

SOLDERING AND STAINED GLASS

Projects involving the creation of stained-glass pieces entail working with lead-containing solder, toxic and corrosive patina, heat sources, and the physical handling and cutting of glass. These tasks present hazards such as potential fire, burns, cuts, injection injuries, flying materials, and inhalation of dust, metal fumes, and chemical vapors. To mitigate these risks, please adhere to the following guidelines:



- Perform soldering only in EHS-approved, well-ventilated areas with local exhaust ventilation or bench top filter extraction systems. Recirculating filtration systems are not acceptable for lead-containing solder.
- Use rosin-free or lead-free solders, whenever possible.
- The obtaining, storing, handling, and use of lead-containing came strips is prohibited. Contact EHS for additional information.
- Damp wipe soldering areas upon completion.
- Obtain and review the Safety Data Sheets (SDS) for all materials, including solder, and ensure they are added to the location's eBinder.
- Conduct all glass cutting in approved areas. Prepare for safe cleanup with tools such as a shop vacuum, brush, dustpan, and waste container.
- Use local ventilation or wet methods for processes that generate glass dust. If these methods are not feasible, contact EHS for further evaluation.
- Ensure all food and drink are removed from and not consumed in the area.
- Conduct work on an appropriate fire-resistant or noncombustible surface.
- Use soldering equipment with clear visual indicators to identify when the device is turned on.
- Utilize appropriate personal protective equipment (PPE) to minimize the risk of injury. PPE may include:
 - Fire-resistant long-sleeve shirts and pants made of natural fibers (e.g., cotton). Avoid synthetic materials that can melt and burn.
 - Closed-toe shoes.
 - Heat-resistant gloves.
 - Safety glasses or goggles.
 - Face shield.
 - Cut-resistant gloves.
- Avoid directly touching and holding workpieces; use tweezers, pliers, and clamps instead.
- Maintain a clutter-free work area.
- Use care when handling soldering irons. Always return them to the stand when not in use and never attempt to catch a falling iron.
- Turn off and unplug equipment when not in use, and ensure it is completely cool before storage.
- Inspect all equipment, including cutters, prior to use and store properly when not in use.

Following these guidelines will help ensure a safe and efficient working environment for stained glass projects.

More Information

Centers for Disease Control and Prevention:

<https://www.cdc.gov/lead-prevention/communication-resources/index.html>

Occupational Health and Safety Administration:

<https://www.osha.gov/sites/default/files/publications/OSHA3680.pdf>