Safety Documentation

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

☑ **Risk Assessment** ☑ **Method Statement** ☐ **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	Center for Biological Engineering
Originator name	Jen Bowdrey
email address	j.bowdrey@lboro.ac.uk
Location	CBE
Project / Activity / Task	Use and Maintenance of the Heat Block
Supervisor Name	Carolyn Kavanagh

Version : 2.20

Loughborough University
Center for Biological Engineering

Risk Assessment

Reference: SAF/MEME6875

Location	CBE	Originator	Jen Bowdrey
Project / Activity / Task	Use and Maintenance of the Heat Block		

Is this process risk assessment for a : (✓) Laboratory / Workshop ( ) General use

Category 1: Machinery & work equipment:

Design and Construction	Mechanical hazards	Electrical hazards	Radiation hazards	+
N/A	N/A	Electrical test lables current	N/A	x

Category 2: Workplace	+
Localised hot surfaces	x

Category 3: Hazardous and/or Harmful substances	+
Possible use of chemicals and biological agents	x

Category 4: Work activity	+
Lone working out of hours	x

Category 5: Work organisation	+
N/A	x

Explain the risks associated with these hazards

People / Groups at risk: Operator only — x

Enter risk details here:-	Impact	Probability	Risk Score
Localised hot surface can reach temperatures up to 100C	Harmful	Unlikely	Medium

What are the control measures?	Lowers Impact	Lowers Probability	+
A thermometer/or the internal block thermometer will be used to indicate the current block temperature	Moderately	Slightly	x
The blocks must be removed using the tool provided and not by hand	Moderately	Moderately	x
Forceps are to be used when transfering tubes to and from the heat block.	Slightly	Slightly	x
Volumes used in the eppendorf tubes must not exceed 1ml, to minimise risk of scalding.	Slightly	Slightly	x
PPE (gloves, safety glasses) will be worn to working with the heat block.	Slightly	Slightly	x
Lab users will be fully trained to use the equipment	Slightly	Slightly	x

Process Risk Assessment Form (Continued)

Signage will be in place to indicate the equipment is in use.	Slightly	Slightly	x

Residual Risk: Low

People / Groups at risk	Everyone in the room	
		x

Enter risk details here:-	Impact	Probability	Risk Score
Hazardous substances	Harmful	Highly Unlikely	Low

What are the control measures?	Lowers Impact	Lowers Probability	+
All relevant Risk assessments and/or BRA's will be completed before using the heat block.	Moderately	Moderately	x
Users will ensure the eppendorf lids are secure before placing into the blocks.	Moderately	Slightly	x
Thermometer and a warning sign to indicate current use of Heat block to other lab users	Moderately	Moderately	x
No more than 1ml of sample per 1.5ml eppendorf tube.	Slightly	Moderately	x
Use of appropriate PPE such as safety goggles, lab coat, gloves.	Significantly	Moderately	x

Residual Risk: Low

People / Groups at risk	Operator only	
		x

Enter risk details here:-	Impact	Probability	Risk Score
Electrical test labels	Harmful	Unlikely	Medium

What are the control measures?	Lowers Impact	Lowers Probability	+
Before use, check that the heat block is PAT tested, and looks in good working order.	Slightly	Moderately	x
All electrical equipment in the area is PAT tested annually to ensure electrical safety, and a quick 'visual inspection' is carried out before any work begins. This ensures that any damage to equipment casing or wires which could lead to them being unsafe is checked before use. Upon discovering damage, technicians take the equipment out of use using a 'lock out tag out' system.	Significantly	Significantly	x

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
Academic Staff	0	0	0	0	0	0	0
Technical Staff	0	1	0	0	0	0	1
Research Staff (PDRA)	0	0	0	0	0	0	0

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
Research Students (PhD)	0	0	0	0	0	0	0
Students (Undergraduate / MSc)	0	1	1	0	0	0	2
Visitors	0	0	0	0	0	0	0
Others - Over-type as needed	0	0	0	0	0	0	0
Total	0	2	1	0	0	0	3

With these controls in place, the risk is:

The activity is LOW RISK - and is effectively controlled

Loughborough University
Center for Biological Engineering
Safety Method Statement

Loughborough University

Reference SAF/MEME6875

Location CBE

Originator Jen Bowdrey

Project / Activity / Task Use and Maintenance of the Heat Block

What equipment will be used in this activity?	+
Heat Block- Grant QBD2 (H34)	x
Heat Block- Grant QBA2 (H25)	x

What training must be completed to do this activity?	+
General laboratory training	x
This risk assessment will have been read	x
Training to use the equipment	x

What chemicals are being used? (These must be included in the COSHH Form)	+
Any chemicals or biological agents will be Risk assessed separately	x

Spill and accident procedures.	+
See SOP038- biological spills	x
If spill is on the block heater- turn off the block heater, remove the samples, and follow the protocol in SOP038 biological spills, or if it involves chemicals follow the COSHH form. Accidents will be reported through the University SHE report scheme.	x

Procedure in the event of an emergency. (How to leave the process in a safe condition in such an event)	+
Turn heat block off, remove samples if needed and follow any local procedures for evacuating the lab.	x

References.	+
See manuals- can be found online.	x
See SOP038- biological spills	x

Detailed sequential description of the process

Process step	Precautionary measures and comments	+
Turn on the Block heater at the wall, and also on the device itself.	Make sure that the plug and cable are in good working order.	x
For the GrantQBA2 heater- use the dial to alter the temperature, leave theblock heater to reach the required temperature.	Leave a sign to notify other lab users that the Block heater is in use.	x
For the GrantQBD2 heater, once turned on press the S button and alter the temperature to the required temperature, and leave to reach required temperature.	Leave a sign to notify other lab users that the Block heater is in use.	x
	Wear PPE	x
Before putting in the samples make sure that the eppendorf tubes are properly closed.	This avoids any samples from opening when heating.	x

Safety Method Statement (Continued)

Process step	Precautionary measures and comments	+
Use the appropriate equipment to put samples into the heat block and also to remove from the heat block.	This helps to prevent burns to the user.	x
		x
Once finished with the heat block, make sure it is turned off.	This protects other lab users from accidently burning themselves.	x

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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: Carolyn Kavanagh — Digitally signed by Carolyn Kavanagh
Date: 2021.07.27 13:57:38 +01'00'

Form Reference Numbers

Risk Assessment	Method Statement	COSHH Assessment
SAF/MEME6875	SAF/MEME6875	

DSO Signature: Digitally signed by David Green
Date: 2021.08.03 08:43:57 +01'00'
Adobe Acrobat Reader version: 2021.005.20058

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: 27/07/2022

Review comments