GENERAL LABORATORY RISK ASSESSMENT

# General information.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Department: |  | | Date: | Click or tap to enter a date. |
| Procedure: |  | | Revision Number: |  |
| Principal Investigator: |  | | PI Phone Number: |  |
| PI Signature:  \*By signing you are indicating that the tasks are planned for in such a way that the risk is tolerable. | |  | | |

# Identify if any of the following hazards or materials are present.

|  |  |  |  |
| --- | --- | --- | --- |
| Yes  No | [Nanomaterials](https://uwaterloo.ca/safety-office/laboratory-safety/nanomaterials) | Yes  No | Cannabis |
| Yes  No | [Biohazards](https://uwaterloo.ca/safety-office/laboratory-safety/biosafety) | Yes  No | Nonionizing Radiation |
| Yes  No | [Radioactive materials](https://uwaterloo.ca/safety-office/laboratory-safety/radiation) | Yes  No | [Designated Substances](https://uwaterloo.ca/safety-office/environmental-health/designated-substances) (acrylonitrile, benzene, silica, isocyanates, vinyl chloride, As, Pb, Hg, etc.) |
| Yes  No | [X-ray sources](https://uwaterloo.ca/safety-office/laboratory-safety/x-ray) |
| Yes  No | [Class](https://uwaterloo.ca/safety-office/laboratory-safety/x-ray) 3B or Class 4 Lasers |

If you checked “yes” for any of the items above, review the associated program to ensure you have managed those requirements prior to or in conjunction with completing this risk assessment.

# Describe the project steps in point form detail. Identify equipment and materials at relevant steps.

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# Identify the WHIMIS hazard classes, categories, and anticipated control measures used to reduce worker exposure. (Hover mouse here to learn how to add more rows)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Name of chemical | List all WHMIS physical and health hazard classes and categories  (drop-down list and free-form text) | Category / Type | | Using WHMIS precautionary statements as a guide, identify what control practices are required to minimize worker exposure for handling these chemicals – consider ventilation, PPE, containment, etc. |  |
|  | Choose an item. | Choose item. |  | |  |
| Choose an item. | Choose item. |  |
| Choose an item. | Choose item. |  |
| Choose an item. | Choose item. |  |
| Choose an item. | Choose item. |  |
|  | Choose an item. | Choose item. |  | |  |
| Choose an item. | Choose item. |  |
| Choose an item. | Choose item. |  |
| Choose an item. | Choose item. |  |
| Choose an item. | Choose item. |  |

# List equipment being used.

Equipment used consists of devices that impart energy or contain reactions – examples include rotovaps, ovens, pressure devices, material test stands etc. (Hover mouse here to learn how to add more rows)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Identify equipment (Click box to enter text) | Step # | List Potential Equipment Hazards | Identify anticipated controls to control the identified risks | |
|  |  | Choose an item or enter text. |  |  |
| Choose an item or enter text. |  |
| Choose an item or enter text. |  |
| Choose an item or enter text. |  |

# Hazardous conditions.

Please identify how experimental conditions (pressure, temperature, humidity, etc.) may alter the behaviour of chemicals being used. Remember to consider reactive intermediates as well.

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# Managing hazardous waste.

Please include waste disposal methods in your SOPs. Guidance can be found on the [Hazardous Waste website](https://uwaterloo.ca/safety-office/laboratory-safety/hazardous-waste-standard) or by emailing [esf@uwaterloo.ca](mailto:esf@uwaterloo.ca). (Hover mouse here to learn how to add more rows)

|  |  |  |  |
| --- | --- | --- | --- |
| Contents and Anticipated Class | | Waste Type | Anticipated Amount |
|  | | Solid  Radioactive  Biological  Liquid  Battery  Chemical |  |
|  | | Solid  Radioactive  Biological  Liquid  Battery  Chemical |  |
|  | | Solid  Radioactive  Biological  Liquid  Battery  Chemical |  |
|  | | Solid  Radioactive  Biological  Liquid  Battery  Chemical |  |
| Yes  No | All necessary labels, containers, transportation means are available to start the research process. | | |
| Yes  No | All waste generators have taken the online [Chemical Waste Segregation SO2070](https://uwaterloo.ca/safety-office/training/chemical-waste-segregation) | | |

# Standard operating procedures and emergency planning.

All medium to high-risk activities require an SOP. Work with toxic, pyrophoric, or water reactive materials require emergency planning SOPs. Identify what SOPs will be created for this project in the table below and where they are located. [SOP template is available from the Safety Office](https://uwaterloo.ca/safety-office/health-safety-management/risk-assessment-and-standard-operating-procedures).

|  |  |  |
| --- | --- | --- |
| SOP Name | Procedure available | Indicate how this SOP covers anticipated risks |
| **Overall Process** | Yes  No |  |
| **Spill, Exposure, or Emergency** | Yes  No |  |
|  | Yes  No |  |

# Personal protective equipment.

Note: Closed toed shoes and lab coat are mandatory for work with chemicals.

|  |  |  |
| --- | --- | --- |
| PPE Type | PPE Storage Location | When it is Worn |
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# Supervisor commentary.

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# Worker sign-off.

By signing the sheet below, you acknowledge that you have:

1. Understood the stipulations, hazardous, and control requirements outlined in this document.
2. You have completed practical training and had the opportunity to ask questions

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| --- | --- | --- |
| Name (Print) | Signature | Date |
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