



DREXEL UNIVERSITY'S INSTITUTIONAL BIOSAFETY COMMITTEE
BIOSAFETY PROTOCOL APPLICATION
Hazardous Substance Addendum (Form C)

Instructions

- Complete this form for all research activities involving toxins, chemical carcinogens, or cytotoxic drugs (collectively referred to hereafter as "hazardous substances") that may put research personnel at risk. This form must also be accompanied by the **General Biohazard Form (Form A)**.
- Fill out one form for each hazardous substance used in your research.
- Changes to an approved biosafety protocol must be made by filing a **Protocol Amendment Form (Form E)** for Institutional Biosafety Committee review.
- If you have questions about this form or the application process, please contact us by phone (215-762-7147) or e-mail (biosafety@drexel.edu).

1. PROJECT AND INVESTIGATOR INFORMATION

Project Title (Must exactly match the grant title if externally funded)

Principal Investigator's Name

2. HAZARDOUS SUBSTANCE TO BE USED

a. List the hazardous substance that will be used in your research and provide the indicated information. You must fill out one form for each hazardous substance.

<i>Name of hazardous substance</i>	<i>Synonyms for the hazardous substance</i>	<i>Chemical Abstract Number (see MSDS, label, or catalog entry)</i>	<i>Nature of the hazardous substance</i>
			Select one

If you selected **Other** in the fourth column, describe the nature of the substance.

b. Describe the major known effects on humans. Include both acute and chronic effects.

3. DETAILS ABOUT HAZARDOUS SUBSTANCE USE

a. Describe the experimental procedure that includes the hazardous substance.

b. Expected duration of the research project.

c. Maximum quantity (mg) to be purchased or stored. **Note:** Please consider the amounts that will likely remain at the conclusion of the experiment(s) and the costs of disposal.

d. Maximum amount expected to be used per experiment.	
e. Anticipated number of experiments per year.	
f. Indicate the physical form of the hazardous substance to be received (select one).	
<input type="checkbox"/> Solid, powder, or granules	<input type="checkbox"/> Paste or gel
<input type="checkbox"/> Liquid	<input type="checkbox"/> Gas
If the substance will be received in powder form, describe procedures to be used for preparing solutions, including preparation frequency and contamination control.	
g. Locations where the hazardous substance will be stored, prepared, and/or used.	
Room(s)	Stored <input type="checkbox"/> Prepared <input type="checkbox"/> Used <input type="checkbox"/>
Room(s)	Stored <input type="checkbox"/> Prepared <input type="checkbox"/> Used <input type="checkbox"/>
Room(s)	Stored <input type="checkbox"/> Prepared <input type="checkbox"/> Used <input type="checkbox"/>
h. Provide details about lab equipment or facilities that will be used to prepare and use the hazardous substances. Specify the use of an open benchtop, chemical fume hood, or biological safety cabinet (including class). For each location, describe the part of the procedure (e.g. solution preparation) or experiment (e.g. application to cultured cells) that will be performed.	
i. Describe the potential modes of exposure (e.g. inhalation, ingestion, skin contact, injection) for personnel working with the hazardous substance.	
j. Does the use of this hazardous substance involve the use of animals? If your answer is Yes , please complete and attach the Animal Use Addendum (Form D) .	
	<input type="checkbox"/> Yes <input type="checkbox"/> No

4. SAFETY PROCEDURES TO BE FOLLOWED	
a. Outline the procedures to be followed and the safety precautions to be used during the use of the hazardous substance. Include information on personal protective equipment, storage requirements, stock solution preparation, and handling.	
b. Will hazard signs need to be posted on laboratory doors? If your answer is Yes , indicate the locations (doors) where the signs will be posted. Note: If signage is necessary, it is the responsibility of the PI to arrange for standard hazard signs. Signs must indicate which hazard is present. Signs must be removed when the hazard is no longer present. Signage may also be required in the animal facility if the hazard is used in conjunction with experimental animals.	
	<input type="checkbox"/> Yes <input type="checkbox"/> No
c. Are additional engineering controls (e.g., glove box, filtration systems) required to handle the hazardous substance? If your answer is Yes , please list and describe (below) the required equipment.	
	<input type="checkbox"/> Yes <input type="checkbox"/> No
d. Will respiratory protection (e.g., masks, respirators) be required to handle the	
	<input type="checkbox"/> Yes <input type="checkbox"/> No

hazardous substance? If your answer is Yes , list and describe (below) the personal protective equipment to be used. Note: If respiratory protection will be required, you must contact the Department of Environmental Health and Safety (EHS) about specific equipment needs and training (including respirator fit testing).	
e. Will gloves be used to handle the hazardous substance? If your answer is Yes , specify the type of glove to be used. Note: Some laboratory personnel may be allergic to latex.	<input type="checkbox"/> Yes <input type="checkbox"/> No
f. How will individuals in the lab be kept informed of the use of the hazardous substance?	
g. Has training been provided to individuals expected to come in contact with the hazardous substance to be used?	<input type="checkbox"/> Yes <input type="checkbox"/> No
h. Has this training been documented to include dated signatures of all personnel?	<input type="checkbox"/> Yes <input type="checkbox"/> No

