

## Safety Documentation

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

**Method Statement**                       **Risk Assessment**                       **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	Oliver George Frost
email address	o.g.frost@lboro.ac.uk
Location	CBE Labs
Project / Activity / Task	Measurement of cell viability using crystal violet assay.
Supervisor Name	Prof Rob J Thomas


### COSHH Form

Reference SAF/MEME/2117,2118

Location CBE Labs

Originator Oliver George Frost


Project / Activity / Task Measurement of cell viability using crystal violet assay.

<b>CHEMICAL NAME</b>						Hazard Rating <span style="border: 1px solid black; padding: 2px;">High</span>	<b>OVERALL RISK:</b>  <span style="border: 1px solid black; padding: 5px; font-weight: bold; color: green;">Low</span>
<b>Crystal Violet Staining Solution</b>	CAS No. <span style="border: 1px solid black; padding: 2px;">548-62-9</span>	Amount used <span style="border: 1px solid black; padding: 2px;">40</span> <span style="border: 1px solid black; padding: 2px;">ml</span>	Period of use (hrs) <span style="border: 1px solid black; padding: 2px;">0.1</span>	The process is: <span style="border: 1px solid black; padding: 2px;">Semi Closed</span>	Physical State <span style="border: 1px solid black; padding: 2px;">Lyophilised Solid</span>	Exposure Potential <span style="border: 1px solid black; padding: 2px;">Low</span>	
W.E.L. (Itel / stel) <span style="border: 1px solid black; padding: 2px;"></span>	<input checked="" type="checkbox"/> Eyes <input type="checkbox"/> Skin <input type="checkbox"/> Inhaled <input checked="" type="checkbox"/> Ingested						

This chemical has a high health risk associated with it.

Hazard Statement and Description	Precaution Statement and Description	+
H302 Harmful if swallowed.	P201 Obtain special instructions before use.	X
H318 Causes serious eye damage.	P202 Do not handle until all safety precautions have been read and understood.	X
H351 Suspected of causing cancer.	P280 Wear protective gloves/protective clothing/eye protection/face protection.	X
H410 Very toxic to aquatic life with long lasting effects.	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove	X
	P310 Immediately call a POISON CENTER or doctor/physician.	X
	P308 + P313 IF exposed or concerned: Get medical advice/attention.	X
	P405 Store locked up.	X
	P501 Dispose of contents/container to ...	X
	P273 Avoid release to the environment.	X
	P391 Collect spillage.	X
Justify the use of this chemical:	Measure of cell viability of cultured cells after senolytic treatment, no alternative as needs consistency with previous work, small quantities will be used and appropriate PPE specified.	
How will the precautions listed above be implemented?		
The work will occur in a ducted BSC. Small amounts will be added to the cultured cells and then measured with plate reader.		
Special Storage and Containment Measures	Disposal Method	+
Stored in a locked cabinet at room temperature.	Cytotoxic liquid. Not autoclaved. Must be removed and placed in Gas Pod 2 when work is complete. Use suitable disposable winchester bottles and label for collection, at each time the bottle is moved it should be placed in a bottle holder. SOP039.	X
How will spillages be dealt with?	<i>Please note: any material used to clean up a spill of hazardous material must also be disposed of as hazardous material.</i> <a href="#">Click here to see spill procedures</a>	
Other - Chemical spill kit and refer to SOP 039.		

COSHH Form (Continued)

<b>CHEMICAL NAME</b> <b>Solubilisation solution</b>			Hazard Rating <b>High</b>	<b>X</b>	<b>OVERALL RISK:</b> <b>Low</b>
CAS No. 151-21-3	Amount used 100 ml	Period of use (hrs) 0.1	The process is: Semi Closed	Physical State: Non-Volatile Liquid	
W.E.L. (Itel / stel)				<input checked="" type="checkbox"/> Eyes <input type="checkbox"/> Skin <input type="checkbox"/> Inhaled <input type="checkbox"/> Ingested	Exposure Potential <b>Low</b>

Hazard Statement and Description	Precaution Statement and Description	
H318 Causes serious eye damage.	P280 Wear protective gloves/protective clothing/eye protection/face protection.	<b>X</b>
	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove	<b>X</b>
	P310 Immediately call a POISON CENTER or doctor/physician.	<b>X</b>

How will the precautions listed above be implemented?  
Appropriate PPE will be worn when this assay is being used.

Special Storage and Containment Measures	Disposal Method	
Room temperature in the kit box.	Aqueous waste - cytotoxic liquid. Not autoclaved. Must be removed and placed in Gas Pod 2 when work is complete. Use suitable disposable winchester bottle and label for collection, at each time the bottle is moved it must be placed in a bottle holder. SOP039.	<b>X</b>
How will spillages be dealt with?	<i>Please note: any material used to clean up a spill of hazardous material must also be disposed of as hazardous material.</i> <a href="#">Click here to see spill procedures</a>	

Chemical Spill Kit and refer to SOP 039.

[+ Add another chemical](#)

Statement of work (Process to be undertaken)

Cell viability will be measured on cultured cells after senolytic treatment using the crystal violet assay. All of this work is to take place in fume hood or ducted BSC. **Show image**

Personal protection requirements not covered in the precaution statements above.

PPE including lab coat, shoe covers, gloves, goggles.

Sources of information and references

Safety Data Sheet MERCK

Reference to **existing approved** Risk Assessment

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

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

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:

Review comments