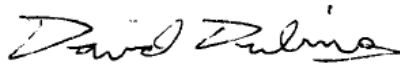


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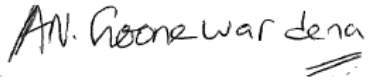
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08-May-24

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Date



07-May-24

Reviewed by:
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Date



22-May-2024

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22-May-2024

Authorized by:
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Professor and Dean

Date



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1. Scope

The scope of this SOP is to provide building-specific details regarding the safety issues concerning mercury spills in the Leslie L. Dan Faculty of Pharmacy building.

This SOP is not intended to replace, supersede, or contravene any of the policies or training outlined by the Office of Environmental Health and Safety (OEHS), available online via the following website:

<https://ehs.utoronto.ca/resources/>

The SOP is intended to clarify how site-specific aspects of OEHS policies are dealt with in order to ensure they are appropriately implemented. OEHS policies will not be re-iterated in this document, but rather the reader is referred to the link above, to the Policies and Procedures Listing Health and Safety Manual.

2. Objective

When mercury thermometers, mercury-containing UV lamps, lab equipment containing mercury switches, or other vessels containing mercury are broken, they pose specific hazards that need to be dealt with differently than regular spills. The objective of this SOP is to outline the appropriate policies, and the building-specific procedures pertaining to mercury spills in the Leslie Dan Faculty of Pharmacy.

3. Background

The Leslie Dan Faculty of Pharmacy is an organization committed to protecting and monitoring the health and safety of people in the building. The Joint Health and Safety Committee is the body responsible for overseeing this important task and reporting to the OEHS at the University of Toronto. SOPs are now required by the OEHS. This series of SOPs are compliant with this requirement.

4. Definitions and Abbreviations

Abbreviations used in this document are defined in this section:

SOP	Standard Operating Procedure
JHSC	Joint Health and Safety Committee of the Leslie Dan Faculty of Pharmacy, at the University of Toronto
OEHS	The Office of Environmental Health and Safety, University of Toronto
EPS	Environmental Protection Services (Hazardous Materials)
TBD	To be determined

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N/A	Not Applicable
Rev.	Revision

5. Policies

1. Emergency procedures for mercury spills pertaining to the laboratory are available through the OEHS website:
<https://ehs.utoronto.ca/report-an-incident/emergency-procedures/mercury-spill-procedures/>
2. Safety training for graduate students is a degree requirement, and occurs twice yearly in the Leslie Dan Faculty of Pharmacy. Mercury spill response is a component of the safety training course.
3. If there is a specific hazard of a mercury spill in a laboratory, the Principal Investigator should purchase a commercial mercury spill kit for the laboratory.

6. Procedures

6.1.1 Assessment of the Spill Magnitude

1. The first step in properly responding to a mercury spill is to qualitatively assess the magnitude of mercury accidentally released.
2. It is the responsibility of the Principal Investigator and members of the laboratory to identify and assess mercury spills in the laboratory, and respond immediately and appropriately to prevent contamination and limit exposure.
3. A regular mercury thermometer typically contains less than 5 mL of mercury metal. Mercury thermometers are typically out of circulation and have mostly been replaced with alcohol thermometers. However, a number of mercury thermometers nonetheless are still in the building. If a single mercury thermometer breaks releasing mercury metal, the spill is considered to be small.

6.1.2 Responding to Large Mercury Spills

1. If a large spill is identified during office hours (8:30am – 4:30pm weekdays), the Environmental Protection Services (EPS) division of the OEHS should be contacted directly, at 416-978-7000 (or 8-7000 from a University of Toronto telephone).
2. If a large spill is identified outside of office hours, the University of Toronto Campus Police should be contacted, at 416-978-2222.
3. The area containing the spill should be evacuated immediately, and sealed off until assistance arrives.
4. The spill should be reported to the Principal Investigator or supervisor of the laboratory, and to Environmental Health and Safety using the Accident/Incident/Occupational Disease Report form, available through the OEHS website:
<https://ehs.utoronto.ca/report-an-incident/>

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6.1.3 Responding to Small Mercury Spills

1. A small spill should be immediately cleaned up by the appropriate laboratory person who has been appropriately safety trained.
 - **ATTEMPT TO PREVENT THE SPREAD OF MERCURY OUTSIDE OF THE CONTAMINATED AREA.**
2. The mercury spill should be cleaned up immediately with an aspirator bulb, medicine dropper, or a mercury sponge.
3. The mercury should then be placed in a sealed container. The device used to collect the spilled mercury (along with any contaminated items, e.g. broken thermometer pieces, gloves, suction bulbs) should be placed in the sealed container.
4. A vacuum cleaner should not be used to clean the spill, regardless of the size of spill.
5. The sealed container should be affixed with a chemical waste label. The label should be accurately and completely filled out.
 - The sealed container should not misrepresent the waste; *i.e.* do not use a biowaste bag or pail, or anything with a Rad label.
6. Wash the surface with mercury neutralizing solution such as 20% sodium sulphide or sodium thiosulphate.
7. If mercury has broken up into smaller globules, sprinkle with sulphur powder or commercial product and leave for several hours before cleanup.
8. Transfer the sealed container to the Solvent and Chemical Waste Room in the penthouse of the Leslie L. Dan Faculty of Pharmacy building.
The spill should be reported to the Principal Investigator or supervisor of the laboratory, and to Environmental Health and Safety using the Accident/Incident/Occupational Disease Report form, available through the OEHS website: <https://ehs.utoronto.ca/report-an-incident/>
9. The OEHS can optionally be contacted to take measurements at the site of the spill, to ensure there is no remaining mercury contamination. The OEHS requires a few days' notice for this service.

7. Revision History

Revision #	Date	SOP Section(s)	Revision Description	Revised By
0	29-Jan-14		SOP PBSOP010 created.	David Dubins (author)
1	05-Dec-14	1, 5.1, 6.1.2.4, 8	Web links updated.	David Dubins (reviser)
2	08-May-24		Reviewed, and signatories updated.	David Dubins (reviser)