

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 [-] 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	Centre for Biological Engineering
Department	
Originator name	Jen Bowdrey
email address	cgjb2@lboro.ac.uk
Location	Garendon Wing, HolyWell Park
Project / Activity / Task	Use of the Applied Biosystems StepOne Real-Time PCR system and the Applied Biosystems 96 well fast thermal cycler.
Supervisor Name	Carolyn Kavanagh

Risk Assessment

Reference

Location

Originator

Project / Activity / Task

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		+
		Direct contact		x
Category 2: Workplace				
Slips/Trips/Falls on the level				x
Category 3: Hazardous and/or Harmful substances				
Irritant substances				x
Biological substances (Infection)				x
				x
Category 4: Work activity				
Lone working out of hours				x
Category 5: Work organisation				
Contractors/Service				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="Biological substances"/>	<input type="text" value="Slightly Harmful"/>	<input type="text" value="Highly Unlikely"/>	Low	
What are the control measures?	Lowers Impact	Lowers Probability	+	
<input type="text" value="As these machines will be used with nucleic acids purified from cell cultures, there is a possibility of infection from these biological substances albeit minimal. Biological material has good provenance and an approved Biological Risk Assessment. Users will be protected with PPE (inc coat, glasses and safety glasses). Users are fully trained so competent in the proper use of handling biological substances."/>	<input type="text" value="Slightly"/>	<input type="text" value="Slightly"/>	x	
				Residual Risk
				<input type="text" value="Low"/>

Process Risk Assessment Form (Continued)

People / Groups at risk	Operator only		X
Enter risk details here:-	Impact	Probability	Risk Score
Electrical Hazards- risk of electrocution	Harmful	Unlikely	Medium
What are the control measures?	Lowers Impact	Lowers Probability	+
All equipment is PAT tested every two years and is CE marked. Leads and connectors are visually checked before use.	Significantly	Significantly	x
			Residual Risk
			Low
People / Groups at risk	Operator only		X
Enter risk details here:-	Impact	Probability	Risk Score
Direct contact	Harmful	Unlikely	Medium
What are the control measures?	Lowers Impact	Lowers Probability	+
The electrical hazards are only present within the enclosed machines. The machine is PAT tested, and no staff or students will be permitted to disassemble the machine.	Slightly	Slightly	x
All users are competent to use the equipment, having undergone training	Moderately	Moderately	x
			Residual Risk
			Low
People / Groups at risk	Operator only		X
Enter risk details here:-	Impact	Probability	Risk Score
Irritant substances	Harmful	Unlikely	Medium
What are the control measures?	Lowers Impact	Lowers Probability	+
All hazardous substances will require a COSHH form, before being ordered and then used, including any reagents required for these machines. It is the responsibility of the user to ensure that they are aware of any hazards involved with substances that may be use with these machines.	Moderately	Slightly	x
Users will be protected with PPE (gloves/safety glasses) and are trained in the proper use and handling of hazardous substances.	Moderately	Moderately	x
			Residual Risk
			Low
People / Groups at risk	Other - Please overtype		X
Enter risk details here:-	Impact	Probability	Risk Score
Lone working	Slightly Harmful	Highly Unlikely	
What are the control measures?	Lowers Impact	Lowers Probability	+
All users have an out of hours approved risk assessment and can only work out of hours when fully trained. Lone working app will be used.	Moderately	Moderately	x
			Residual Risk
			Low

Process Risk Assessment Form (Continued)

People / Groups at risk	Operator and people in proximity		X
Enter risk details here:-	Impact	Probability	Risk Score
slips trips and falls	Slightly Harmful	Highly Unlikely	
What are the control measures?	Lowers Impact	Lowers Probability	+
Care to ensure safe working area. Spills cleaned up immediately in accordance with CBE SOP 038	None	Moderately	X
			Residual Risk
			Low
People / Groups at risk	Everyone in the room		X
Enter risk details here:-	Impact	Probability	Risk Score
Exposure to Covid-19	Very Harmful	Highly Unlikely	Medium
What are the control measures?	Lowers Impact	Lowers Probability	+
Follow all national, local and University Covid-19 guidelines, and respect local Lab rules. Wear face coverings in communal areas or close proximity Social distancing of 2 metres to be maintained or 1M+ with mitigation. Check local Covid tier rating	None	Moderately	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	0	0	0	0	0	0
Research Staff (PDRA)	0	0	0	0	0	0	0
Research Students (PhD)	0	2	0	0	1	0	3
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	2	0	0	1	0	3

With these controls in place, the risk is:

Process Risk Assessment Form (Continued)

The activity is LOW RISK - and is effectively controlled

Safety Method Statement

Reference SAF/MEME/6684

Location Garendon Wing, HolyWell Park Originator Jen Bowdrey

Project / Activity / Task Use of the Applied Biosystems StepOne Real-Time PCR system and the Applied Biosystems 96 well fast thermal cycler.

What equipment will be used in this activity?	+
Applied Biosystems StepOne Real-Time PCR System	X
Applied Biosystems 96 well Fast Thermal Cyclers	X

What training must be completed to do this activity?	+
Lab user training	X
Training from designated person for use of the PCR machines	X

What chemicals are being used? (These must be included in the COSHH Form)	+
Reagents will be COSHHed separately	X

Spill and accident procedures.	+
See spill SOP038 and follow stated procedures. All Accidents and near misses must be reported via the University online system.	X
See COSHH forms for specifics for each chemical	X

Procedure in the event of an emergency. (How to leave the process in a safe condition in such an event)	+
In the event of emergency close thermal cyclers and exit lab using correct routes. When safe to return, finish set up, or turn off if finished	X

References.	+
SOP038- Biological Spill Response	X
The PCR user manuals - there is a copy in the office, or they can be found on line.	X
SOP056	X
SOP191	X

Detailed sequential description of the process

Process step	Precautionary measures and comments	
Turn on the PCR machine, and depending on the machine you are using, follow the programs to set up the PCR program you want to run. See user manual for specifics.	Visually check leads and connectors for damage. Put on PPE. It is best practice to set up plate map and program on the PCR machine you are going to use before you set up your plate. As it means that you can sort out any problems with the PCR machine before hand, and you can put the PCR plate straight on.	X
Putting plate into the machines, open up the PCR machine, where the plate goes into. Make sure that the PCR plate is firmly closed. This prevents your sample from evaporating. Put plate in and close. Start the program.	Before leaving the PCR machine, check that you are using the correct program. Then make sure that program has started and the temperature is going up.	X

Safety Method Statement (Continued)

Process step	Precautionary measures and comments	+
Once the program has finished, remove the plate. The plate can either be stored in the fridge or thrown away. Turn the PCR machine off, once finished with.	Cleanse, leave area	X

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/6684

Method Statement

SAF/MEME/6684

COSHH Assessment

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:

2 Feb 2021

Review comments