

2-Propanol
CMOS

(iso-propyl alcohol)



Material No.: 9079-05
Batch No.: 0000040975
Manufactured Date: 2013/03/19
Retest Date: 2018/03/18

Certificate of Analysis

| Test | Specification | Result |
|---|---------------|--------|
| Assay (CH ₃ CHOHCH ₃) | >= 99.5 % | 100.0 |
| Color (APHA) | <= 10 | 5 |
| Residue after Evaporation | <= 4 ppm | <1 |
| Solubility in H ₂ O | Passes Test | PT |
| Water (H ₂ 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) | <= 0.1 ppm | <0.1 |
| Phosphate (PO ₄) | <= 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 | 1.8 |
| 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 – 0.2 µm and greater | <= 5000 par/ml | 77 |
| Particle Count – 0.3 µm and greater | <= 5000 par/ml | 9 |
| Particle Count – 0.5 µm and greater | <= 50 par/ml | 2 |
| 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



Richard M Siberski
 Global Director of Quality Assurance

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