



Mercury Waste Disposal



It is the responsibility of **Principal Investigators (PI)** to ensure all lab personnel have been appropriately trained and follow the proper procedure.

Purpose

This procedure specifies the requirements for the safe disposal of elemental mercury waste through the UBC Environmental Services Facility (ESF) to ensure compliance with all current legislation.

Scope

Waste Application & Regulations

This procedure applies to the safe and proper disposal of **elemental mercury waste** generated from research facilities and laboratories at UBC Point Grey campus and off-campus research facilities.

The most common elemental (liquid) mercury containing laboratory devices are thermometers and manometers, which are disposed of via the Environmental Service Facility (ESF).

Waste (elemental) mercury or mercury contained in manufactured articles is regulated as class 8 (corrosive), as defined by the current Transportation of Dangerous Goods (TDG) Regulations.

Does Not Apply

This disposal procedure does NOT apply to the following wastes that ESF **does not** manage or handle, and/or are covered by different procedures:

- Inorganic or organic chemicals that include mercury – disposed as chemical waste via HWIS
- Fluorescent lamps, light bulbs, microscope lamps – recycled by Building Operations via Light Recycling BC
- Thermostats and electric switches – disposed by Building Operations

Background

The BC Hazardous Waste Regulation, 2009 and Metro Vancouver's Sewer Use Bylaw No. 299 prohibit the discharge of waste mercury into landfills and sewers.

The Canadian Environmental Protection Act Products Containing Mercury Regulations, 2014 prohibit the import and manufacture of products containing mercury or any of its compounds, with a few exemptions for essential products. This aims to reduce the risks to the environment and human health from mercury found in imported and manufactured products. The regulations also implement Canada's international obligations with respect to mercury-containing products under the Minamata Convention on Mercury.

Mercury waste includes equipment or devices such as: thermometers, barometers, manometers, blood pressure monitors (broken or unbroken), microscope lamps, fluorescent lamps/light bulbs, thermostats, electric switches, etc.

Fluorescent lamps/light bulbs contain very small amounts of mercury in vapour form, which can be released when the bulbs are broken. This is not considered hazardous waste.



Procedure



Contact our **ESF Technicians** for any questions related to elemental mercury waste disposal.



A. Mercury Thermometers or Manometers (Intact/Unbroken)

- ✓ Exercise caution when handling! These devices contain elemental (liquid) mercury.
- ✓ If thermometers are intact, pack safely into an appropriate secondary container (e.g. plastic box).
- ✓ Label the container “Mercury Thermometers for Disposal”.
- ✓ Safely remove elemental mercury from unbroken manometers or blood pressure monitors, as they contain a fairly high amount of mercury compared to thermometers
- ✓ Collect all elemental (liquid) mercury in appropriate containers.
 - Use empty, clean, leak-proof glass/plastic containers (vials or jars) with screw-top caps.
 - Do NOT dispose of liquid mercury waste in organic solvents jerry cans!
 - Note that ESF does not supply empty waste containers.
- ✓ Properly seal your waste containers to ensure no leaks
- ✓ Dispose as chemical waste via the online Hazardous Waste Inventory System (HWIS).
[Refer to the chemical waste procedure for details]
 - List as “Mercury” under the chemical name when entering the information in the HWIS

B. Broken Mercury Thermometers or Manometers & Other Elemental Mercury Waste

- ✓ Report the elemental (liquid) mercury spill to a supervisor, then to SRS via the UBC Centralized Accident Incident Reporting System (CAIRS). If necessary, contact HAZMAT (911) for immediate assistance.
- ✓ Review your local spill clean-up procedures, the SRS Spill Response guidelines, or the SRS Mercury Spill Clean-up Procedure for details on how to clean up a mercury spill.
- ✓ Ensure liquid mercury does not enter any drains.
- ✓ Collect all elemental (liquid) mercury and clean-up materials in appropriate containers.
 - Segregate clean-up materials (wipes/gloves) in a separate container
 - Use empty, clean, leak-proof glass/plastic containers (vials or jars) with screw-top caps.
 - **Do NOT dispose of liquid mercury waste in organic solvents jerry cans!**
 - Note that ESF does not supply empty waste containers.
- ✓ Properly seal your waste containers to ensure no leaks
- ✓ Label the containers as “Mercury Waste” or “Mercury Debris”
- ✓ Dispose as chemical waste via the online Hazardous Waste Inventory System (HWIS)
 - List as “Mercury” under the chemical name when entering the information in the HWIS