

2-Propanol  
CMOS  
(iso-propyl alcohol)



Material No.: 9079-05  
Batch No.: 22D1861047  
Manufactured Date: 2022-04-12  
Retest Date: 2027-04-11  
Revision No.: 0

## 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 ppm
Solubility in H <sub>2</sub> O	Passes Test	Passes Test
Water (H <sub>2</sub> O)(by Karl Fischer titrn)	≤ 0.05 %	0.02 %
Acidity (μeq/g)	≤ 0.2	0.1
Alkalinity (μeq/g)	≤ 0.1	< 0.1
Chloride (Cl)	≤ 0.2 ppm	< 0.2 ppm
Phosphate (PO <sub>4</sub> )	≤ 0.3 ppm	< 0.3 ppm
Trace Impurities – Aluminum (Al)	≤ 50.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Barium (Ba)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 100.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	1.5 ppb
Trace Impurities – Chromium (Cr)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Cobalt (Co)	≤ 20 ppb	< 1 ppb
Trace Impurities – Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Gallium (Ga)	≤ 50 ppb	< 1 ppb
Trace Impurities – Germanium (Ge)	≤ 50.0 ppb	< 10.0 ppb
Trace Impurities – Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 200.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Lithium (Li)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Magnesium (Mg)	≤ 20 ppb	< 1 ppb

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Trace Impurities – Manganese (Mn)	≤ 15.0 ppb	< 1.0 ppb
Trace Impurities – Molybdenum (Mo)	≤ 100.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Niobium (Nb)	≤ 100.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 100 ppb	< 10 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 100.0 ppb	5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 100 ppb	< 10 ppb
Trace Impurities – Titanium (Ti)	≤ 20 ppb	< 1 ppb
Trace Impurities – Vanadium (V)	≤ 100.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 50 ppb	< 1 ppb
Trace Impurities – Zirconium (Zr)	≤ 100.0 ppb	< 1.0 ppb
Particle Count – 0.2 µm and greater	≤ 5000 par/ml	15 par/ml
Particle Count – 0.3 µm and greater	≤ 5000 par/ml	1 par/ml
Particle Count – 0.5 µm and greater	≤ 50 par/ml	2 par/ml
Particle Count – 1.0 µm and greater	≤ 8 par/ml	1 par/ml

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For Microelectronic Use

Country of Origin: USA  
Packaging Site: Paris Mfg Ctr & DC

Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700  
Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700