

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	Centre for Biological Engineering
Originator name	Carolyn Kavanagh
email address	c.l.kavanagh@lboro.ac.uk
Location	H34, Centre for Biological Engineering
Project / Activity / Task	Use of the Prestige Classic Bench Top Autoclave
Supervisor Name	Mark Taylor

Risk Assessment

Reference

Location

Originator

Project / Activity / Task

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

Category 1: Workplace	+
Localised hot surfaces	x
Category 2: Hazardous and/or Harmful substances	+
Substances under high pressure	x
Substances at high temperature	x
Category 3: Activity	+
	x
Category 4: 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="Risk of crushing of fingers between door and chamber"/>	<input type="text" value="Harmful"/>	<input type="text" value="Highly Unlikely"/>	Low	
What are the control measures?	Lowers Impact	Lowers Probability	+	
<input type="text" value="All Laboratory users have specific training on how to use the autoclaves safely and are made aware of the hazards. This training is detailed in the training file."/>	<input type="text" value="Significantly"/>	<input type="text" value="Significantly"/>	x	
<input type="text" value="The door to the autoclave needs to be manually closed by the operator so minimal risk of door closing on fingers by a mechanical means."/>	<input type="text" value="Significantly"/>	<input type="text" value="Significantly"/>	x	
			Residual Risk	
			Low	
People / Groups at risk	<input type="text" value="Operator only"/>			x
Enter risk details here:-	Impact	Probability	Risk Score	
<input type="text" value="Electrical shock from using equipment"/>	<input type="text" value="Harmful"/>	<input type="text" value="Highly Unlikely"/>	Low	
What are the control measures?	Lowers Impact	Lowers Probability	+	
<input type="text" value="Equipment has two yearly PAT testing and visual checks of cables and plug."/>	<input type="text" value="Significantly"/>	<input type="text" value="Significantly"/>	x	

Process Risk Assessment Form (Continued)

			Residual Risk
			Low
People / Groups at risk	Operator only		X
Enter risk details here:-	Impact	Probability	Risk Score
Risk of burns or scalding from hot surfaces	Harmful	Likely	High
What are the control measures?	Lowers Impact	Lowers Probability	+
Laboratory users are given specific training on what PPE to use and how to use the autoclaves safely. Procedure detailed in SOP011. Training is recorded in training files.	Significantly	Significantly	X
Specific PPE is supplied (orange heat resistant gloves, safety glasses).	Significantly	Significantly	X
The Autoclaves will not open at extreme high temperatures.	Significantly	Significantly	X
			Residual Risk
			Low
People / Groups at risk	Everyone in the room		X
Enter risk details here:-	Impact	Probability	Risk Score
Risk of explosion due to being a pressure vessel	Harmful	Unlikely	Medium
What are the control measures?	Lowers Impact	Lowers Probability	+
Autoclave undergoes pressure vessel inspection every 12 months as preventative maintenance to identify potential risks.	Significantly	Significantly	X
Laboratory users are trained how to use the autoclave correctly and safely to avoid creating a dangerous situation.	Significantly	Significantly	X
			Residual Risk
			Low
People / Groups at risk	Operator and people in proximity		X
Enter risk details here:-	Impact	Probability	Risk Score
Mis-use of autoclave	Harmful	Unlikely	Medium
What are the control measures?	Lowers Impact	Lowers Probability	+
All CBE Laboratory users are trained on the use of the autoclaves and associated hazards and consequences of mis-use.	Moderately	Moderately	X
Autoclave used for sterilisation of equipment only	Significantly	Significantly	X
			Residual Risk
			Low
+ Add another Risk			

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/MM6395

Location H34, Centre for Biological Engineering

Originator Carolyn Kavanagh

Project / Activity / Task Use of the Prestige Classic Bench Top Autoclave

What equipment will be used in this activity?

Prestige Classic Bench top autoclave	+
de-ionised water	x

What training must be completed to do this activity?

Autoclave training	+
	x

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

None	+
	x

Spill and accident procedures.

SOP038 Spill Response offers guidance on how to deal with spills. Any accidents must be reported through the University accident reporting procedures.	+
	x

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

If it has not been possible to turn off the autoclave (if cycle was running) before leaving the laboratory inform emergency services about pressure vessel in operation.	+
	x

References.

SOP011	+
	x

Detailed sequential description of the process

Process step	Precautionary measures and comments	
Fill the unit to the water level line on the inside of the chamber with 0.75l of distilled or de-ionised water. NOTE: Do not use tap water or overfill. Do not add ANY chemicals whatsoever to the water	Always check if a load is already inside the autoclave . Wear PPE .	+
Place equipment to be sterilized into the instrument basket. Ensure the metal "V" support is placed in the bottom of the autoclave to prevent instruments coming into contact with water.		x
Place lid on autoclave so that black arrows align .Turn lid in a clockwise direction ensuring lid is completely closed .	Ensure that lid is correctly fitted before turning on.	x
Start sterilising cycle by pressing the power button (controls are detailed in the manual)	CAUTION: Body and lid of autoclave will become hot when in use. DO NOT TOUCH CAUTION: DO NOT ATTEMPT TO REMOVE LID DURING OPERATION. DO NOT open the depressurisation valve during sterilisation cycle. Either of these actions could cause SEVERE BURNS	x

Safety Method Statement (Continued)

Process step	Precautionary measures and comments	+
The sterilising cycle is complete when the buzzer sounds and the lights adjacent to the "tick" button and the power button are lit green NOTE: Although the sterilising cycle is complete, it is still not safe to open the autoclave until the system has depressurised and cooled		X
Once the pressure has been released the lid may be removed by turning in an anti-clockwise direction CAUTION: Items in the autoclave may still be hot, risk of burns	wear PPE	X
Full details in SOP011		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/MM6395

Method Statement

SAF/MM6395

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:

12/01/2021

Review comments