2-Propanol VLSI

(iso-propyl alcohol)





Material No.: 5373-05 Batch No.: 0000018815 Manufactured Date: 2012/09/21 Retest Date: 2017/09/20

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ CHOHCH ₃)	>= 99.5 %	100.0
Color (APHA)	<= 10	5
Residue after Evaporation	<= 4 ppm	< 1
Solubility in H2O	Passes Test	РТ
Vater (H2O)(by Karl Fischer titrn)	<= 0.05 %	0.02
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
race Impurities – Aluminum (Al)	<= 50.0 ppb	< 5.0
Arsenic and Antimony (as As)	<= 10 ppb	< 10
Frace Impurities – Barium (Ba)	<= 20.0 ppb	1.6
race Impurities – Boron (B)	<= 10.0 ppb	< 5.0
race Impurities – Cadmium (Cd)	<= 20.0 ppb	< 1.0
race Impurities – Calcium (Ca)	<= 50.0 ppb	27.7
Frace 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
Frace Impurities – Gallium (Ga)	<= 50.0 ppb	< 1.0
Frace Impurities – Germanium (Ge)	<= 50.0 ppb	< 10.0
race Impurities – Gold (Au)	<= 20.0 ppb	< 5.0
leavy Metals (as Pb)	<= 200 ppb	< 100
Frace Impurities – Iron (Fe)	<= 50.0 ppb	2.6
Frace 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
Frace Impurities – Lithium (Li)	<= 50.0 ppb	< 1.0
Frace Impurities – Magnesium (Mg)	<= 20.0 ppb	2.0
Frace Impurities – Manganese (Mn)	<= 20.0 ppb	< 1.0
Frace Impurities – Nickel (Ni)	<= 10.0 ppb	< 5.0
Frace Impurities – Potassium (K)	<= 100.0 ppb	< 10.0
Frace Impurities – Silicon (Si)	<= 50.0 ppb	< 10.0
Frace Impurities – Silver (Ag)	<= 20.0 ppb	< 1.0
race Impurities – Sodium (Na)	<= 100.0 ppb	5.2
Frace Impurities – Strontium (Sr)	<= 20.0 ppb	< 1.0
race Impurities – Tin (Sn)	<= 100.0 ppb	< 10.0
race Impurities – Titanium (Ti)	<= 20.0 ppb	1.0
race Impurities – Zinc (Zn)	<= 50.0 ppb	1.0
article Count - 0.5 µm and greater	<= 100 par/ml	24
article 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 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, 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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