Loughborough University Centre for Biological Engineering



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.

<u>Buttons</u>: [+] 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 <u>MUST NOT</u> START ANY PRACTICAL WORK UNTIL THESE FORMS HAVE BEEN RETURNED TO YOU WITH **BOTH** YOUR SUPERVISOR'S AND DSO'S APPROVAL SIGNATURES ATTACHED.

Please compl	ete 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 Laboratory Area and T208b (Wolfs
Project / Activity / T	Task Use and Maintenance of -80 Freezers
Supervisor Name	Mark Taylor

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Loughborough University Centre for Biological Engineering



Risk Assessment

Reference	SAF/MM6394

Location	H34 , Centre for Biological Engineering Laboratory Ar	Originator	Carolyn Kavanagh
Project / Activity / Task	Use and Maintenance of -80 Freezers		

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

Category 1: Workplace	+
Falling/moving objects/materials	x
Storage and Stacking	x
Localised cold surfaces	x
	x
Category 2: Hazardous and/or Harmful substances	+
Biological substancees (Infection)	x
Other Substance related hazard (reagents with hazardous components)	x
Flammable substances	x
Category 3: Activity	+
Lone working out of hours	x
Category 4: Organisation	+
	X

Explain the risks associated with these hazards

People / Groups at risk Operator only				X	
Enter risk details here:-	Impact	Probability	Risk S	core	
Risk of Infection from biological material	Harmful	Highly Unlikely		Low	
What are the control measures?	Lowers Impact	Lowers Probability	+		
All Biological material is of a good provenance and screened for infectious agents. Any material which is not screened is used under special quarantined controlled conditions.	Significantly	Significantly	x		
All Laboratory users wear gloves at all times and other PPE as appropriate	Significantly	Significantly	x		
All biological material in the -80 Freezers is contained in secondary containers and in a frozen state.	Significantly	Significantly	X		
Only authorised workers have access to the freezer	Significantly	Significantly	x		
			Resid	dual Risk	
				Low	

Process Risk Assessment Form (Continued)

People / Groups at risk Operator only				X
Enter risk details here:-	Impact	Probability	Risk Score	
Electrical shock from using equipment	Harmful	Highly Unlikely	l	Low
What are the control measures?	Lowers Impact	Lowers Probability	+	
Equipment has 2 yearly PAT testing and visual checking of cables and plug	Significantly	Significantly	x	
			Resid	lual Risk
			L	_ow
People / Groups at risk Operator only				X
Enter risk details here:-	r risk details here:- Impact Probability		Risk Sc	core
Handling cold surfaces	Slightly Harmful	Likely	Mε	edium
What are the control measures?	e control measures? Lowers Impact Lowers Probability +		+	
Laboratory users are provided with blue thermal insulated gloves to wear to protect hands when handling items from the -80 freezer	Significantly	Significantly	x	
Laboratory users are trained to wear the appropriate PPE	Significantly	Significantly	x	
			Resid	lual Risk
			L	_OW
People / Groups at risk Operator and people in proximity				X
Enter risk details here:-	Impact	Probability	Risk Sc	core
Risk of falling items from the -80 freezer	Slightly Harmful	Likely	Me	edium
What are the control measures?	t are the control measures? Lowers Impact Lowers Probability			
Material stored in the -80 freezers should be stored in labeled boxes where possible and/or stacked neatly.	Moderately	Moderately	x	
, and the second			Resid	lual Risk
			L	_ow
People / Groups at risk Operator only				X
Enter risk details here:-	Impact	Probability	Risk Sc	core
Working out of hours	Slightly Harmful	Likely	Me	edium
What are the control measures?	Lowers Impact	Lowers Probability	+	
Laboratory users are fully trained before authorised access is given to the labs. Part of the training includes out of hours procedures. They also have to complete an out of hours risk assessment stating the work they intend to do.	Significantly	Significantly	x	
				lual Risk
			L	_ow
People / Groups at risk Everyone in the room				x
Enter risk details here:-	Impact	Probability	Risk Sc	ore
Risk of fire from storage of flammable substances		Likely	ŀ	High

