



Product Data Sheet

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PRODUCT #: N8591

ADF-281

Aqueous Resist Stripper

DESCRIPTION: A specialized, fully aqueous photoresist stripper formulated to strip thicker resists, especially when used for tent and etch applications. *ADF-281* provides fast strip speeds and produces filterable particles, and contains coppers brightening and antitarnish agents for automatic optical inspection and better etching characteristics. For use in spray or soak applications.

BENEFITS:

- **Particularly suited for stripping thicker resists**
- **Reduced metals in spent solution for easier waste treatment**
- **Filterable particles for extended bath life**

SPECIFICATIONS:

Density:	1.03 gm/ml, 8.6 lbs./gal.
pH at 10% :	11.5
Flash Point (SCC):	> 210°F
VOC Content (EPA Method 24):	55%, 4.7 lbs./gal.
Appearance:	Clear colorless liquid
Shelf life:	Indefinite

INSTRUCTIONS:

Concentration:	10 - 15% spray or soak
Temperature:	120°-135°F

Replenishment: *ADF-281* can be replenished by monitoring the pH of the solution. At pH 11, add 20% of the original make up volume of concentrate. For example, for a 100 gallon sump at 10% original concentration, add 2 gallons of *ADF-281* concentrate. The solution should be considered spent when replenishments exceed the original makeup volume, or when resist re-deposits on boards. An alternate method of replenishment is to have a tank of solution at working concentration, and add it to the sump to maintain volume lost by evaporation and drag out.

Stripping speed and particle size will vary with type and thickness of photoresist, temperature, concentration, type of equipment and application. *Specific information on strip times, particle size, and capacity is available from Technical Service.*

Filtration is recommended to remove resist particles and extend bath life. In spray applications it may be necessary to add **ANTI-FOAM BB** at 0.1% by volume to eliminate excess foam.

Tanks or equipment can be constructed of stainless steel, PVC, or polypropylene. Heaters should be stainless steel or Teflon.

CAUTIONS: *ADF-281* is alkaline; contact with skin and eyes should be avoided. Goggles and gloves should be worn when handling this product. In case of contact with eyes, flush with water for at least 15 minutes and obtain medical assistance. For skin contact, rinse immediately with water, and wash with soap and water. Use in a well ventilated area.

DISPOSAL: *ADF-281* contains amine compounds which are metal complexing agents. Spent solutions should be segregated from waste streams being treated for heavy metals removal.

Dispose of treated material in accordance with all local, state and federal regulations.

ANALYSIS: **Equipment required:** 2 ml pipette
50 ml burette
250 ml flask or 250 ml beaker
pH meter (optional)

Reagents required: 0.1N Hydrochloric acid standard solution
Methyl Orange indicator solution

Procedure:

1. Pipette a 2 ml sample of the working solution into a 250 ml flask or beaker.
2. Add 50-100 ml distilled water. Mix.
3. Add 10-15 drops of methyl orange indicator solution.
4. Titrate with 0.1N hydrochloric acid until the color changes from yellow to red.

OR

Titrate to a pH end point of 4.0, using a pH meter. Record mls used.

Calculation: $\text{mls of HCl} \times \text{N of HCl} \times 4.76 = \text{Percent } \mathbf{ADF-281}$

This product should be used only for its intended purpose. The information stated above is based on our laboratory tests and experience, and is accurate to the best of our knowledge. Since actual use is beyond our control, the recommendations or suggestions are made without warranty, expressed or implied.