

Safety Documentation

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

Process 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	CBE, Holywell Park
Originator name	Keiron M Morris
email address	k.m.morris2@lboro.ac.uk
Location	H25, CBE
Project / Activity / Task	Decellularisation of Porcine Cornea's
Supervisor Name	Dr S L Wilson, Prof J R Tyrer

COSHH Form (Continued)

No Hazard Statements applicable	P310 Immediately call a POISON CENTER or doctor/physician.	X
No Hazard Statements applicable	P391 Collect spillage.	X
No Hazard Statements applicable	P501 Dispose of contents/ container to an approved waste disposal plant.	X
How will the precautions listed above be implemented?		
To be used within a Class II Lab and within a Biological Safety Cabinet		
Special Storage and Containment Measures	Disposal Method	+
	Hydrophobic organic solvent waste	X
How will spillages be dealt with?		
Spill kit		

CHEMICAL NAME Ammonium Hydroxide Solution	 	Hazard Rating High	OVERALL RISK: Medium
CAS No. 336-21-6	Amount used: 2 ml, Period of use (hrs): 0.2, The process is: Closed, Physical State: Non-Volatile Liquid	Exposure Potential Low	
W.E.L. (Itel / stel) 35ppm 15min	<input checked="" type="checkbox"/> Eyes, <input checked="" type="checkbox"/> Skin, <input type="checkbox"/> Inhaled, <input type="checkbox"/> Ingested		

Hazard Statement and Description	Precaution Statement and Description	
H315 Causes skin irritation.	P280 Wear protective gloves/protective clothing/eye protection/face protection.	X
H318 Causes serious eye damage.	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	X
H412 Harmful to aquatic life with long lasting effects.	P310 Immediately call a POISON CENTER or doctor/physician.	X
How will the precautions listed above be implemented?		
To be used within a Class II Lab and within a Biological Safety Cabinet		
Special Storage and Containment Measures	Disposal Method	+
	Aqueous waste - Check with Technician or Supervisor	X
How will spillages be dealt with?		
Spill kit		


CHEMICAL NAME DNase I	 	Hazard Rating Medium	OVERALL RISK: Low
CAS No. 9003-98-9	Amount used: 0.05 g, Period of use (hrs): 3, The process is: Closed, Physical State: Lyophilised Solid	Exposure Potential Low	
W.E.L. (Itel / stel) 0.00006mg/m	<input type="checkbox"/> Eyes, <input checked="" type="checkbox"/> Skin, <input checked="" type="checkbox"/> Inhaled, <input type="checkbox"/> Ingested		

This chemical has a high health risk associated with it.

Hazard Statement and Description	Precaution Statement and Description	
H317 May cause an allergic skin reaction.	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.	X
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.	P280 Wear protective gloves/protective clothing/eye protection/face protection.	X
No Hazard Statements applicable	P284 Wear respiratory protection.	X

COSHH Form (Continued)

No Hazard Statements applicable	P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position com	X
No Hazard Statements applicable	P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.	X
No Hazard Statements applicable	P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/p	X
Justify the use of this chemical:	This chemical is required as part of a protocol for the decellularisation process. It will be used in small quantities for a minimal time period, therefore reducing exposure time.	
How will the precautions listed above be implemented?		
To be used within a Class II Lab and within a Biological Safety Cabinet		
Special Storage and Containment Measures	Disposal Method	+
Aqueous waste - Check with Technician or Supervisor		X
How will spillages be dealt with?		
Spill kit		

CHEMICAL NAME		Hazard Rating	X
Penicillin Streptomycin Sol		Low	OVERALL RISK: Low
CAS No. 3810-74-0	Amount used: 10 ml, Period of use (hrs): 4	Exposure Potential	
W.E.L. (l/ tel / stel)	The process is: Closed, Physical State: Non-Volatile Liquid	Low	
<input type="checkbox"/> Eyes <input checked="" type="checkbox"/> Skin <input checked="" type="checkbox"/> Inhaled <input type="checkbox"/> Ingested			

This chemical has a high health risk associated with it.

