

## 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	Isolation of RNA using Quick RNA Miniprep Kit (200 tests)
Supervisor Name	Prof Rob J Thomas



### COSHH Form

Reference SAF/MEME/2125-2127

Location CBE Labs

Originator Oliver George Frost

Project / Activity / Task Isolation of RNA using Quick RNA Miniprep Kit (200 tests)

<b>CHEMICAL NAME</b>					Hazard Rating	<b>X</b>
<b>RNA Lysis Buffer contains guanidinium thiocyanate</b>	 				High	
CAS No. <span style="border: 1px solid black; padding: 2px;">593-84-0</span>	Amount used	Period of use (hrs)	The process is:	Physical State	<input checked="" type="checkbox"/> Eyes <input checked="" type="checkbox"/> Skin <input checked="" type="checkbox"/> Inhaled <input checked="" type="checkbox"/> Ingested	Exposure Potential <b>Low</b>
W.E.L. (Itel / stel) <span style="border: 1px solid black; padding: 2px;"></span>	<span style="border: 1px solid black; padding: 2px;">400</span> <span style="border: 1px solid black; padding: 2px;">ml</span>	<span style="border: 1px solid black; padding: 2px;">0.1</span>	<span style="border: 1px solid black; padding: 2px;">Semi Closed</span>	<span style="border: 1px solid black; padding: 2px;">Non-Volatile Liquid</span>		



Hazard Statement and Description	Precaution Statement and Description	+
H314 Causes severe skin burns and eye damage.	P260 Do not breathe dust/fume/gas/mist/vapours/spray.	X
H318 Causes serious eye damage.	P280 Wear protective gloves/protective clothing/eye protection/face protection.	X
H302 Harmful if swallowed.	P273 Avoid release to the environment.	X
H312 Harmful in contact with skin.	P264 Wash ... thoroughly after handling.	X
H332 Harmful if inhaled.	P272 Do not eat, drink or smoke when using this product.	X
H412 Harmful to aquatic life with long lasting effects.	P271 Use only outdoors or in a well-ventilated area.	X
	P306 + P360 IF ON CLOTHING: rinse immediately contaminated clothing and skin with	X
	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
	P321 Specific treatment (see ... on this label).	X
	P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwe	X
	P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position com	X
	P363 Wash contaminated clothing before reuse.	X
	P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.	X
	P362 Take off contaminated clothing and wash before reuse.	X
	P501 Dispose of contents/container to ...	X

How will the precautions listed above be implemented?  
 The work will occur in a fume hood. The solution will be only be used in very small amounts (<600ul) will be used for the RNA lysis to occur.

Special Storage and Containment Measures	Disposal Method	+
Stored at room temperature in Kit Box.	Aqueous waste - Use suitable disposable winchester bottles and label for collection, at each time the bottle is moved use 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. <a href="#">Click here to see spill procedures</a></i>	

# COSHH Form (Continued)

Other - Chemical Spill Kit and refer to SOP 039.

<b>CHEMICAL NAME</b> RNA Prep Buffer, contains guanidinium chloride and						Hazard Rating High		<b>OVERALL RISK:</b> Low						
CAS No.	50-01-1 / 64-17-5	Amount used	400 ml	Period of use (hrs)	0.1	The process is:	Semi Closed		Physical State	Non-Volatile Liquid	<input checked="" type="checkbox"/> Eyes	<input checked="" type="checkbox"/> Skin	<input type="checkbox"/> Inhaled	<input checked="" type="checkbox"/> Ingested
W.E.L. (Itel / stel)														



Hazard Statement and Description	Precaution Statement and Description	
H225 Highly flammable liquid and vapour.	P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.	X
H302 Harmful if swallowed.	P280 Wear protective gloves/protective clothing/eye protection/face protection.	X
H315 Causes skin irritation.	P233 Keep container tightly closed.	X
H319 Causes serious eye irritation.	P242 Use only non-sparking tools.	X
	P243 Take precautionary measures against static discharge.	X
	P270 Do no eat, drink or smoke when using this product.	X
	P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.	X
	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
	P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.	X
	P332 + P313 If skin irritation occurs: Get medical advice/attention.	X
	P337 + P313 If eye irritation persists: Get medical advice/attention.	X
	P370 + P378 In case of fire: Use CO2, powder or water spray for extinction.	X
	P403 Store in a well-ventilated place.	X
	P501 Dispose of contents/container to ...	X

How will the precautions listed above be implemented?

The work will occur in a fume hood. The solution will be only be used in very small amounts (<600ul) will be used for the RNA lysis to occur.

Special Storage and Containment Measures	Disposal Method	
At room temperature in the kit box.	Aqueous waste - Use suitable disposable winchester bottles and label for collection, at each time the bottle is moved use 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. <a href="#">Click here to see spill procedures</a></i>	

Other - Chemical Spill Kit and refer to SOP 039.

<b>CHEMICAL NAME</b> Ethanol (99%+)						Hazard Rating High		<b>OVERALL RISK:</b> Low						
CAS No.	64-17-5	Amount used	1 l	Period of use (hrs)	0.1	The process is:	Semi Closed		Physical State	Volatile Liquid	<input checked="" type="checkbox"/> Eyes	<input type="checkbox"/> Skin	<input type="checkbox"/> Inhaled	<input type="checkbox"/> Ingested
W.E.L. (Itel / stel)														

# COSHH Form (Continued)

Hazard Statement and Description	Precaution Statement and Description	
H225 Highly flammable liquid and vapour.	P280 Wear protective gloves/protective clothing/eye protection/face protection.	X
H319 Causes serious eye irritation.	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove	X
	P337 + P313 If eye irritation persists: Get medical advice/attention.	X
	P403 + P233 Store in a well-ventilated place. Keep container tightly closed	X
	P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminate	X
	P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.	X
How will the precautions listed above be implemented?		
The work will occur in a fume hood. The solution will be only be used in very small amounts (<600ul) will be used for the RNA washing step.		
Special Storage and Containment Measures	Disposal Method	
Room temperature in a designated locked cabinet.	Aqueous waste - Use suitable disposable winchester bottles and label for collection, at each time the bottle is moved use 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. <a href="#">Click here to see spill procedures</a></i>	
Other - Chemical Spill Kit and refer to SOP 039.		

+ Add another chemical

Statement of work (Process to be undertaken)

Isolation of RNA using Quick RNA miniprep Kit.

Show image

Personal protection requirements not covered in the precaution statements above.

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

Sources of information and references

Safety Data Sheet ZYMO RESEARCH and ThermoFisher Scientific

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

SAF/MEME/2125-2127

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:

21 Nov 2024

Review comments