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	Elimination of senescent (old) cells in cultured cells.
Supervisor Name	Prof Rob J Thomas

Version : 2.34

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Loughborough University
Centre for Biological Engineering

COSHH Form

Reference: SAF/MEME/2132-2134

Location: CBE Labs

Originator: Oliver George Frost

Project / Activity / Task: Elimination of senescent (old) cells in cultured cells.

CHEMICAL NAME

Artesunate

CAS No. 88495-63-0

W.E.L. (Itel / stel)

Amount used		Period of use (hrs)	The process is:	Physical State		Exposure Potential	Hazard Rating
5	g	0.1	Semi Closed	Lyophilised Solid	☐ Eyes ☑ Skin ☑ Inhaled ☑ Ingested	Low	High

OVERALL RISK: **Medium**

Hazard Statement and Description	Precaution Statement and Description
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inh	P280 Wear protective gloves/protective clothing/eye protection/face protection.
	P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
	P312 Call a POISON CENTER or doctor/physician if you feel unwell.
	P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position com

How will the precautions listed above be implemented?

The work will occur in a ducted BSC. Once dissolved, the solution will be aliquoted and small amounts (1-50ul) will be used for the addition to cultured cells for their elimination.

Special Storage and Containment Measures	Disposal Method
Dissolve in sodium bicarbonate and aliquots stored at -20C.	Biological waste through cell work. Aspirate and virkon, reference SOP003.

How will spillages be dealt with?

Please note: any material used to clean up a spill of hazardous material must also be disposed of as hazardous material.
Click here to see spill procedures

Absorbent cloth / tissue refer to SOP038.

CHEMICAL NAME

Artemether

CAS No. 71963-77-4

W.E.L. (Itel / stel)

Amount used		Period of use (hrs)	The process is:	Physical State		Exposure Potential	Hazard Rating
5	g	0.1	Semi Closed	Lyophilised Solid	☐ Eyes ☐ Skin ☐ Inhaled ☑ Ingested	Low	Medium

OVERALL RISK: **Low**

Hazard Statement and Description	Precaution Statement and Description
H302 Harmful if swallowed.	P264 Wash … thoroughly after handling.
	P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unw

How will the precautions listed above be implemented?

The work will occur in a ducted BSC. Once dissolved, the solution will be aliquoted and small amounts (1-50ul) will be used for the addition to cultured cells for their elimination.

Special Storage and Containment Measures	Disposal Method
Dissolve in sodium bicarbonate and aliquots stored at -20C.	Biological waste through cell work. Aspirate and virkon, reference SOP003.

COSHH Form (Continued)

How will spillages be dealt with?	*Please note: any material used to clean up a spill of hazardous material must also be disposed of as hazardous material.* *Click here to see spill procedures*
Absorbent cloth / tissue refer to SOP038.	

CHEMICAL NAME

Sodium Bicarbonate

CAS No. 144-55-8

W.E.L. (Itel / stel)

Amount used		Period of use (hrs)	The process is:	Physical State		Hazard Rating	X
25	mg	0.1	Semi Closed	Lyophilised Solid	Eyes, Skin, Inhaled, Ingested	Low	**OVERALL RISK:** Low

Hazard Statement and Description	Precaution Statement and Description	
No Hazard Statements applicable	No Precaution statements applicable	x
How will the precautions listed above be implemented?		
Work will occur in a the fume hood. Once dissolved, will be used to dissolve the senolytic compounds.		
Special Storage and Containment Measures	Disposal Method	+
Room temperature in the compounds bottle.	Biological waste through cell work. Aspirate and virkon, reference SOP003.	x
How will spillages be dealt with?	*Please note: any material used to clean up a spill of hazardous material must also be disposed of as hazardous material.* *Click here to see spill procedures*	
Absorbent cloth / tissue refer to SOP038.		

+ Add another chemical

Statement of work (Process to be undertaken)

Senescent cells will be killed using a range of concentrations of this chemical. **Show image**

Personal protection requirements not covered in the precaution statements above.

PPE including labcoat, gloves and shoe covers.

Sources of information and references

Safety Data Sheet ThermoFisher Scientific

Reference to **existing approved** Risk Assessment

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: Rob Thomas — Digitally signed by Rob Thomas Date: 2023.11.06 10:12:52 Z

Form Reference Numbers

Risk Assessment	Method Statement	COSHH Assessment
		SAF/MEME/2132-2134

DSO Signature: Keven G Smith — Digitally signed by Keven G Smith Date: 2023.11.21 12:38:16 Z

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: 21 Nov 2024

Review comments