

NMP (1-Methyl-2-pyrrolidinone)  
ALEG®

Positive Photoresist Stripper



Material No.: 6397-05  
Batch No.: 0000061671  
Manufactured Date: 2013/10/16  
Retest Date: 2018/10/15

## Certificate of Analysis

| Test                                              | Specification | Result |
|---------------------------------------------------|---------------|--------|
| Assay (C <sub>5</sub> H <sub>9</sub> NO)          | >= 99.5 %     | 99.9   |
| Color (APHA)                                      | <= 20         | <5     |
| Water (H <sub>2</sub> O)(by Karl Fischer titrn)   | <= 0.05 %     | < 0.01 |
| Free Amines (as CH <sub>3</sub> NH <sub>2</sub> ) | <= 50 ppm     | 11     |
| Chloride (Cl)                                     | <= 0.5 ppm    | < 0.5  |
| Phosphate (PO <sub>4</sub> )                      | <= 1 ppm      | < 1    |
| Trace Impurities – Aluminum (Al)                  | <= 100.0 ppb  | 0.7    |
| Arsenic and Antimony (as As)                      | <= 100 ppb    | < 10   |
| Trace Impurities – Barium (Ba)                    | <= 100.0 ppb  | < 0.5  |
| Trace Impurities – Boron (B)                      | <= 100.0 ppb  | < 2.0  |
| Trace Impurities – Calcium (Ca)                   | <= 300.0 ppb  | 5.0    |
| Trace Impurities – Chromium (Cr)                  | <= 100.0 ppb  | < 1.0  |
| Trace Impurities – Cobalt (Co)                    | <= 100.0 ppb  | < 1.0  |
| Trace Impurities – Copper (Cu)                    | <= 100.0 ppb  | < 0.5  |
| Trace Impurities – Gold (Au)                      | <= 100.0 ppb  | < 0.5  |
| Trace Impurities – Iron (Fe)                      | <= 100.0 ppb  | 4.0    |
| Trace Impurities – Lead (Pb)                      | <= 100.0 ppb  | < 3.0  |
| Trace Impurities – Lithium (Li)                   | <= 100.0 ppb  | < 0.5  |
| Trace Impurities – Magnesium (Mg)                 | <= 100.0 ppb  | < 0.5  |
| Trace Impurities – Manganese (Mn)                 | <= 100.0 ppb  | < 1.0  |
| Trace Impurities – Nickel (Ni)                    | <= 100.0 ppb  | < 1.0  |
| Trace Impurities – Potassium (K)                  | <= 100.0 ppb  | < 4.0  |
| Trace Impurities – Silver (Ag)                    | <= 100.0 ppb  | < 1.0  |
| Trace Impurities – Sodium (Na)                    | <= 300.0 ppb  | 2.0    |

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| Trace Impurities – Strontium (Sr)                 | <= 100.0 ppb  | < 0.5  |
| Trace Impurities – Tin (Sn)                       | <= 100.0 ppb  | < 2.0  |
| Trace Impurities – Titanium (Ti)                  | <= 100.0 ppb  | < 1.0  |
| Trace Impurities – Vanadium (V)                   | <= 100.0 ppb  | < 0.5  |
| Trace Impurities – Zinc (Zn)                      | <= 100.0 ppb  | < 1.0  |
| Particle Count – 1.0 µm and greater (Rion KS42AF) | <= 10 par/ml  | < 1    |

For Microelectronic Use

Country of Origin: US  
Packaging Site: Phillipsburg 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

A handwritten signature in white ink, appearing to read 'Richard M Siberski', is written over the blue background.

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  
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