

Title:	<b>Chemical Waste Disposal Guidelines-Research</b>		
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## 1.0 PURPOSE

Researchers should be aware of the types of chemical waste generated and follow proper disposal guidelines to protect staff and the environment. The disposal of any toxic or hazardous material must be done in accordance with federal, provincial, and municipal regulations. Ontario has a comprehensive legislative and regulatory framework to ensure that hazardous wastes are managed in an environmentally safe manner. Through the Environmental Protection Act and accompanying regulations, the Ministry of the Environment has established a system that controls the collection, storage, transportation, treatment, recovery, and disposal of hazardous waste.

## 2.0 PROCEDURE

### ***Chemical Waste Disposal Guidelines:***

1. Sink disposal, followed by copious amount of water, is limited to:
  - Buffer solution
  - Detergents
  - Mild acids/bases
  - >20% v/v methanol or ethanol solutions
  - Bleach containing solutions (usually 1:10 dilution of stock)
  - Any non-hazardous compounds

### ***Chemical waste pick-up:***

Chemicals that cannot be disposed through sink disposal or are regulated under the Environmental Protection Act O Reg. 347- Schedules 1 and 2 should be deposited in the Biohazard Work room #545 for pick-up.

#### 1. Discarding old chemicals-

- Leave the original labels on the chemicals being disposed.
- If the original chemical bottles are broken or leaking, transfer the chemical to an intact container and label the container using a hazardous label sticker.
- List the name of the PI/Lab on the container.
- Place the chemicals in provided secondary containers (trays) for storage.

#### 2. Discarding hazardous waste generated in the Lab-

- Use containers compatible with the waste chemicals: use glass containers for solvent /corrosive wastes to ensure the waste contents will not melt or dissolve the container.
- Close the lids of the waste container securely (screw type lid)- Stoppered bottles or the use of paraffin wax to seal containers is not acceptable. For Piranha acid waste, use bottles with vented caps.
- Use separate containers to collect unique or incompatible waste types.
- Before starting the chemical waste collection, label the waste container- use the hazardous waste sticker provided in the biohazard room
- Write the Full Chemical Name for each specific chemical component. – “Running buffer,” “Solution B,” and “organic solvent” is not proper labeling- Check the appropriate Globally Harmonized System of Classification and check the SDS sheet. Disposing of unlabeled waste is expensive E.g., tubes with an unidentified liquid in a bag or gloves and lab bench guards in a plastic bag are not acceptable.
- Designate a Chemical waste collection area in the lab- this area can be a small section of a chemical hood, bench top, cabinet, or any combination, depending on storage requirements.
- Dispose the waste container within 90 days or when 75% full, whichever is first.

#### 3. Discarding cytotoxic waste generated in the Lab-

- Any cytotoxic waste should be put in a ‘Red Bag’ and deposited into the cytotoxic bin (Red bin). Once the container is full, check with Vivarium staff to request pickup/disposal.

For any further questions on proper chemical disposal check SDS or reach out to:

- Research Biosafety Officer at 647-330-2383
- Occupational Hygienist- Corporate Health and Safety Services at Ext. 5227.

***Accidents or spills:***

- Report the incident to your supervisor and fill out the online incident report (Event tracker on the Intranet- Safety First).

Version	Approval/Sub-approval body	Approval date
01	Research Biosafety Committee	January 1, 2015
02	Research Biosafety Committee	January 1, 2019
03	Director Research Facilities	September 30, 2022

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