

## **AP300 Adhesion Promoter** **Standard Operating Procedure**

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AP300 is an adhesion promoter for use with SU8 negative photoresist.

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### **1.0 Material Requirements:**

#### **1.1 Equipment needed for process:**

Spin station. Because this promoter is primarily used with SU-8 use the station and spinner bowl designated to “dirty” Polyimide process’.

Tweezers or vacuum wand.

Pipettes

Quartz curing boat.

Soft bake and hard bake ovens.

#### **1.2 Chemicals needed for process:**

SU8 photoresist.

Acetone for cleanup.

##### **1.2.1 Hazards associated with chemicals:**

Flammable Liquid (Isopropanol solution)

Acute signs / effects of overexposure:

Ingestion: Moderately toxic

Skin contact: May cause irritation

Inhalation: May be harmful if inhaled. High concentration has narcotic effect.

Eye contact: Causes eye irritation

Medical conditions

Aggravated: Persons with pre-existing skin disorders, eye problems or impaired respiratory function may be more susceptible to the effects of this substance.

Chronic effects of

Overexposure: Prolonged skin contact may cause mild irritation, drying, cracking or contact dermatitis

Other: NA

### **1.3 Engineering controls:**

The AP300 is to be used in the two spin coaters in the Silicon process bay. Must only be used in a well-ventilated spin coater or fume hood specified for solvent use.

### **1.4 Protective equipment needed:**

Well-ventilated hood.

Trionic: Latex gloves.

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### **2.0 Procedure:**

Since this adhesion promoter is to be used in conjunction with SU8 (see SU8 SOP) this procedure is to be used only in the manual spinner using the bowl used for polyimide.

Apply AP300 as you should HMDS. Using a pipette; extract the whole pipette volume of AP300. Apply to your wafer on the spin coater. Let stand for approximately 15 seconds. Spin as you would for your SU8.

Dispose of the pipette in the covered container labeled Solvent located next to the spin coater in the Silicon Bay.

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### **3.0 Storage:**

AP300 is a solvent based adhesion promoter and is highly flammable. As a solvent it should be kept tightly closed and stored in the resist cabinet at the end of the plasma bay.

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### **4.0 Waste Products:**

AP300 is a solvent-based chemical therefore it will be disposed of in the waste tank of the solvent bench in the Silicon Bay and aspirated (this organic waste is directed into a container behind the solvent bench and removed on a weekly basis). The pipettes used during spin coating will be disposed of in the covered trash container next to the spinner labeled Photoresist contaminated waste.

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### **5.0 Accident Procedures: (Found in the MSDS)**

- 5.1** Contact (include a subsection for each component chemical)
  - 5.1.1** Skin: In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes.
  - 5.1.2** Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.
  - 5.1.3** Inhalation: If inhaled, remove to fresh air, if not breathing give artificial respiration, preferably mouth-to-mouth. If breathing is difficult give oxygen.

- 5.1.4** Ingestion: If swallowed DO NOT induce vomiting; never give anything to an unconscious person. Alert SSEL staff and Lab manager immediately.
- 5.2** Spill: Wipe, soak up in a clean room wipe. Dispose of wipe in a waste container labeled solvent. Wear proper protective equipment as specified in section 1.4. Warn others of the spill. If you feel the spill is too large for you to handle on your own; get SSEL personal and or lab manager.

**Report all accidents (injuries, spills, fires) to the SSEL manager or other SSEL staff. For emergencies during non-business hours, call the SSEL Emergency Response Team at (734) 764-4127 or the Dept. of Public Safety at (734) 763-1311.**

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