5. HAZARDOUS SUBSTANCE CLEAN-UP, DECONTAMINATION, AND DISPOSAL	
a. Describe procedures necessary for cleaning and decontaminating glassware used during the work. Include the frequency with which these procedures will need to be followed.	
b. Describe procedures necessary for cleaning and decontaminating laboratory benches, hoods, and other equipment used during the work. Include the frequency with which these procedures will need to be followed.	
c. Briefly describe the procedures necessary to dispose of used or unused quantities of the hazardous substance. Include the need for special containers or labels. Note: Investigators should strive to minimize, to the extent possible, the amount of waste generated as a result of the project. Please include your approach to minimizing the generation of hazardous waste during this project.	

6. EMERGENCY PROCEDURES
<p>In the event of a major spill within a University space, all laboratory, education, facilities, maintenance, outside contractors, administrative, and/or environmental services personnel will implement the following:</p> <ul style="list-style-type: none"> • Notify persons in the immediate area that a spill has occurred. • Avoid breathing vapors, mists or dusts. • Turn off all sources of ignition if possible. • If injured or contaminated with a hazardous substance, immediately implement personal decontamination procedures (e.g., eyewash, safety shower) prior to reporting the spill. • Evacuate the room and close the door – all labs are equipped with hazardous exhaust systems that are designed to help contain any release. • Contact the Drexel Emergency Call Center by dialing 215-895-2222 (depending on your location, you may need to dial “1” or “9” first). • In order to help responders assess the situation please be prepared to provide the following information – name and call back number, location of spill (campus, building, and room), type of

<p>material released or spilled, and quantity of material released or spilled.</p> <p>Remain on or near the phone until you have received instruction from the Emergency Call center or from the Department of Environmental Health and Safety (EHS).</p> <p>More details about the Drexel University Hazardous Material Emergency Spill Response Plan can be found by following the link to the Hazardous Material Emergency Response Plan on the EHS Laboratory Safety web page at http://www.drexel.edu/facilities/healthSafety/labSafety/.</p>	
<p>a. Describe the emergency procedures to be followed and specific actions to be taken in the event of an accidental spill or fire involving the hazardous substance or other materials that are part of this project. Emphasize procedures that deviate from routine practices and actions used in the laboratory. Note: Emergency Contact Information must be posted permanently at or near the laboratory entrance.</p>	
<p>b. How will decontamination of lab personnel be performed, if necessary?</p>	
<p>c. How will decontamination of the laboratory be accomplished, if necessary?</p>	
<p>d. Will respiratory protection (as described above) be required during these emergency procedures?</p>	<p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>

7. ADDITIONAL INFORMATION
<p>Use this text field to provide any additional information pertinent to your work and this biosafety protocol form.</p>
<p> </p>

ACKNOWLEDGEMENT OF RESPONSIBILITIES	
<p>The Principal Investigator must ensure that all persons participating in experiments that involve hazardous substances are made aware of the hazards associated with the substance and safety procedures that must be followed. This policy applies to laboratory personnel and, if applicable, animal facility staff members.</p>	
CERTIFICATION BY THE PRINCIPAL INVESTIGATOR	
<p>I affirm that, to the best of my knowledge, the information I have provided is complete and accurate. I understand my responsibilities as noted in this form. No changes will be made without prior approval of the Institutional Biosafety Committee.</p>	
<p>Signature of Principal Investigator</p>	<p>Date</p>
<p>Signature of Co-Principal Investigator (if applicable)</p>	<p>Date</p>
<p>Name of preparer (if prepared by someone other than the PI)</p>	<p>Position</p>

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Once you have completed, printed, and signed this form, scan it and create an Adobe PDF file. Alternatively, convert the completed form directly to an Adobe PDF file and electronically sign the form using the E-signature feature of Adobe Acrobat. Send the completed form by e-mail as an attachment to biosafety@drexel.edu.