

## **Aerospace Education Safety – Hot Glue Guns**

Hazard Description: Hot glue guns are a common craft tool designed to supply a melted adhesive that can provide a quick, reliable and strong method of joining materials. However, in order to function, they and the wax contents will get hot, causing serious injury and/or damage. Personal injury may occur.

General hazards that may arise when using a hot glue gun include:

- Burns from the hot glue or metal component of the gun
- Inhalation of fumes
- Electrical – the metal nozzle when hot, melts plastic coated electrical cords.

Prior to the activity:

- Before using the hot glue gun, examine the power cord, extension lead, plugs, sockets and power outlet for damage. Specifically look for cracked or damaged casing, bare wires, loose connections, damage to the cord sheathing, and/or missing or loose screws.
- Ensure that there are no flammable gases, liquids or other materials in the work area.
- Make sure the work surface area is not contaminated with oil or grease.
- Make sure the area is well-ventilated. If a ventilation system is available, make sure it is operating properly. Do not use the gluing equipment in a confined space or where the ventilation is considered to be inadequate.
- Do not use the hot glue gun near water.
- Have all materials to be joined prepared and ready.
- Ensure that the unit commander is aware of the use of a hot glue gun.

At the beginning of the activity, provide a safety briefing:

- Do not touch the hot glue. It will burn your skin.
- Cotton gloves should be used, if available.
- Do not touch any metal part of the hot glue gun as these parts are hot and will cause burns.
- Vapors given off during normal operation are not considered to be toxic, but if the glue becomes overheated, notify the member leading the activity. There could be a chemical breakdown of the components releasing a complex mixture of organic materials.
- Do not force glue sticks into the rear of the glue gun.
- Do not push any object other than a glue stick into the back of the glue gun.
- When the glue gun is not in use, place it on its stand. Do not lay a hot glue gun on its side.
- Always focus on the gluing task. If you need to look away from gluing, stop using the hot glue gun and place it in the safety stand.
- Always place the stand on a piece of cardboard or timber to catch any drips of glue from the gun.
- When finished with the hot glue gun, switch it off and place it back in the stand.
- Apply the hot glue to one surface only and bring the surfaces together within a few seconds.
- Hold or clamp the surfaces together until the adhesive has cooled and set.
- Only reload another glue stick once there is sufficient space in the rear of the gun to support another stick.
- Do not extract glue sticks from the rear of the gun
- Do not tilt a hot glue gun upwards or attempt to use it to glue an overhead item.

- Check all clothing to ensure that it does not create a safety hazard, such as:
  - Remove any jacket or coat
  - Roll up shirt sleeves above the elbows or fasten them securely at the wrists.
  - Remove any rings, watches, bracelets, or necklaces
  - Wear solid firm shoes to protect the feet.
  - Wear appropriate Personal Protective Equipment (PPE) such as safety glasses for eye protection.
- Never leave a plugged-in hot glue gun unattended.
- NOTE: If the glue has come in contact with the skin – DO NOT remove the adhesive when molten, as it may remove skin and leave a raw wound. Get medical assistance immediately.

After the activity:

- Do not wind the cord around the body of the glue gun while it is still hot.
- Wipe any excess molten glue from around the nozzle at the end of each work session. This avoids build up of glue deposits which can char. This should be done by a senior member while the applicator is still hot. Always wear protective gloves when performing this action.
- After completing the project, ensure that the gun has cooled down before returning it to its storage position.
- Store the glue gun so as to prevent damage to the electrical cord.