**General Risk Assessment Form**



| **Date:** (1) | **Assessed by:** (2) | **Checked / Validated\* by:** (3) | **Location:** (4) | **Assessment ref no** (5) | **Review date:** (6) |
| --- | --- | --- | --- | --- | --- |
| **Task / premises:** (7)Use of a heat gun/ hot air gun |

| **Activity** (8) | **Hazard** (9) | **Who might be harmed and how (risk)** (10) | **Existing measures to control risk** (11) | **Risk rating** (12) | **Result** (13) |
| --- | --- | --- | --- | --- | --- |
| Use of a heat gun | Fire, hot surfaces, electric shock,explosion(over-heating glassware) | Who: User and laboratory users Risk: adverse health effects, injury,burns, death. | * Never leave a heat gun switched on and unattended.
* The heat gun is TURNED OFF when not in use and switched off at the plug.
* Do not use an extension cord to power a heat gun because a high current draw can result in overheating and pose risk of fire or electrocution.
* Ensure there is ample light before operating the heat gun.
* Never touch the hot metal nozzle with clothing or skin.
* Allow the heat gun to cool before storing away.
* When heating ensure there is at least a 1 cm gap from the nozzle to the material being heated.
* When in use ensure the heat gun is pointed away from others, consider the direction the heat is going and ensure nothing apart from the desired heated object is in close proximity.
* Manufacturer’s instructions should be read and followed during use.
* Equipment should be inspected prior to use.
* If the plug or cord is worn, frayed, or damaged, if the grounding pin has been removed, or if a spark is observed, the heat gun should not be used. It should be labelled as ‘faulty’ and isolated, from where it is either sent for repairs or disposed of as appropriate.
* Before use, the heat gun is verified to be PAT tested and the function of the “off” switch is tested to verify that it works.
* Be aware heat guns casing are only heat-resistant.
* If heating metals, the metal will remain hot for some time after heating, ensure it is stored on a heat resistant mat and at the back of a bench away from being accidentally touched. Use signage to warn others.
* When using with glassware ensure the glassware is checked for cracks and only borosilicate glassware, is used. Heat is directed over the whole of the area evenly to avoid creating hotspots and the likelihood of glassware cracking/shattering **(*Do not heat thick-walled glassware, plastic containers, soft-glass bottles, or jars.)***
* Ensure that the heat gun’s electrical cords do not contact the hot surface or is in the path of the heat generated.
* The area around the use of the heat gun is free of flammable and combustible materials. ​
* Heat guns are not used within the vicinity of pressurised gases such as gas cylinders, lecture bottles and gas canisters.
* Heat guns are placed in the holder (a retort stand with a metal ring) when not in use with the nozzle pointing away from users. Or placed on a heat resistant mat and placed to the back of the bench to avoid accidentally touching.
* Contact with heat gun nozzles should be avoided as they may be hot for some time after use.
* When using a heat gun, the apparatus being heated is not held by hand (i.e. hands are kept away from the heat generated.) Use clamps or tongs to hold the item being heated to avoid burns to the hands, or place the item to be heated on a heat resistant mat.
* The presence and direction of the heat produced is observed. The air flow **(*Never direct the air flow towards one’s body*. *Do not look down the nozzle while the gun is turned on*.)**
* Never block the inlet grill or obstruct the air flow of the unit while in operation.
* All researchers should be trained and signed off as competent on the use of the heat gun that they use.

**PPE:*** EN166 safety glasses and flame retardant lab coat.
* If heating whilst holding an apparatus, EN 407 heat resistant gloves.

**Frist Aid** * If burns occur, run affected area under a cold tap for at least 10 mins, call a first aider, burn dressings for heat burns are in the first aid box.
 | Medium | A |

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| **Action plan** (14) |
| **Ref No** | **Further action required** | **Action by whom** | **Action by when** | **Done** |
|  | This form will be altered to suit each laboratory/workshop/cleanroom specific operating procedures.  | Supervisor / line manager |  |  |
|  | The control measures stated within this document are to be implemented. | Supervisor/ line manager |  |  |
|  |  |  |  |  |

**I confirm that I have read this Risk Assessment and that I understand the hazards and risks involved and will follow all of the safety procedures stated.**

| **Name (please print)** | **Signed** | **Line manager /PI countersignature** | **Date** |
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