

Risk Assessment Form

(This is an active document and must be maintained)



UNIVERSITY OF
CAMBRIDGE

Materials Science and Metallurgy

Date: 30th March 2020

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 Malvern Mastersizer

Description of Activity / Experiment / Work Area:

Normal operation of Malvern Mastersizer to measure particle size distribution by use of laser diffraction.

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	Operator	Inspect all electrical equipment and power cables before use and do not use any equipment that shows any signs of damage. Ensure electrical equipment carries an up to date PAT label before using it. Do not switch on any electrical equipment that gets wet.
Possible eye damage from staring at Class 3R laser.	Operator and observers	Laser automatically shuttered when not in use. Protective screen prevents accidental eye contact. Avoid staring at the beam. Do not allow the laser beam to hit the eye of an observer, even via reflective surfaces such as watch straps, etc. Do not interfere with any machine guarding. Only Malvern trained personnel or competent persons are permitted to remove the main cover of any part of the system.

Hazard Description	Hazard to whom or what	Controls in place to reduce risk to a minimum
Flying debris	Person using the equipment and other lab users in the vicinity	Specimens likely to fail in such a manner that could result in the energetic expulsion of debris from the sample area shall not be tested on this equipment until such time as suitable guarding has been acquired and installed.

SECTION 2: Emergency Procedures

In the event of evacuation (e.g. fire drill or other emergency), the test frame should be stopped immediately using the emergency stop button. Once cross head motion has been stopped, the equipment may safely be left unattended.

In the case of a crush injury, the affected area should be run under cold water for at least 15 mins and medical attention sought.

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

If anyone gets sample 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.

Signature of Assessor(s)		Date: 26/03/2020
Signature of Supervisor		Date: 4/6/20

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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Change log

Change	Date	Updated by	Description
1	12/09/201	W. Skelton-Hough	Document issued.
2	15/09/2017	W. Skelton-Hough	Section 3 or risk assessment added back into document
3	30/03/2020	W. Skelton-Hough	Reference to the Malvern Spraytec removed from the document.