# Risk Assessment Form

(This is an active document and must be maintained)

UNIVERSITY OF CAMBRIDGE

## Materials Science and Metallurgy

Date: 15th September 2017

Supervisor of Room/Area: **Prof. Serena Best & Prof. Ruth Cameron**

Room or area: **2_014 (CCMM Labs)**
(Describe location)

Name of Assessor(s): **Wayne Skelton-Hough**

**Title of Activity / Experiment / Work Area:**

**Use of the Acutom slitting saw to section samples**

**Description of Activity / Experiment / Work Area:**

Use of the Struers Acutom slitting saw to section samples using the correct one of three blades depending on the material being cut.

**SECTION 1:** Identify all significant hazards, who or what may be affected by each individual hazard and controls in place to reduce risk to a minimum.

| Hazard Description | Hazard to whom or what | Controls in place to reduce risk to a minimum |
|---|---|---|
| Electrocution | Person using the equipment | Inspect all electrical equipment and power cables before use and do not use any equipment that shows any sort of damage.<br>Ensure electrical equipment carries an up to date PAT label before using it.<br>Do not switch on any electrical equipment that gets wet. |
| Trapped hands | Person using the equipment | Keep hands out of the cutting area when switching the machine on and when positioning the sample. |
| Cuts from sharp saw blade and/or sharp sample | Person using the equipment | Allow blade to come to a complete stop before opening cutting area guard (cutting blade will switch off if guard is opened but no brake is fitted to stop the blade quickly).<br>Handle sharp cutting blades and/or sharp samples with extreme care as blades can be VERY sharp. |

| Hazard Description | Hazard to whom or what | Controls in place to reduce risk to a minimum |
|---|---|---|
| Flying debris and/or cutting fluid | Person using the equipment and other lab users in the vicinity | Allow blade to come to a complete stop before opening cutting area guard (cutting blade will switch off if guard is opened but no brake is fitted to stop the blade quickly).<br>Ensure that cutting area guard is closed properly before starting cutting.<br>Ensure that sample is correctly mounted in the sample holder before starting cutting. |
| Irritation from skin contact with cutting fluid. | Person using the equipment | Allow blade to come to a complete stop before opening cutting area guard.<br>Wear suitable PPE when using cutting equipment (lab coat and disposable gloves).<br>If irritation is felt, wash hands thoroughly with plenty of soap and water and seek medical attention if required. |
| Slip on spilt cutting fluid | All laboratory users | When transporting used cutting fluid, exercise extreme caution and clean up any fluid spills immediately.<br>If cutting fluid leaks from the cutting area (because of guard not being shut fully), close guard fully and clean up any spilt fluid immediately. |
| Burns from hot sample and/or blade. | Person using the equipment. | If sample cutting is likely to generate significant heat, ensure that cutting fluid is used to cool the sample.<br>If coolant cannot be used or the user suspects that the sample and blade may have become hot, allow sample and/or blade to cool down completely before handling samples with bare hands. |

**SECTION 2:** Emergency Procedures

If anyone is burnt, the affected area should be run under cold water for at least 15 mins. A first aider should be called if the burn area is greater than the area f the palm of the user's hand. If symptoms continue, medical attention should be sought.

If the operator sustains a cut, it should be cleaned out and medical attention sought.

In the case of skin exposure to coolant or sample debris, wash the affected area thoroughly with soap and copious amounts of running water. Remove contaminated clothing and consult the appropriate MSDS and/or COSHH assessment for appropriate emergency action. If a rash develops, seek medical attention.

If anyone gets coolant or debris in their eye, wash the eye with water for at least 15 mins, lifting upper and lower eye-lid occasionally and then seek medical attention.

All spillages to be cleaned up immediately using water and paper towel.

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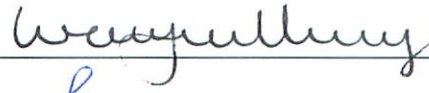
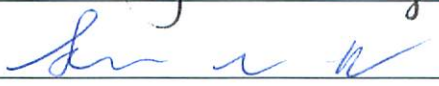
|---|---|---|
| **Signature of Assessor(s)** |  | **Date:** 15/09/17 |
| **Signature of Supervisor** |  | **Date:** 19/9/17 |

**SECTION 3:** Review - This assessment must be reviewed every 12 months or earlier if the basis of the original assessment is altered.

| Review Date | Reviewed by (Signature) |
|---|---|
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| Review Date | Reviewed by (Signature) |
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## Change log

| Change | Date | Updated by | Description |
|---|---|---|---|
| 1 | 08/07/2016 | W. Skelton-Hough | Document issued. |
| 2 | 02/06/2017 | W. Skelton-Hough | Typos corrected. Document title added to footer. |
| 3 | 15/09/2017 | W. Skelton-Hough | Section 3 added back into the risk assessment. |