Hazard Statement and Description	Precaution Statement and Description	+
H317 May cause an allergic skin reaction.	P201 Obtain special instructions before use.	X
H334 May cause allergy or asthma symptoms or breathing difficulties i	P202 Do not handle until all safety precautions have been read and understood.	X
H360FD May damage fertility. May damage the unborn child.	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.	X
No Hazard Statements applicable	P280 Wear protective gloves/protective clothing/eye protection/face protection.	X
No Hazard Statements applicable	P284 Wear respiratory protection.	X
No Hazard Statements applicable	P272 Contaminated work clothing should not be allowed out of the workplace.	X
No Hazard Statements applicable	P302 + P352 IF ON SKIN: Wash with plenty of soap and water.	X
No Hazard Statements applicable	P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.	X
No Hazard Statements applicable	P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/p	X
No Hazard Statements applicable	P308 + P313 IF exposed or concerned: Get medical advice/attention.	X
No Hazard Statements applicable	P362 Take off contaminated clothing and wash before reuse.	X
No Hazard Statements applicable	P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position com	X
Justify the use of this chemical:	This chemical is required to use in combination with PBS to store the porcine globes prior to them arriving at Loughborough University. A solution will be ready made and on arrival to collect globes, the porcine globes will be put into the solution to prevent any diseases etc.	
How will the precautions listed above be implemented?		

COSHH Form (Continued)

To be used within a Class II Lab and within a Biological Safety Cabinet		+
Special Storage and Containment Measures	Disposal Method	+
Aqueous waste - Check with Technician or Supervisor		x
How will spillages be dealt with?		
Spill kit		

CHEMICAL NAME		Hazard Rating High	OVERALL RISK: Medium
Sodium dodecyl sulfate			x
CAS No. 151-21-3	Amount used: 1 ml Period of use (hrs): 20 The process is: Closed Physical State: Non-Volatile Liquid	<input checked="" type="checkbox"/> Eyes <input checked="" type="checkbox"/> Skin <input checked="" type="checkbox"/> Inhaled <input checked="" type="checkbox"/> Ingested	Exposure Potential Low
W.E.L. (l/ tel / stel)			

Hazard Statement and Description	Precaution Statement and Description	+
H228 Flammable solid.	P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.	x
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.	P261 Avoid breathing dust/fume/gas/mist/vapours/spray.	x
H315 Causes skin irritation.	P280 Wear protective gloves/protective clothing/eye protection/face protection.	x
H318 Causes serious eye damage.	P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.	x
H335 May cause respiratory irritation.	P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.	x
H412 Harmful to aquatic life with long lasting effects.	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	x
No Hazard Statements applicable	P310 Immediately call a POISON CENTER or doctor/physician.	x
No Hazard Statements applicable	P370 + P378 In case of fire: Use ... for extinction.	x

How will the precautions listed above be implemented?

To be used within a Class II Lab and within a Biological Safety Cabinet

Special Storage and Containment Measures	Disposal Method	+
Aqueous waste - Check with Technician or Supervisor		x
How will spillages be dealt with?		
Spill kit		

+ Add another chemical

Statement of work (Process to be undertaken)

Corneal enucleation (removal of the eye) to be performed at abattoir, on food-grade pigs. Porcine globes are to be collected and stored in a vacuum-sealed container:

- In a vacuum-sealed packaging or;
- In pre-prepared and pre-supplied PBS & 2% v/v A&A solution.

The following standard laboratory procedures will be used:

- Sterile medium and medium supplements will be prepared as per manufacturer's instructions within a Class II Biological Safety Cabinet
- The use of the autoclave to sterilise lab-ware and to decontaminate biological waste.

Show Image

COSHH Form (Continued)

Personal protection requirements not covered in the precaution statements above.

Minimal quantities of reagents to be used, all at low concentration. All decellularisation steps to be performed in sealed vessels

Sources of information and references

Reference to **existing approved** Risk Assessment

Sigma Aldrich MSDS information. Thermofisher MSDS, BioColour kit information

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

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

Method Statement

COSHH Assessment

CBE 308-313

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:

09/06/2020

Review comments