

Safety Documentation

Please select the forms you require by selecting the check boxes below.
You can select more than one.

Method Statement

Risk Assessment

Chemicals COSHH

Once you have made your selections, scroll down and complete the forms.

Buttons: **[+]** will add a row to a list **[X]** will delete a row from a list

You may save this file to a local drive at any time.

When you have finished, save the file to a local drive and email it to your supervisor for authorisation.

Supervisors - There is a sign-off section at the end of the document set that must be completed.

Staff may "self authorise", (as a supervisor), but the forms must still be submitted to the DSO for approval.

IMPORTANT:

YOU ***MUST NOT*** START ANY PRACTICAL WORK UNTIL THESE FORMS HAVE BEEN RETURNED TO YOU
WITH **BOTH** YOUR SUPERVISOR's AND DSO's APPROVAL SIGNATURES ATTACHED.

Please complete these fields

School or Service	Wolfson School of Mechanical, Electrical and Manufacturing Engineering
Department	
Originator name	Eleanor Knight
email address	e.knight@lboro.ac.uk
Location	CBE
Project / Activity / Task	Lone working on project Biocompatibility of 3D printed Ti scaffolds:
Supervisor Name	Carmen Torres-Sanchez

Safety Method Statement

Reference SAF/MEME/7756

Location CBE Originator Eleanor Knight

Project / Activity / Task Lone working on project Biocompatibility of 3D printed Ti scaffolds:

What equipment will be used in this activity? +

BSC's, centrifuges, CO2 incubator X

What training must be completed to do this activity? +

Must be competent with all equipment and have undergone CBE induction X

What chemicals are being used? (These must be included in the COSHH Form) +

Cell culture media X

PBS X

Spill and accident procedures. +

CBE SOP038 Biological spill response X

Procedure in the event of an emergency. (How to leave the process in a safe condition in such an event) +

Lone hours - if possible make area safe (power down equipment), evacuate area, inform Security 888 from university phone or 01509 222141 from mobile. X

References. +

CBE BRA147 X

Detailed sequential description of the process

Process step	Precautionary measures and comments	+
<p>As part of the work covered in risk assessment CBEBRA147 it may be necessary to change media or do basic non-hazardous tasks out-of-hours when an experiment is time-dependent</p>	<p>Only necessary time-dependent processes will be completed out-of-hours When it is necessary to work out-of hours: a) Complete the Holywell Park out of hours register by completing the online form using the following link. https://www.lboro.ac.uk/services/security/out-of-hours/ b) Complete the out of hours book in the CBE office.</p> <p>The latter two are to ensure security are aware of who is in the building in the event of a fire.</p> <p>c) Use the University lone working app</p>	X

Safety Method Statement (Continued)

Process step	Precautionary measures and comments	+
Task may include: 1. Thawing of cryopreserved cells 2. Culture of cells in incubated T-flasks with growth medium. 3. Cryopreservation of cells using DMSO-based cryoprotectant media 4. Culture of cells on and within titanium disks in multi-well plates 5. Collection of spent growth medium and storage in freezers. 6. Collection of cell lysate for measurement of DNA, ALP and protein concentration	All approved safety protocols should be followed and standard PPE worn - Lab coat, shoe covers, gloves	X
		X
		X
		X
		X
		X
		X
		X

Risk Assessment

Reference

Location

Originator

Project / Activity / Task

Is this process risk assessment for a : Laboratory / Workshop General use Event

Category 1: Machinery & work equipment:				
Design and Construction	Mechanical hazards	Electrical hazards	Radiation hazards	
		PAT testing current		+
				x
Category 2: Workplace				
Slips/Trips/Falls on the level				+
				x
Category 3: Hazardous and/or Harmful substances				
Biological substances - working with cells				+
				x
Category 4: Work activity				
Lone working out of hours				+
				x
Category 5: Work organisation				
				+
				x

Explain the risks associated with these hazards

People / Groups at risk	<input type="text" value="Operator only"/>			x
Enter risk details here:-	Impact	Probability	Risk Score	
<input type="text" value="Lone working with biological material"/>	<input type="text" value="Slightly Harmful"/>	<input type="text" value="Highly Unlikely"/>	Low	
What are the control measures?	Lowers Impact	Lowers Probability	+	
<p>Received extensive training (autoclave, BSC, and centrifuge) and briefings (waste disposal and aseptic techniques) and have passed the CBE health and safety induction.</p> <p>Inform academic supervisor and a colleague of intention to lone work and state duration of stay.</p> <p>Ensure you have mobile phone on person at all times.</p> <p>Always remember to log out of lone working app when leaving building at completion of the work.</p> <p>Furthermore, there are all the emergency numbers listed in the lab if further assistance required.</p>	Moderately	Moderately	x	

Process Risk Assessment Form (Continued)

Will be aware of all safety procedures and numbers	Significantly	Significantly	x	
			Residual Risk	
			Low	
People / Groups at risk	Operator only			x
Enter risk details here:-	Impact	Probability	Risk Score	
1. Biological Spills Response	Slightly Harmful	Unlikely	Low	
What are the control measures?	Lowers Impact	Lowers Probability	+	
All spillages must be dealt with immediately. Unconfined spillages can create aerosols that can be dispersed throughout the lab. NOTE if a chemical spill occurs in unison with a biological spill and the chemical spill presents a greater hazard – proceed with chemical decontamination first. Refer to SOP038				
No hazardous material will be used during out-of-hours lone working	Slightly	Slightly	x	
			Residual Risk	
			Low	
People / Groups at risk	Operator only			x
Enter risk details here:-	Impact	Probability	Risk Score	
Use of Electrical Equipment	Slightly Harmful	Highly Unlikely		
What are the control measures?	Lowers Impact	Lowers Probability	+	
As part of the experimental process it is necessary to use electrical equipment such as fridges, freezers, pipette boys, centrifuges, microcentrifuges, incubators and biological safety cabinets may be required.				
Training has already been completed on all of these pieces of equipment and the relevant SOPs will be followed SOP009, SOP016, SOP047, SOP088, SOP089, SOP105, SOP114, SOP129, SOP192	Moderately	Moderately	x	
All items have been PAT and maintained correctly				
			Residual Risk	
			Low	
+ Add another Risk				

Who may be at risk as a result of this activity?

