

2-Propanol  
CMOS  
(iso-propyl alcohol)



Material No.: 9079-05  
Batch No.: 23H1761030  
Manufactured Date: 2023-08-14  
Retest Date: 2028-08-12  
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    | 7.0 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      | 2 ppb       |
| Trace Impurities – Zirconium (Zr)   | ≤ 100.0 ppb   | < 1.0 ppb   |
| Particle Count – 0.2 µm and greater | ≤ 5000 par/ml | 1677 par/ml |
| Particle Count – 0.3 µm and greater | ≤ 5000 par/ml | 270 par/ml  |
| Particle Count – 0.5 µm and greater | ≤ 50 par/ml   | 14 par/ml   |
| Particle Count – 1.0 µm and greater | ≤ 8 par/ml    | 2 par/ml    |

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For Microelectronic Use

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

Michelle Bales  
Sr. Manager, Quality Assurance

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