

## Soldering Safety



### Soldering Iron Safety

- Never touch the element or tip of the soldering iron. They are very hot (about 400°C) and will burn.
- Hold wires to be heated with tweezers or clamps.
- Keep the cleaning sponge wet during use.
- Always return the soldering iron to its stand when not in use. Never put it down on your workbench.
- Turn unit off or unplug it when not in use.

### Work Safely with Solder, Flux and Cleaners

- Wear eye protection. Solder can “spit”.
- Use lead free solder.
- Keep cleaning solvents in dispensing bottle to reduce inhalation hazards.
- Always wash your hands with soap and water after soldering.
- Read and understand the [SDS](#) for all materials before beginning work.



### Dangers of Lead Exposure

Lead on your skin can be ingested and lead fumes can be given off during soldering. Other metal fumes can also be hazardous. Lead can have serious chronic health effects, such as reproductive problems, digestive problems, nerve disorders, memory and concentration problems, muscle and joint pain.

### Avoid Toxic Fumes

- Work in a well-ventilated area. The smoke formed is mostly from the flux which can be irritating, a sensitizer, and aggravates asthma. Avoid breathing it by keeping your head to the side of, not above, your work.
- A benchtop fume extractor may be necessary to remove harmful fumes caused by solder and flux from the soldering workstation by filtering the air.



### Reduce Risk from Electricity

- Always use a grounded outlet and grounding prong to reduce the risk of electrical damage if a short circuit occurs in the equipment.
- Prevent damage to electrical cords during soldering. Keep them away from heated tips.

### Fire Prevention

- Work on a fire-proof or nonflammable surface that is not easily ignited.
- Wear nonflammable or 100% cotton clothing that covers your arms and legs to help prevent burns.
- Know where your fire extinguisher is and how to use it.

### First Aid

- Immediately cool the affected area under cold water for 15 minutes.
- Do not apply any creams or ointments. Cover with a bandage.
- Seek medical attention if the burn covers an area bigger than 3 inches across.

### Waste

- Discard lead and silver solder and dross in a container with a lid.
- Label the container: “Lead (Silver) Solder Waste for Recycling”.
- Used solder sponges and contaminated rags must be disposed of as hazardous waste.
- Keep a lid on waste solder containers when not adding or removing material.