Personnel Group	Maximum (Task setup/ Re-configuration)	High (Performing the task)	Medium (Observing the task)	Low (Present, but not involved)	Lone Working (Out of hours)	No Exposure Permitted	Total
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Process Risk Assessment Form (Continued)

Personnel Group	Maximum (Task setup/ Re-configuration)	High (Performing the task)	Medium (Observing the task)	Low (Present, but not involved)	Lone Working (Out of hours)	No Exposure Permitted	Total
Academic Staff	0	0	0	0	0	0	0
Technical Staff	0	0	0	0	0	0	0
Research Staff (PDRA)	0	0	0	0	1	0	1
Research Students (PhD)	0	0	0	0	0	0	0
Students (Undergraduate / MSc)	0	0	0	0	0	0	0
Visitors	0	0	0	0	0	0	0
Others - Over-type as needed	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	1

With these controls in place, the risk is:

The activity is LOW RISK - and is effectively controlled

COSHH Form

 Reference

 Location

 Originator

 Project / Activity / Task

CHEMICAL NAME							Hazard Rating <input type="text" value="Low"/>	OVERALL RISK: <input type="text" value="Low"/>
<input type="text" value="Cell culture media"/>	Amount used	Period of use (hrs)	The process is:	Physical State	<input type="checkbox"/> Eyes <input type="checkbox"/> Skin <input type="checkbox"/> Inhaled <input type="checkbox"/> Ingested	Exposure Potential	Low	
CAS No. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="Semi Closed"/>	<input type="text" value="Non-Volatile Liquid"/>		<input type="text"/>		
W.E.L. (Itel / stel) <input type="text"/>	<input type="text"/>	<input type="text" value="g"/>						

Hazard Statement and Description	Precaution Statement and Description	+
<input type="text" value="No Hazard Statements applicable"/>	<input type="text" value="No Precaution statements applicable"/>	x
How will the precautions listed above be implemented?		
Special Storage and Containment Measures	Disposal Method	+
	<input type="text" value="Biological waste (See RA CBEBRA147)"/>	x
How will spillages be dealt with?	<i>Please note: any material used to clean up a spill of hazardous material must also be disposed of as hazardous material. Click here to see spill procedures</i>	

CHEMICAL NAME							Hazard Rating <input type="text" value="Low"/>	OVERALL RISK: <input type="text" value="Low"/>
<input type="text" value="PBS"/>	Amount used	Period of use (hrs)	The process is:	Physical State	<input type="checkbox"/> Eyes <input type="checkbox"/> Skin <input type="checkbox"/> Inhaled <input type="checkbox"/> Ingested	Exposure Potential	Low	
CAS No. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="Semi Closed"/>	<input type="text" value="Non-Volatile Liquid"/>		<input type="text"/>		
W.E.L. (Itel / stel) <input type="text"/>	<input type="text"/>	<input type="text" value="g"/>						

Hazard Statement and Description	Precaution Statement and Description	+
<input type="text" value="No Hazard Statements applicable"/>	<input type="text" value="No Precaution statements applicable"/>	x
How will the precautions listed above be implemented?		
Special Storage and Containment Measures	Disposal Method	+
	<input type="text" value="Biological waste (See RA CBEBRA147)"/>	x
How will spillages be dealt with?	<i>Please note: any material used to clean up a spill of hazardous material must also be disposed of as hazardous material. Click here to see spill procedures</i>	

+ Add another chemical

 Statement of work (Process to be undertaken)
Show image

COSHH Form (Continued)

Personal protection requirements not covered in the precaution statements above.

Wear required PPE - lab coat, shoe covers and gloves

Sources of information and references

Reference to **existing approved** Risk Assessment

CBE BRA147

With the current controls, the risk of using these chemicals is: Low

Supervisor to check that the process involving the safe use of these chemicals has been satisfactorily evaluated

Supervisor and Departmental Safety Office (DSO) Sign-off.

Supervisors

Please check the documents above and if you want to approve them:

- 1) Electronically sign this document
- 2) Save it to a local drive (You will be prompted to do this)
- 3) eMail the signed document to the DSO.

DSO

Please review the documents above and if you want to approve them:

- 1) Enter the reference numbers as appropriate
- 2) Electronically sign this document
- 3) Save it to a local drive (You will be prompted to do this)
- 3) eMail the signed document to the originator

IF YOU DO NOT WANT TO AUTHORISE THE FORMS,

Please do not sign the form, but click the "Not Approved" check-box and return it to the originator by email stating why and what you expect them to do to put it right in the comments box below.

Not Approved

Supervisors Signature

Form Reference Numbers

Risk Assessment

SAF/MEME/7756

Method Statement

SAF/MEME/7756

COSHH Assessment

SAF/MEME/2073,2074

DSO Signature

This document set must be reviewed and re-approved at the following times:

- 1) After the first occurrence of the activity described above (Review only)
- 2) After any change to the procedure or reagents used
- 3) After any incident resulting from this activity
- 4) At least annually from the date of approval

Next Review:

12 Oct 2024

Review comments