2-Propanol CMOS

(iso-propyl alcohol)





Material No.: 9059-08 Batch No.: 0000147891 Manufactured Date: 2016/06/20 Retest Date: 2021/06/19

## Certificate of Analysis

| Test                               | Specification | Result |
|------------------------------------|---------------|--------|
| Assay (CH3CHOHCH3)                 | >= 99.5 %     | 100.0  |
| Color (APHA)                       | <= 10         | 5      |
| Residue after Evaporation          | <= 4 ppm      | < 1    |
| Solubility in H2O                  | Passes Test   | РТ     |
| Water (H2O)(by Karl Fischer titrn) | <= 0.05 %     | 0.01   |
| 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  |
| Trace Impurities – Aluminum (Al)   | <= 50.0 ppb   | < 5.0  |
| Arsenic and Antimony (as As)       | <= 10 ppb     | < 10   |
| Frace Impurities – Barium (Ba)     | <= 20.0 ppb   | < 1.0  |
| Frace 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   | 1.1    |
| 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  |

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 |
|---|---------------|--------|
| 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 (TI)                                      | <= 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<br>(Rion KS42AF) | <= 150 par/ml | 5      |
| Particle Count at point of fill – 1.0 μm and greater<br>(Rion KS42AF) | <= 25 par/ml  | 2      |

For Microelectronic Use

Country of Origin:USPackaging Site:Paris Mfg Ctr & DC



Phillipsburg, NJ 9001:2008, 14001:2004, FSSC 22000 Paris, KY 9001:2008 Mexico City, Mexico 9001:2008 Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003 Gliwice, Poland 9001:2008, 13485:2012 Selangor, Malaysia 9001:2008 Dehradun, India, 9001:2008, 14001:2004, 13485:2003 Mumbai, India, 9001:2008 Panoli, India 9001:2008

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