



## Product Data Sheet

Date: 01/04/06

Supersedes: 02/03/05

**PRODUCT #: N8623**

# *ADF-35*

Low VOC Innerlayer Resist Stripper

**DESCRIPTION:** Formulated to remove fully aqueous dry films and screen ink resists from inner layers in spray applications. *ADF-35* will produce large particles for easy filtration, with less dissolved resist for prolonged bath life. It contains antitarnish agents to maintain a bright uniform copper appearance. It has very low levels of ingredients classified as VOCs, and when used as directed is exempt from **SCAQMD** regulation.

**BENEFITS:**

- **Very low VOC content for reduced air emissions**
- **Filterable particles for extended bath life**
- **Antitarnish agents to maintain bright copper**
- **Economical cost per gallon**

**SPECIFICATIONS:**

<b>Density:</b>	1.13 gm/ml, 9.4 lbs./gal.
<b>pH at 15% :</b>	13.5
<b>Flash Point (TCC):</b>	None
<b>VOC Content (EPA Method 24):</b>	0.2 lbs./gal.

**INSTRUCTIONS:**

<b>Concentration:</b>	10-20% by volume
<b>Temperature:</b>	120°-140°F

Mix the concentrate at 15% by volume with water, and heat to operating temperature. Maintain the pH above 11.5 with additions of *ADF-35* concentrate. 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.

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

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

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

**CAUTIONS:** *ADF-35* 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. Refer to Material Safety Data Sheet for further information.

**DISPOSAL:** Spent solutions of **ADF-35** should be segregated into appropriate waste stream for metal removal.

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

**ANALYSIS:** **Equipment required:** 5 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, 0.1%

**Procedure:**

1. Pipette a 5 ml sample of the working solution into a 250 ml flask or beaker.
2. Add 50-100 ml distilled water and 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. Record mls used.

**OR**

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

**Calculation:** mls of HCl X N of HCl X 6.2 = Percent **ADF-35**

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.