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 Attritor Mill to mill/combine material in the presence of a solvent

Description of Activity / Experiment / Work Area:

Milling/combining materials in the presence of a solvent, with or without milling media.

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 carrying out the procedure	Inspect all electrical equipment and power cables before use and do not use any equipment that appears damaged.
Flammable solvent	All laboratory users	The solvent level in the vessel should be monitored at all times. If the solvent level is too high the solvent could spill out, increasing the risk of fire. If the solvent level is too low the contents of the vessel may get hot, increasing the risk of fire. If long milling times are required, water cooling of the vessel should be used. The user should familiarize themselves with the locations of fire-fighting equipment in the laboratory.

Hazard Description	Hazard to whom or what	Controls in place to reduce risk to a minimum
Rotating parts	Person carrying out the procedure	Tie back long hair, remove jewelry and ensure that any lanyards are of the quick release variety. Wear a correctly fastened laboratory coat. The lid should be fitted before use. Ensure the area around the shaft is free of obstructions. Do not put any body parts near the moving parts of the mill during use. NEVER try to stop the rotating spindle by grabbing it. Safety glasses should be worn to protect the eyes from escaping media. The emergency stop button should be located away from the attritor mill.
Solvent being used	Person carrying out the procedure	Safety glasses, gloves and buttoned up lab coat should be worn to protect skin and eyes from the solvent being used. Do not fill the vessel more than ¾ full. The lid should be fitted before use to minimize spillage. Increase the attritor mill speed slowly and observe for any spillage.
Solvent fumes.	All laboratory users	The attritor mill should only be operated in an adequately ventilated space.

SECTION 2: Emergency Procedures

If the operator or other laboratory user gets solvent in their eyes/on their skin then use an eye wash/wash the affected area with cold water. Seek medical attention if symptoms persist.

If the operator or other laboratory user shows signs of exposure to solvent fumes, remove to a well-ventilated area and consult the appropriate MSDS and/or COSHH assessment for appropriate emergency action.

In order to shut the equipment down in case of an emergency, press emergency stop button (red button).

Signature of Assessor(s)	Wayne Murray	**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)

Review Date	Reviewed by (Signature)

Change log

Change	Date	Updated by	Description
1	22/03/2016	W. Skelton-Hough	Document issued.
2	02/06/2017	W. Skelton-Hough	Typos changed. Document title added to footer.
3	15/09/2017	W. Skelton-Hough	Section 3 added back in to risk assessment.