

2-Propanol  
CMOS

(iso-propyl alcohol)



Material No.: 9079-05  
Batch No.: 0000085832  
Manufactured Date: 2014/07/21  
Retest Date: 2019/07/20


## Certificate of Analysis

Test	Specification	Result
Assay ( $\text{CH}_3\text{CHOHCH}_3$ )	$\geq 99.5 \%$	99.9
Color (APHA)	$\leq 10$	5
Residue after Evaporation	$\leq 4 \text{ ppm}$	$< 1$
Solubility in $\text{H}_2\text{O}$	Passes Test	PT
Water ( $\text{H}_2\text{O}$ )(by Karl Fischer titrn)	$\leq 0.05 \%$	0.02
Acidity ( $\mu\text{eq/g}$ )	$\leq 0.2$	0.1
Alkalinity ( $\mu\text{eq/g}$ )	$\leq 0.1$	$< 0.1$
Chloride (Cl)	$\leq 0.1 \text{ ppm}$	$< 0.1$
Phosphate ( $\text{PO}_4$ )	$\leq 0.3 \text{ ppm}$	$< 0.3$
Trace Impurities – Aluminum (Al)	$\leq 50.0 \text{ ppb}$	$< 5.0$
Arsenic and Antimony (as As)	$\leq 10 \text{ ppb}$	$< 10$
Trace Impurities – Barium (Ba)	$\leq 20.0 \text{ ppb}$	$< 1.0$
Trace Impurities – Beryllium (Be)	$\leq 100.0 \text{ ppb}$	$< 1.0$
Trace Impurities – Bismuth (Bi)	$\leq 100.0 \text{ ppb}$	$< 10.0$
Trace Impurities – Boron (B)	$\leq 10.0 \text{ ppb}$	$< 5.0$
Trace Impurities – Cadmium (Cd)	$\leq 20.0 \text{ ppb}$	$< 1.0$
Trace Impurities – Calcium (Ca)	$\leq 50.0 \text{ ppb}$	2.9
Trace Impurities – Chromium (Cr)	$\leq 20.0 \text{ ppb}$	$< 1.0$
Trace Impurities – Cobalt (Co)	$\leq 20.0 \text{ ppb}$	$< 1.0$
Trace Impurities – Copper (Cu)	$\leq 10.0 \text{ ppb}$	$< 1.0$
Trace Impurities – Gallium (Ga)	$\leq 50.0 \text{ ppb}$	$< 1.0$
Trace Impurities – Germanium (Ge)	$\leq 50.0 \text{ ppb}$	$< 10.0$
Trace Impurities – Gold (Au)	$\leq 20.0 \text{ ppb}$	$< 5.0$
Heavy Metals (as Pb)	$\leq 200 \text{ ppb}$	$< 100$


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 – 0.2 µm and greater	<= 5000 par/ml	531
Particle Count – 0.3 µm and greater	<= 5000 par/ml	67
Particle Count – 0.5 µm and greater	<= 50 par/ml	6
Particle Count – 1.0 µm and greater	<= 8 par/ml	1

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



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