

2-Propanol  
CMOS

(iso-propyl alcohol)



Material No.: 9059-08  
Batch No.: 0000062865  
Manufactured Date: 2013/10/23  
Retest Date: 2018/10/22

## Certificate of Analysis

Test	Specification	Result
Assay (CH <sub>3</sub> CHOHCH <sub>3</sub> )	>= 99.5 %	100.0
Color (APHA)	<= 10	5
Residue after Evaporation	<= 4 ppm	1
Solubility in H <sub>2</sub> O	Passes Test	PT
Water (H <sub>2</sub> O)(by Karl Fischer titrn)	<= 0.05 %	0.03
Acidity (µeq/g)	<= 0.2	0.1
Alkalinity (µeq/g)	<= 0.1	< 0.1
Chloride (Cl)	<= 0.1 ppm	< 0.1
Phosphate (PO <sub>4</sub> )	<= 0.3 ppm	< 0.3
Trace Impurities – Aluminum (Al)	<= 50.0 ppb	< 5.0
Arsenic and Antimony (as As)	<= 10 ppb	< 10
Trace Impurities – Barium (Ba)	<= 20.0 ppb	< 1.0
Trace Impurities – Beryllium (Be)	<= 100.0 ppb	< 1.0
Trace Impurities – Bismuth (Bi)	<= 100.0 ppb	< 10.0
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	< 1.0
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
Heavy Metals (as Pb)	<= 200 ppb	< 100

Test	Specification	Result
Trace Impurities – Iron (Fe)	<= 50.0 ppb	< 1.0
Trace Impurities – Lead (Pb)	<= 20.0 ppb	< 10.0
Trace Impurities – Lithium (Li)	<= 50.0 ppb	< 1.0
Trace Impurities – Magnesium (Mg)	<= 20.0 ppb	< 1.0
Trace Impurities – Manganese (Mn)	<= 15.0 ppb	< 1.0
Trace Impurities – Molybdenum (Mo)	<= 100.0 ppb	< 5.0
Trace Impurities – Nickel (Ni)	<= 10.0 ppb	< 5.0
Trace Impurities – Niobium (Nb)	<= 100.0 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)	<= 20.0 ppb	< 1.0
Trace Impurities – Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities – Strontium (Sr)	<= 20.0 ppb	< 1.0
Trace Impurities – Tantalum (Ta)	<= 100.0 ppb	< 5.0
Trace Impurities – Thallium (Tl)	<= 10.0 ppb	< 5.0
Trace Impurities – Tin (Sn)	<= 100.0 ppb	< 10.0
Trace Impurities – Titanium (Ti)	<= 20.0 ppb	< 1.0
Trace Impurities – Vanadium (V)	<= 100.0 ppb	< 1.0
Trace Impurities – Zinc (Zn)	<= 50.0 ppb	< 1.0
Trace Impurities – Zirconium (Zr)	<= 100.0 ppb	< 1.0
Particle Count at point of fill – 0.5 µm and greater (Rion KS42AF)	<= 150 par/ml	8
Particle Count at point of fill – 1.0 µm and greater (Rion KS42AF)	<= 25 par/ml	4

For Microelectronic Use

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  
 Dehradun, India, 9001:2008, 14001:2004, 13485:2003  
 Mumbai, India, 9001:2008, 17025:2005  
 Panoli, India 9001:2008



Richard M Siberski  
 Vice President Global Quality

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