

Safety Documentation

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

🗸 Ris

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 <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 compl | ete these fields |
|----------------------|--|
| School or Service | Wolfson School of Mechanical, Electrical and Manufacturing Engineering |
| Department | Centre of Biological Engineering |
| Originator name | Kulvindar Sikand |
| email address | k.p.sikand@lboro.ac.uk |
| Location | Garendon Wing |
| Project / Activity / | Task Using sealant to fill gaps |
| Supervisor Name | Mark Taylor |

Garendon Wing



| Risk Assessı | ment |
|--------------|------|
|--------------|------|

Location

| Reference | SAF/MM6597 |
|-----------|------------|
| | |

Originator Kulvindar Sikand

Project / Activity / Task Using sealant to fill gaps

Is this process risk assessment for a : ✓ Laboratory / Workshop

○ General use

Category 1: Machinery & work equipment:

| Design and Construction | Mechanical hazards | Electrical hazards | Radiation hazards | + |
|---|---------------------|--------------------|-------------------|---|
| | Stabbing/Puncturing | | | x |
| Category 2: Workplace | | | | + |
| N/A | | | | x |
| Category 3: Hazardous and/or Harmful substances | | | | |
| Toxic substances | | | | |
| Category 4: Work activity | | | | |
| Use of hand tools | | | | |
| Working at height with step lac | lders. | | | x |
| Category 5: Work organisa | tion | | | + |
| N/A | | | | x |

| Explain the risks associated with these hazards | | | | | | |
|---|------------------|--------------------|------------|-----|--|--|
| People / Groups at risk Operator only | | | | x | | |
| Enter risk details here:- | Impact | Probability | Risk Sc | ore | | |
| Cuts from use of knife, possible stabbing | Slightly Harmful | Highly Unlikely | | | | |
| What are the control measures? | Lowers Impact | Lowers Probability | + | | | |
| Protective slash proof gloves should be used also slash proof sleeves if considered necessary. Person operating knife will be made aware to cut away from body. | Moderately | Slightly | x | | | |
| | Resid | ual Risk | | | | |
| | | L | ow | | | |
| People / Groups at risk Operator and people in proximity | | | | x | | |
| Enter risk details here:- | Impact | Probability | Risk Score | | | |
| Use of toxic substances | Slightly Harmful | Highly Unlikely | | | | |
| What are the control measures? | Lowers Impact | Lowers Probability | + | | | |

Process Risk Assessment Form (Continued)

| Ensure good ventilation should be kept to a mini | with area of use, exposure to toxic fumes mum. | Moderately | Slightly | x | |
|---|---|---------------|--------------------|-------|-----------|
| | | | | Resid | dual Risk |
| | | | | | Low |
| People / Groups at risk | Operator and people in proximity | | | | x |
| Enter risk details here:- | Probability | Risk S | core | | |
| Working at height with s | step ladders, potential fall. | Very Harmful | Unlikely | High | |
| What are the control measures | ? | Lowers Impact | Lowers Probability | + | |
| Not to overstretch, to ensure that there are 3 points of contact to help maintain balance. Work in an organized, methodical fashion. Persons carrying out this work must of carried out the working at heights course. | | Significantly | Significantly | x | |
| | | | | | dual Risk |
| | | | | | Low |
| + Add another Risk | | | | | |

Who may be at risk as a result of this activity?

| Personnel Group | Maximum (Task setup/ Re- configuration) | High (Performing the task) | Medium (Observing the task) | Low (Present, but not involved) | Lone Working (Out of hours) | No Exposure Permitted | Total |
|-----------------------------------|---|-------------------------------|--------------------------------|---------------------------------------|--------------------------------|--------------------------|-------|
| Academic Staff | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Technical Staff | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Research Staff (PDRA) | 0 | 0 | 0 | 5 | 0 | 0 | 5 |
| Research Students (PhD) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Students (Undergraduate / MSc) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Visitors | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Others - Over-type as needed | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 2 | 0 | 5 | 0 | 0 | 7 |

With these controls in place, the risk is:

The activity is LOW RISK $% \left({{\mathbf{R}}_{\mathbf{N}}} \right)$ - and is effectively controlled

Loughborough University Centre of Biological Engineering Safety Method Statement



| | | | Reference | SAF/MM6597 | | |
|---|--|-----------------------------|---------------|-----------------|---|--|
| Location | Garendon Wing | Originator Kulvindar Sikand | | | | |
| Project / Activity / Task | Using sealant to fill gaps | | | | | |
| What equipment wil | l be used in this activity? | | | | + | |
| Sealant gun | | | | | X | |
| Flexible tool for finishing | g off sealant. | | | | X | |
| Stanley knife | | | | | X | |
| Slash proof gloves | | | | | X | |
| Step ladders | | | | | X | |
| What training must b | be completed to do this activity? | | | | + | |
| No training required. | | | | | X | |
| What chemicals are b | peing used? (These must be included in the CC | SHH Form) | | | + | |
| 1961 Gap Filler & Sealan | t White | | | | X | |
| Spill and accident pr | ocedures. | | | | + | |
| Any spill of the sealant s purple cytotoxic bag. | hould be wiped up by using tissue/absorbant material a | nd this can be o | disposed of i | in a yellow and | x | |
| | | | | | | |

| Procedure in the event of an emergency. (How to leave the process in a safe condition in such an event) | + |
|---|---|
| In the event of an emergency cap off the sealant unless there is a fire when the sealant can be removed from the lab while exiting (still cap off). | x |
| | |

References.

searched for Stelmax 1961 sds, used sds on eurocell.co.uk. Also attached copy of sds for reference.

