# Risk Assessment Form

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| Name of Research Staff doing assessment: | |
| Date: | |
| Project Name: | Partner Name: |

The risk assessment form was developed to support the Research staff responsible to perform a thorough safety evaluation of research projects, equipment operation, installation and commissioning to identify potential hazards, find mitigation measures, and strategize emergency plans. The risk assessment form must be completed for all projects and activities that present a hazard to staff, community and environment.

Form Procedure **-** The risk assessment form shall be completed according to the following stages below. Appendix A provides examples of hazards that may be identified. Appendix A is to support areas to review but specific hazards identified in form should contain significantly more detailed information. Supporting documents should be sent with Risk Assessment Form for review and may include SDS, SOPs, Operating Manuals and Inspection Checklists.

1. Evaluation:

**Research Projects -**  After project kickoff meeting, researchers shall conduct a thorough site-specific safety evaluation of the research project according to the questions enclosed in the risk assessment form. This evaluation shall be conducted before commencing the project.

**Equipment Operation, Installation and Commissioning -** Prior to operating, installing or commissioning a piece of equipment presenting a hazard researchers shall conduct a thorough site-specific safety evaluation of the activity according to the checklist questions enclosed in the risk assessment form. This evaluation shall be conducted before commencing work.

1. Risk assessment shall also be performed when the project or work changes to pose new risks and at any time the researcher feels the need to conduct when the project is ongoing.
2. The completed risk assessment form shall be dated, signed by assessor (research staff submitting), signed by supervising manager, and filed in researcher’s project folder.
3. A final copy of the completed risk assessment form shall be sent to the safety coordinator and supervising manager.

Activity/Procedure being assessed:

Does the activity involve the use of chemicals? If yes, is the chemical a designated substance, proprietary or a restricted chemical? (Describe chemicals, volumes, concentrations and state)

Known or expected hazards and risks associated with the activity:

What are the possible consequences? How likely are these consequences to occur? What is the possible severity of the harm?

Who is at risk?

Measure to be taken to eliminate the hazard or lower the level of risk?

Is there a risk of the control measures failing? What would the consequences be?

Training requirements:

Level of risk remaining:

Action to be taken in an emergency:

References, if any:

Signature of Research Staff submitting:

Signature of supervising Manager:

Contact:

Safety Coordinator: David Sowah-Kuma, Ph.D.

Contact Information: Email: [David.Sowah-Kuma@lambtoncollege.ca](mailto:David.Sowah-Kuma@lambtoncollege.ca)

Phone: 639-317-6840

Office: Research & Innovation, Room A1-207

**Appendix A: Example Hazard Checklist**

**1. Chemical Hazards**

* Exposure to toxic, flammable, or corrosive chemicals.
* Chemical spills and leaks.
* Inhalation of harmful vapors or dust.

**2. Biological Hazards**

* Exposure to infectious agents (bacteria, viruses, fungi).
* Handling of biological specimens (blood, tissues).
* Contamination and cross-contamination risks.

**3. Physical Hazards**

* Injuries from equipment or machinery (cuts, burns, crush injuries).
* Slips, trips, and falls.
* Manual handling injuries (lifting, carrying).

**4. Radiation Hazards**

* Exposure to ionizing radiation (X-rays, gamma rays).
* Exposure to non-ionizing radiation (UV light, lasers).
* Contamination from radioactive materials.

**5. Ergonomic Hazards**

* Repetitive strain injuries from prolonged computer use.
* Poor posture leading to musculoskeletal disorders.
* Strain from improper workstation setup.

**6. Electrical Hazards**

* Electric shock from faulty wiring or equipment.
* Fire hazards from overloaded circuits.
* Burns from electrical equipment.

**7. Fire and Explosion Hazards**

* Flammable materials and gases.
* Improper storage of combustible materials.
* Use of open flames or heat sources.

**8. Environmental Hazards**

* Improper disposal of hazardous waste.
* Pollution from chemical spills.
* Impact on local ecosystems from research activities.

**9. Mechanical Hazards**

* Moving parts of machinery causing injury.
* Equipment malfunction or failure.
* Use of tools and machinery without proper training.

**10. Noise Hazards**

* Exposure to high levels of noise from equipment.
* Hearing damage from prolonged exposure.
* Communication difficulties in noisy environments.

**11. Thermal Hazards**

* Burns from hot surfaces or substances.
* Frostbite or hypothermia from cold environments.
* Heat stress from working in high temperatures.

**12. Laser Hazards**

* Eye and skin injuries from laser exposure.
* Fire risk from high-powered lasers.
* Reflections and scattered laser beams.

**13. Compressed Gas Hazards**

* Explosion risk from gas cylinders.
* Asphyxiation from gas leaks.
* Handling and storage risks.

**14. Nanomaterial Hazards**

* Inhalation of nanoparticles.
* Environmental impact of nanomaterials

These hazards can vary depending on the nature of your research project. It’s important to conduct a thorough risk assessment and implement appropriate safety measures to mitigate these risks. If you need more specific information or guidance on any of these hazards please consult supervisor and Health and Safety Research Scientist.