Process Risk Assessment Form (Continued)

What are the control measures?	Lowers Impact	Lowers Probability	+	
Freezers should be spark free .If they are not spark free laboratory users are trained not to store flammable substances in them. Hazardous materials should be listed on the door.	Significantly	Significantly	x	
			Resid	lual Risk
			<u> </u>	_ow
People / Groups at risk Operator only				x
Enter risk details here:-	Impact	Probability	Risk So	core
Regeants containing hazardous components stored	Slightly Harmful	Likely	Me	edium
What are the control measures?	Lowers Impact	Lowers Probability	+	
All reagents which have a hazardous component will have a COS and be stored under correct conditions.	HH Significantly	Significantly	x	
	Resid	lual Risk		
			I	_ow
People / Groups at risk Operator only				X
People / Groups at risk Operator only Enter risk details here:-	Impact	Probability	Risk So	
	Impact Harmful	Probability Highly Unlikely		
Enter risk details here:-	11	¬I		core
Enter risk details here:- Injury due to maintenance of freezer	Harmful Lowers Impact	Highly Unlikely		core
Enter risk details here:- Injury due to maintenance of freezer What are the control measures? All Maintenance is carried out by competent persons who have received training or is qualified engineer (permit to work). Freeze are switched off (once materials have been transferred) during	Harmful Lowers Impact Significantly	Highly Unlikely Lowers Probability	+	core
Enter risk details here:- Injury due to maintenance of freezer What are the control measures? All Maintenance is carried out by competent persons who have received training or is qualified engineer (permit to work). Freeze are switched off (once materials have been transferred) during repair work. PPE (gloves, insulated gloves and safety glasses) is provided . SC	Harmful Lowers Impact Significantly PS Significantly	Highly Unlikely Lowers Probability Significantly	+ ×	core
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With these controls in place, the risk is:

The activity is LOW RISK - and is effectively controlled

Loughborough University Centre for Biological Engineering Safety Method Statement



Reference SAF/MM6394

Location	H34 , Centre for Biological Engineering Laboratory Area Originator Carolyn Kavanagh	
Project / Activity / Task	Use and Maintenance of -80 Freezers	
What equipment wil	I be used in this activity?	+
-80 Freezers (2 x Thermo	oFisher and 1 x New Brunswick in CBE) and 1 x Fryka and 1 x National Lab PMU in T208b	X
Storage boxes		X
Calibrated Thermomete	r for temperature monitoring	X
Thermal insulated glove	rs ·	X
What training must be	be completed to do this activity?	+
CBE Laboratory inductio	on training	X
What chemicals are I	being used? (These must be included in the COSHH Form)	+
None		X
Spill and accident pr	rocedures.	+
Detailed in SOP038 . All	accidents are reported through University online system	X
Procedure in the eve	ent of an emergency. (How to leave the process in a safe condition in such an event)	+
Leave the door to -80 Fr	eezer closed to maintain temperature. Alert fire service to any hazardous material stored.	X
References.		+
SOP049 Use and Mainte	nance of the -80 Freezers	X

Detailed sequential description of the process

Process step	Precautionary measures and comments	+
Please see SOP049		X

Loughborough University Centre for Biological Engineering



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

	AUTHORISE THE FORMS, lick the "Not Approved" check-box and return to bu expect them to do to put it right in the com		Not Approved
Supervisors Signature			
	Form Reference Number	'S	
Risk Assessment	Method Statement	COSHH Assessm	ent
SAF/MM6394	SAF/MM6394		
DSO Signature			
This document set must be re 1) After the first occurrence of the ac 2) After any change to the procedure 3) After any incident resulting from t	e or reagents used	_	
4) At least annually from the date of		Next Review:	12/01/2021
Review comments			

Carolyn Kavanagh 11-Mar-2020 Page 5 of 5