Loughborough University Centre for Biological Engineering



Safety Documentation

| Please select the forms you rec You can select more than one. | uire by selecting the check boxes | s below. | | | | |
|--|--|-----------------------------------|--|--|--|--|
| 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. | | | | | | |
| | ion at the end of the document set that | · | | | | |
| Staff may "self authorise", (as a sup | pervisor), but the forms must still be s | ubmitted 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 complete these fields | | | | |
|-----------------------------------|--|--|--|--|
| School or Service | Wolfson School of Mechanical, Electrical and Manufacturing Engineering | | | |
| Department | Centre for Biological Engineering | | | |
| Originator name | Sotiria Toumpaniari | | | |
| email address | s.toumpaniari@lboro.ac.uk | | | |
| Location | H34, CTMF | | | |
| Project / Activity / ⁻ | Task Mounting samples after histological staining | | | |
| Supervisor Name | Prof Sotiris Korossis | | | |

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Loughborough University Centre for Biological Engineering



COSHH Form

Reference SAF/294-296 Location H34, CTMF Originator Sotiria Toumpaniari Project / Activity / Task | Mounting samples after histological staining **CHEMICAL NAME** Hazard Rating m-xylene High **OVERALL** (>= 50 % - <= 100 %) **RISK:** Eyes Period of Exposure Amount The process is: **Physical State** CAS No. 108-38-3 Skin use (hrs) Potential used Inhaled Low Semi Closed Volatile Liquid 16 Low W.E.L. (Itel / stel) Ingested Hazard Statement and Description **Precaution Statement and Description** H226 Flammable liquid and vapour. P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. H332 Harmful if inhaled. P240 Ground/bond container and receiving equipment. H312 Harmful in contact with skin. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. H315 Causes skin irritation P403 + P233 Store in a well-ventilated place. Keep container tightly closed How will the precautions listed above be implemented? Wear PPE- nitrile gloves, lab coat and goggles. Treat it as cytotoxic and dispose in cytotoxic waste (yellow and purple). **Special Storage and Containment Measures Disposal Method** Keep container tightly closed in a dry and wellventilated place. Keep away from heat and sources of Hydrophobic organic solvent waste ignition. How will spillages be dealt with? Use spill kit. Cover drains. Collect, bind, and pump off spills. Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of **CHEMICAL NAME** Hazard Rating p-xylene High **OVERALL** |(>= 12.5 % - < 20 **%**) **RISK:** Eyes Period of Amount Exposure The process is: **Physical State** CAS No. 106-42-3 Skin use (hrs) Potential used Inhaled Low Semi Closed Volatile Liquid 16 0.2 ml Low W.E.L. (Itel / stel) Ingested Hazard Statement and Description **Precaution Statement and Description** H226 Flammable liquid and vapour. P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. H332 Harmful if inhaled. P240 Ground/bond container and receiving equipment. H312 Harmful in contact with skin. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. H315 Causes skin irritation. P403 + P233 Store in a well-ventilated place. Keep container tightly closed How will the precautions listed above be implemented? Wear PPE- nitrile gloves, lab coat and goggles. Treat it as cytotoxic and dispose in cytotoxic waste (yellow and purple).

COSHH Form (Continued)

| Special Storage and Containm | Special Storage and Containment Measures | | Disposal Method | | | |
|---|--|---|---------------------------------------|------------------|--------|--|
| Keep container tightly closed in a dry and well- ventilated place. Keep away from heat and sources of ignition. | | Hydrophobic organic solvent waste | | | x | |
| How will spillages be dealt wit | h? | | | | | |
| Cover drains. Collect, bind, and p | Cover drains. Collect, bind, and pump off spills. Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Cl | | | | | |
| CHEMICAL NAME | ^ | | Hazard Pating | X | K | |
| Toluene (>= 0.3 % - < 1 %) | (4) | | Rating | OVERALI RISK: | L | |
| CAS No. 108-88-3 | Amount Period of used use (hrs) | The process is: Physica | Potential | | \neg | |
| W.E.L. (Itel / stel) | 0.1 ml 16 | Semi Closed Volatile | Liquid Inhaled Low | Medium | 1 | |
| This chemical has a high health risk associated with it. | | | | | | |
| Hazard Statement and Description | | Precaution Statement and Description | | | + | |
| H225 Highly flammable liquid and vapour. | | P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. | | noking. | X | |
| H315 Causes skin irritation. | | P240 Ground/bond container and receiving equipment. | | | X | |
| H373 Causes damage to organs through prolonged or repeated expos | | P302 + P352 IF ON SKIN: Wash with plenty of soap and water. | | | x | |
| H361d Suspected of damaging the unborn child. | | P403 + P233 Store in a well-ventilated place. Keep container tightly closed | | osed | x | |
| H304 May be fatal if swallowed and enters airways. | | No Precaution statements applicable | | | x | |
| H336 May cause drowsiness or dizziness. | | No Precaution statements applicable | | | x | |
| Justify the use of this chemical: | | | | | | |
| How will the precautions listed | above be implemented? | | | | | |
| Wear PPE- nitrile gloves, lab coa | nt and goggles. Treat it as o | cytotoxic and dispose | e in cytotoxic waste (yellow and purp | ile). | | |
| Special Storage and Containment Measures | | Disposal Method | | | + | |
| Keep container tightly closed in a dry and well- ventilated place. Keep away from heat and sources of ignition. | | Hydrophobic organic solvent waste | | | X | |
| How will spillages be dealt with? | | | | | | |
| Cover drains. Collect, bind, and p | Cover drains. Collect, bind, and pump off spills. Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Cover drains. | | | | | |
| + Add another chemical | | | | | | |
| Statement of work (Process to b | e undertaken) | | | | _ | |
| Mounting needs to be used after histological staining to preserve the tissue and the staining. | | | Show Imag | | | |
| Personal protection requirement precaution statements above. | ts not covered in the | | | | _ | |
| Appropriate clothing (long trousers and skirts), closed shoes | | | | | | |
| Sources of information and references Reference to <u>existing approved</u> Risk Assessment | | | | | | |
| http://www.merckmillipore.com/GB/en/product/DPX-new,MDA_CHEM-100579?bd=1 | | | | | | |

COSHH Form (Continued)

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

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
- 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, Not Approved 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. Supervisors Signature Form Reference Numbers Method Statement COSHH Assessment Risk Assessment SAF/294-296 **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 **Next Review:** 4) At least annually from the date of approval **Review comments**

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