Loughborough University Centre for Biological engineering



Safety Documentation

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

Once you have made your selections, scroll down and complete the forms.

<u>Buttons</u>: [+] 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 for Biological engineering |
| Originator name | Kulvindar Sikand |
| email address | k.p.sikand@lboro.ac.uk |
| Location | H23, Garendon Wing, Holywell Park |
| Project / Activity / T | Task Use of Purite Select Analyst water purification system |
| Supervisor Name | Mark Taylor |

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Risk Assessment

| 112K Y33C33111 | ICIIL | | Reference SAF/MM6430 |
|---------------------------|--|------------|----------------------|
| Location | H23, Garendon Wing, Holywell Park | Originator | Kulvindar Sikand |
| Project / Activity / Task | Use of Purite Select Analyst water purification system | | |

| Category 1: Machinery & work equipment: | | | | |
|---|--------------------|--------------------------------|-------------------|---|
| Design and Construction | Mechanical hazards | Electrical hazards | Radiation hazards | + |
| N/A | N/A | Electrical test lables current | | X |
| Category 2: Workplace | | | | + |
| Restricted access | | | | X |
| Category 3: Hazardous and/or Harmful substances | | | | + |
| N/A | | | | X |
| Category 4: Work activity | | | | + |
| Awkward/Heavy lifting/Handling | | | | X |
| Category 5: Work organisation | | | | + |
| The is equipment used by lab users. | | | | X |

| Explain the risks asso | ciated with these hazards | | | | |
|-------------------------------|---|------------------|--------------------|--------|-----------|
| People / Groups at risk | Operator only | | | | X |
| Enter risk details here:- | | Impact | Probability | Risk S | core |
| Heavy water containers | moved (10L) - approximately 10kg | Slightly Harmful | Unlikely | | Low |
| What are the control measures | ? | Lowers Impact | Lowers Probability | + | |
| Users to be careful wher | n moving water container use handle. | Significantly | Significantly | x | |
| | | | | Resid | dual Risk |
| | | | | | Low |
| People / Groups at risk | Operator and people in proximity | | | | X |
| Enter risk details here:- | | Impact | Probability | Risk S | core |
| Trips and falls while mov | ving the container of water. | Harmful | Unlikely | М | edium |
| What are the control measures | ? | Lowers Impact | Lowers Probability | + | |
| handling procedure and | he operator to maintain good manual I to be aware of other users in the area. Good e floors are free of obstructions and dry. | Significantly | Significantly | x | |

Process Risk Assessment Form (Continued)

| | | | Resid | dual Risk |
|---|---------------|--------------------|--------|-----------|
| | | | | Low |
| People / Groups at risk Operator and people in proximity | | | | X |
| Enter risk details here:- | Impact | Probability | Risk S | core |
| Spillage of water when moving the container. Slightly Harmful Unlikely | | | | Low |
| What are the control measures? | Lowers Impact | Lowers Probability | + | |
| To ensure that the cap on top of the container is secure. | 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 | 4 | 0 | 0 | 0 | 0 | 4 |
| Research Staff (PDRA) | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| Research Students (PhD) | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| 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 | 12 | 0 | 0 | 0 | 0 | 12 |

With these controls in place, the risk is:

The activity is LOW RISK - and is effectively controlled

Loughborough University Centre for Biological engineering Safety Method Statement



| Salety Metri | od Statement | Referenc | se SAF/MM6430 | |
|--|---|-------------------------|----------------------|---|
| Location | H23, Garendon Wing, Holywell Park | Originator Kulvind | ar Sikand | |
| Project / Activity / Task | Use of Purite Select Analyst water purification system | | | |
| What equipment wil | I be used in this activity? | | + | F |
| Water purifier and water | r containers. | | Х | (|
| What training must I | be completed to do this activity? | | + | H |
| Basic manual handling a | and simple instructions on how to dispense water. | | X | (|
| What chemicals are | being used? (These must be included in the CC | SHH Form) | + | F |
| None. | | | х | (|
| Spill and accident pr | ocedures. | | + | F |
| mops and buckets are for electrical equipment on | e water. Proper signage will be put in placed to show the bund in the cleaning cupboard in the lab. Additional care the floor of H23 which can come into contact with any s ig filled in the sink so if it overflows it gets drained away. | should be taken to ensi | ure that there is no | < |
| Procedure in the eve | ent of an emergency. (How to leave the process in a | afe condition in such a | n event) | F |
| Turn tap off and leave. | | | Х | (|
| References. | | | + | F |
| Manual for Purite Select | Analyst. | | х | (|

Detailed sequential description of the process

| Process step | Precautionary measures and comments | + |
|---|---|---|
| Place empty container in sink and place flexible pipe from water purifier into container and switch on tap, also unclip in-line clip on hose. | Container placed in sink. | x |
| Once filled to required level switch off tap and engage clip on hose. | | x |
| Replace lid on container and remove carefully using handle from sink to floor. | Lift without twisting your back and maintain good posture, largest container filled is 10 L. (approximately 10Kg) | x |
| Relocate container to required location, common area is the autoclave room. | Lift using good manual handling technique. | x |

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:

| Enter the reference numbers as a Electronically sign this document Save it to a local drive (You will b eMail the signed document to the | e prompted to do this) | | |
|---|---|---------------|--------------|
| | ITHORISE THE FORMS, k the "Not Approved" check-box and return is expect them to do to put it right in the comi | | Not Approved |
| Supervisors Signature | | | |
| | Form Reference Number | 'S | |
| Risk Assessment SAF/MM6430 | Method Statement SAF/MM6430 | COSHH Assessm | ent |
| DSO Signature | | | |
| This document set must be revi 1) After the first occurrence of the activ 2) After any change to the procedure of | | wing times: | |
| 3) After any incident resulting from this4) At least annually from the date of approximation | activity | Next Review: | 30/04/2021 |
| Review comments | | | |
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