadmium (Cd)	<= 20.0 ppb	< 1.0
Frace Impurities – Calcium (Ca)	<= 50.0 ppb	2.3
race Impurities – Chromium (Cr)	<= 20.0 ppb	< 1.0
Frace Impurities – Cobalt (Co)	<= 20.0 ppb	< 1.0
Frace Impurities – Copper (Cu)	<= 10.0 ppb	< 1.0
race Impurities – Gallium (Ga)	<= 50.0 ppb	< 1.0
race Impurities – Germanium (Ge)	<= 50.0 ppb	< 10.0
race Impurities – Gold (Au)	<= 20.0 ppb	< 5.0
leavy Metals (as Pb)	<= 200 ppb	< 100
race Impurities – Iron (Fe)	<= 50.0 ppb	4.0
race Impurities – Lead (Pb)	<= 20.0 ppb	< 10.0

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600 Avantor ™ Performance Materials Inc.

3477 Corporate Parkway. Suite #200. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

Test	Specification	Result
Trace Impurities – Lithium (Li)	<= 50.0 ppb	< 1.0
Trace Impurities - Magnesium (Mg)	<= 20.0 ppb	< 1.0
Trace Impurities - Manganese (Mn)	<= 20.0 ppb	< 1.0
Trace Impurities – Nickel (Ni)	<= 10.0 ppb	< 5.0
Trace Impurities – Potassium (K)	<= 100.0 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)	<= 100.0 ppb	6.0
Trace Impurities – Strontium (Sr)	<= 20.0 ppb	< 1.0
Trace Impurities - Tin (Sn)	<= 100.0 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	<= 100 par/ml	< 100
Particle Count – 1.0 µm and greater	<= 8 par/ml	< 8

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



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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Richard M Siberski Global Director of Quality Assurance

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