# Safety Questionnaire 2025

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| Researcher: | Camden da Silva | | | | | | | | | Status: (BSc, MSc, PhD, external) | | | | | | | BSc | | | |
| McGill ID: | 261139553 | | | | | | | | | E-mail: | | | [camden.dasilva@mail.mcgill.ca](mailto:camden.dasilva@mail.mcgill.ca) | | | | | | | |
| Laboratory #: |  | |  | | | Office: | | | | 6250 | | |  | Tel. (Mobile): | | | | | 442 | |
| Research Director: | | Reghan Hill | | | | | | | |  | | |  | Tel. (Home): | | | | | (705) 351-3535 | |
| Title of Research Project: | | |  | | | | | | | | | | | | | | | | | |
| WHMIS Training: | | No: |  | Yes: | x | | | Date Completed: | | | | | 06/02/2025 | |  | | | | | |
| Gas Cylinder Training: | | No: |  | Yes: | x | | | Date Completed: | | | | | 23/01/2025 | |  | | | | | |
| Other training: | |  | | | | | | Date Completed: | | | | | dd/mm/yyyy | | (e.g., Waste disposal, BSC) | | | | | |
| Expected start and end dates for experiments: | | | | | | | | | 17/02/2025 | | | – | 25/04/2025 | |  | | | | | |
| How often have you done the experiment/procedure? | | | | | | | | | | | | |  | | Note: Minimum twice!! | | | | | |
| Has anyone in your research group used this procedure before? If so, please indicate who & when below: | | | | | | | | | | | | | | | | | | | | |
| Researcher | | | | | | | | | | | Approximate Date of Experiments | | | | | | | | | |
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| I certify that all the information in this safety questionnaire is true to the best of my knowledge. Another questionnaire will be submitted if there are significant changes to equipment or experimental procedures. | | | | | | | | | | | | | | | | | | | | |
| Researcher: | | Camden da Silva | | | | |  | | | | | | | | |  | | Date: | | 13/02/2025 |
| Research Director | |  | | | | |  | | | | | | | | |  | | Date | | dd/mm/yyyy |
| Lab Safety Officer: | | (Print Name) | | | | |  | | | | | | | | |  | | Date: | | dd/mm/yyyy |

# Approval Flow Sheet (ONLY for SAFETY COMMITTEE)

**Preliminary Stage**

We, the undersigned, have read the questionnaire and deem the procedure ready for the certification stage under the condition that any comments or recommendations will be considered by the above-named researcher.

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| Safety Committee Member |  |  | Date: |  |
| Safety Committee Member |  |  | Date: |  |
| Safety Committee Member |  |  | Date: |  |

**Certification Stage**

I, the undersigned, certify that a demonstration of the experimental procedure and equipment operation has been performed in my presence by the researcher and that both appear safe.

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| --- | --- | --- | --- | --- |
| Safety Committee Member |  |  | Date: |  |
| Research Director : |  |  | Date: |  |

# Experimental Procedure (max 2 pages, focus only on safety related aspects)

The procedure will consist of three main sources of potential safety concerns: mechanical safety, electrical safety, and chemical safety. Starting with mechanical safety, there are a few things to address. Firstly, there will be an optomechanical structure built. This will involve screwing metal components together and potentially drilling through components to fit them correctly. The safety concerns with this are the use of power-tools. To mitigate this risk, all major drilling through components will be done through a work order in the machine shop, the rest will be done in-lab, with proper care and PPE required (lab coat, glasses, …). Secondly for mechanical safety, there will be many moving components, including a DC motor, a linear actuator, and a syringe pump. Due to all these moving components, the structure must be built very sturdy. It will be required for all to keep a distance away from the structure when all components are in motion. Avoiding anyone touching the components will minimize pinching and cutting hands/fingers that would otherwise occur.

# Simplified P&ID

Mandatory for setups with gas cylinders, mass flow controllers, rotameters, valves, temperature controller, furnace, etc. Add equipment number see in example below (to be deleted)



# Hazards / Precautions

In the table below, check the appropriate box for each hazard class, to classify the severity of the hazard in your experimental procedure. If any box is checked other than **NONE**, list the hazard in the space below and on the other side of the page, if necessary, and describe how you propose to handle the hazard as well as the safety precautions you will take.

|  |  |  |  |
| --- | --- | --- | --- |
| **Hazard Class** | **Potential Hazard Rating** | | |
|  | **None** | **Moderate** | **Severe** |
| Flammable Gases, Liquids or Solids |  |  | Checkmark |
| Toxic and/or Corrosive Gases or Solids | Checkmark |  |  |
| Toxic and/or Corrosive Liquids | Checkmark |  |  |
| High or Low Temperatures |  |  | Checkmark |
| High Pressures or Reduced Pressures (Vacuum) |  |  | Checkmark |
| Electromagnetic Interference or High Energy Laser | Checkmark |  |  |
| Steam |  | Checkmark |  |
| Radioactive Substances | Checkmark |  |  |
| Voltages >115 V or Currents >15 amps | Checkmark |  |  |
| Pathogenic Organisms | Checkmark |  |  |
| High Speed Rotating Machinery | Checkmark |  |  |
| Dangerous Chemical Reactions |  | Checkmark |  |
| Other Hazards | Checkmark |  |  |

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| --- | --- | --- |
| **Chemical /Equipment** | **Potential Hazard Description** | **Hazard Handling and Safety Precautions** |
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