

Certificate of Analysis

| Test | Specification | Result |
|---|---------------|-------------|
| Assay (CH ₃ OH) (by GC) | ≥ 99.9 % | 100.0 % |
| Color (APHA) | ≤ 10 | < 5 |
| Acidity (µeq/g) | ≤ 0.3 | 0.2 |
| Alkalinity (µeq/g) | ≤ 0.1 | < 0.1 |
| Residue after Evaporation | ≤ 5 ppm | < 1 ppm |
| Water (H ₂ O)(by Karl Fischer titrn) | ≤ 0.05 % | 0.01 % |
| Solubility in H ₂ O | Passes Test | Passes Test |
| Arsenic and Antimony (as As) | ≤ 10.0 ppb | < 10.0 ppb |
| Chloride (Cl) | ≤ 0.2 ppm | < 0.2 ppm |
| Heavy Metals (as Pb) | ≤ 100.0 ppb | < 100.0 ppb |
| Phosphate (PO ₄) | ≤ 0.3 ppm | < 0.3 ppm |
| Trace Impurities – Aluminum (Al) | ≤ 50.0 ppb | < 5.0 ppb |
| Trace Impurities – Barium (Ba) | ≤ 20.0 ppb | < 1.0 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 | 3.3 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 | 1.1 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 |
| Trace Impurities – Iron (Fe) | ≤ 50.0 ppb | 3.8 ppb |
| Trace Impurities – Lead (Pb) | ≤ 50 ppb | < 10 ppb |
| Trace Impurities – Lithium (Li) | ≤ 50.0 ppb | < 1.0 ppb |
| Trace Impurities – Magnesium (Mg) | ≤ 50.0 ppb | < 1.0 ppb |
| Trace Impurities – Manganese (Mn) | ≤ 10.0 ppb | < 1.0 ppb |
| Trace Impurities – Nickel (Ni) | ≤ 10.0 ppb | < 5.0 ppb |

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Methanol
VLSI



Material No.: 5370-05
Batch No.: 23B1461021

| Test | Specification | Result |
|-------------------------------------|---------------|-----------|
| Trace Impurities – Potassium (K) | ≤ 50 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) | ≤ 50.0 ppb | < 5.0 ppb |
| Trace Impurities – Strontium (Sr) | ≤ 10.0 ppb | < 1.0 ppb |
| Trace Impurities – Tin (Sn) | ≤ 50 ppb | < 10 ppb |
| Trace Impurities – Titanium (Ti) | ≤ 20 ppb | < 1 ppb |
| Trace Impurities – Zinc (Zn) | ≤ 50 ppb | < 1 ppb |
| Particle Count – 0.5 µm and greater | ≤ 50 par/ml | 4 par/ml |
| Particle Count – 1.0 µm and greater | ≤ 8 par/ml | 2 par/ml |

For Microelectronic Use

Reported value is the average of all samples counted for this lot number, with no individual sample value exceeding the specification.

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