Detailed sequential description of the process

| Process step | Precautionary measures and comments | + |
|--|---|---|
| Cleaning out old sealant from between gaps using a Stanley knife. This may be require to be done at height on step ladders when working on the viewing panels to the labs. | Take care when using the stanley knife any slicing motions away from user. Ensure the operator is wearing slash proof gloves and sleeves is considered necessary. When using step ladders ensure the ladders are locked into position, don't overstretch and make sure that there are 3 points of contact to prevent losing balance. | x |
| Cleaning the surfaces with 70% IMS and then allow to evaporate and wipe dry and surplus IMS. | There is an existing COSHH for IMS. Wear gloves, safety glasses, lab coat. Work in a well ventilated area, spray into tissue and use this to wipe area with IMS. | x |
| Slice open the Stelmax cartridge using a stanley knife and load into sealant gun. | Take care when slicing the plastic cartridge. | x |

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Safety Method Statement (Continued)

| Process step | Precautionary measures and comments | + |
|--|---|---|
| Use sealant gun to apply bead of stelmax to the area required and use tool as required to get a smooth finish. | Wear gloves and safety glasses - work in well ventilated area. Ensure any surplus Stelmax as wiped up with tissue and disposed of in cytotoxic bags. Put up a sign so that users know sealant needs to harden. | x |



| COSHH Forr | n | | | Reference | SAF/MEME | 790 | | |
|--|-------------------------------------|--|--|--|---|---------------------------------|--------------------|----|
| Location | Garendo | n Wing | | Originator | Kulvindar Si | ikand | | |
| Project / Activity / Task | Using se | ealant to fill gaps | | | | | | |
| | | | | | | | | |
| CHEMICAL NAME | | | | \wedge | | Hazard Rating | | X |
| Stelmax 1961 Gap Fil sealant | ler and | | | \heartsuit | | High | OVERAI | LL |
| CAS No. | | Amount Period of used use (hrs) | The process is: Physic | cal State | ✓ Eyes✓ Skin | Exposure Potential | RISK: | _ |
| W.E.L. (Itel / stel) | | 300 g 2 | Open Volati | le Liquid | Inhaled | Medium | Low | |
| | | (| Consider a semi clos | ed system pro | ocess | E | | |
| Hazard Sta | atement a | nd Description | Pre | caution Statem | ent and Des | cription | | + |
| H225 Highly flammable liquid and vapour. | | | P201 Obtain special ins | P201 Obtain special instructions before use. | | | | |
| H319 Causes serious eye irritation. | | | P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. | | | | | x |
| H336 May cause drowsiness or dizziness. | | | P233 Keep container tightly closed. | | | | | x |
| EUH066 Repeated exposu | re may caus | e skin dryness or cracking | P261 Avoid breathing d | lust/fume/gas/mis | t/vapours/spray | ·. | | x |
| | | | P280 Wear protective g | loves/protective c | lothing/eye prot | tection/face pro | tection. | x |
| | | | P370 + P378 In case of f | ire: Use for exti | nction. | | | x |
| How will the precaut | ions liste | d above be implemented? | <u> </u> | | | | | |
| The sealant will be us be stored in the flam with tissue will be dis | ed in well nables ca posed of | ventilated areas and glove binet in gas pod 1. Any op as cytotoxic waste and sto | es, safety glasses and en cartridges will be red in the appropriat | l lab coat worn sealed properl e bags until di | . When not ir y. Any excess sposed of. | າ use the seal s sealant wip | lant will ed up | |
| Special Storage and | Containn | nent Measures | Disposal Method | | | | | + |
| The Stelmax will be stored in the flammables cabinet in gas pod 1. | | | Disposal via the cyt | otoxic chemic | al waste rout | e. | | x |
| How will spillages be dealt with? | | | Please note: any material used to | clean up a spill of hazard Click here to s | dous material must als ee spill procedures | o be disposed of as ha | zardous material. | |
| Absorbent cloth / tiss | ue then d | isposed of through the cy | totoxic waste route. | | | | | |
| | | + Ac | d another chemical | | | | | |
| | | | | | | | | _ |

Statement of work (Process to be undertaken)

Sealing of gaps in the CBE lab work surfaces along with sealing breakout panels.

Show image

Personal protection requirements not covered in the precaution statements above.

PPE is covered above, in addition when working in the lab will need to wear a lab coat.

Sources of information and references

sds for Stelmax found by searching for Stelmax 1961 sds - follow link to www.eurocell.co.uk

Reference to existing approved Risk Assessment

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

COSHH Form (Continued)

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.

<u>DSO</u>

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 SAF/MM6597 | Method Statement SAF/MM6597 | COSHH Assessment SAF/MEME790 | | |
| 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 the second 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:

16/10/2021

Review comments

Kulvindar Sikand