ULTRASONIC BENCH CERTIFICATION CHECKLIST
How can a user hurt themselves? How can a user hurt the tool?

A qualified user should be able to:
- Identify personal safety hazards associated with the tool and what precautions are taken to prevent an accident from occurring.
- Identify hazards to the tool and what precautions are taken to prevent an accident from occurring.
- Operate the tool safely and proficiently.
- Recover from simple errors.
- Demonstrate knowledge of the processes performed with the tool.

Ultrasonic Bench

- Personal Safety Hazards
  - No acetone may be used on this bench due to flammability.
  - No solvents may be used directly in the ultrasonic bath.
  - The Ultrasonic Bench uses several hazardous chemicals. Users should be aware of the unique hazards of the materials with which they are working. If a chemical is spilled, remove clothing and rinse affected area in safety shower for 15 minutes and inform SMFL staff member or lab instructor.
  - When working at the Ultrasonic Bench, always use appropriate personal protective equipment (PPE)—apron, face shield and heavy rubber gloves.
  - The PPE should not be worn any place other than the immediate vicinity of the bench. Do not walk away from bench while wearing PPE. If assistance is needed (i.e. to grab a Kim Wipe or timer, etc.), ask for assistance—do not get it while wearing PPE. Do not work at computer or answer the phone while wearing PPE. When finished at the bench, rinse the PPE, fully dry it and return to hook.
  - It is imperative that all spills be cleaned up immediately because of the number and variety of materials used at this bench. Please see a staff member for assistance in cleaning up spills.

- Hazards to the Tool
  - No solvents or lift off agents may go down the drain. These must be bottled up, labeled and properly disposed of.
  - No chemicals may be used directly in the ultrasonic bath. Only water and soap may be used directly in the tank.
  - Never leave the ultrasonics or the heater running unattended.
  - Never operate the ultrasonics without water in the tank.
  - No copper or gold may be processed in this bench.

- Operating Tool
  - Users should be able to:
    - Properly set up the bath.
    - Safely process wafers.
    - Properly dispose of used chemicals.
- Properly put boats away when finished
  - Reservations - If not present at stated start time, tool is reserved for 15 minutes and is then considered open for general use.

- Simple Errors
  - Failure to turn on power to the Bench.

- Processes
  - Users should be familiar with:
    - Basic liftoff process.

- Appropriate Uses of the Tool
  - This bench is intended for metal lift off processes and light wafer cleaning.
  - No chemicals may be used directly in the ultrasonic bath. Only water and soap may be used directly in the tank.
  - No acetone may be used in this bench.
  - No copper or gold may be processed in this bench.