Operation: Solvent Wet Bench

Potential Hazards

It is important to realize that there are a number of potential hazards associated with the operation and maintenance of this equipment.

ELECTRICITY

Input power is 115 volts AC. Only qualified personnel should be working on the electrical parts of this system.

CHEMICALS

Only SOLVENTS are to be used at this wetbench. You should read the Material Data Safety Sheets on the chemicals you will be using before working at this station.

SOLVENT WASTE

The wetbench has DI water and city water hooked up to it. DO NOT POUR WASTE INTO THE DRAIN, SOLVENT WASTE SHOULD BE COLLECTED IN A LABELLED BOTTLE.

DO NOT WORK WITH ANYTHING OTHER THAN SOLVENTS AT THIS STATION- If acids are mixed with solvent, A VIOLENT ACTION WILL OCCUR.

HOT PLATES

Do not leave the bench unattended when you are using the hot plate (especially since this is a solvent bench, and you will be heating only solvents on the hot plate). Be sure that the Hot Plates are turned off when not in use.

ULTRASONIC

Do not leave the bench unattended when you are using the heated ultrasonic bath!

The bench has a heated ultrasonic bath that is to be used for ultrasonic cleaning of wafers. Be sure that the power to the ultrasonic generator and the heater are off when it is not in use. Only solvents are to be used in this bath.

Solvents commonly used in the lab are: Acetone, Methanol, Isopropl Alcohol, Photoresist(many different ones), HMDS, Resist Thinners, KTI Negative Resist Developer, KTI Negative Resist Rinse, HMDS, J100, Ecostrip.

Emergency Shut-Down Procedures

In the event of an emergency, the power to Solvent Wet Bench should be shut down.

If the exhaust shuts down while there are chemicals in the benches EVACUATE THE LAB.

Wear safety glasses or goggles over regular glasses when working at the bench.

Make sure the exhaust is working, check the exhaust alarm system for sufficient exhaust (greater than 50).

Wear solvent gloves (solvex - except for TCA OR Viton Fluroelastomer - for any solvents).

Do not leave cleanwipes on the surface of the wetbench, the venting is excellent and they will be sucked to the back of the bench and get into the hotpots (contaminating them - a real pain to clean up). If this happens contact the technician in charge.
Do not leave chemicals at the wetbench.

Changing Chemicals
You are responsible for supplying your own quartzware at this wetbench. Do not leave beakers at the station unlabeled. When you are finished with the chemicals, dispose of them. Do not leave a mess for someone else to clean up.
Do not leave your beakers at the station when you are finished with them. You must recycle your solvents by collecting them in a bottle properly labeled by sticking a sticker ONLY SOLVENTS. If you are unsure about a chemical that you are using (if it is a solvent) please ASK the technician in charge of the wetbench.

Always open bottles under an exhausted hood, and be sure the bottle is far enough back under the hood, to prevent fumes from escaping into the room. Place the bottle cap upside down on a bench, to prevent contamination from getting around the caps edge and into the bottle when the cap is replaced.

Do not touch the inside of the bottle cap or the area around the mouth of the bottle with your gloves, as you will contaminate the chemical.
Do not leave the hot plates on when you are finished using them.

There is an Ultrasonic Cleaner placed into the solvent bench. Fill the bath with DI water and place beaker with solvent inside bath. Be sure to drain the solvent when you are through, turn off the ultrasonic generator, and turn off the heater to the ultrasonic when you are finished using it.

Final Cleanup
When the spincoater is used, please clean the mess using cleanwipes and acetone before you leave. The used cleanwipes should be left in a stainless steel inside the wetbench for overnight drying.