
CHEMICAL WASTE DISPOSAL GUIDELINES

Environmental Health and Safety (EHS) provides hazardous chemical waste disposal services to Concordia's internal departments. Disposal of chemical waste is free of charge provided the waste is presented properly. Due to the nature of this material, all disposal procedures outlined in this document are mandatory and must be respected in order to ensure safe and efficient collection and disposal of chemical waste.

1. CONTAINERS

1.1 New Containers

Chemical waste containers must be selected based on the type and volume of waste they will be used to dispose of. The following containers are available:

For **LIQUID** chemical waste
e.g. used solvents, acids, aqueous solutions

- 4L bottle
- 10L jerrican
- 20L jerrican

Always allow at least **10% free space** for solvent expansion

NOTE: certain **highly reactive or corrosive chemicals** (e.g. piranha solutions, aqua regia) are not compatible with this type of container. Contact ehs@concordia.ca for information on appropriate vented containers.



For **SOLID** chemical waste
*e.g. chemical powders, contaminated gloves or paper towels, chemical-contaminated sharps**

- 4L plastic container
- 20L plastic pail



* Certain locations at the Loyola campus are required to dispose of **chemical-contaminated sharps** in dedicated waste containers.

This includes:

- SP building: Teaching and research laboratories in Chemistry & Biochemistry
- HU building: Research labs belonging to District 3, Chemistry & Biochemistry, or Chemicals and Materials Engineering



For **BULK** chemical waste, 205L (55 gallons) drums (HDPE or metal) are available by special request. Contact hazardouswaste@concordia.ca for more information.

Note: Chemical waste containers must *NEVER* be used for disposal of radioactive materials. Consult Section 17 of the [Radiation Safety Manual](#) for radioactive waste disposal procedures, or contact the Radiation Safety Officer for assistance.

Chemical waste containers are provided free of charge to Concordia labs, studios, and workshops. To obtain new waste containers:

- **Loyola Campus:** Request containers from the FAS Central Stores in SP 132.02.
- **SGW Campus:** Contact EHS by email (hazardouswaste@concordia.ca) to request containers.

1.2 Other Containers

Empty chemical bottles and expired chemicals in their original containers are also accepted for disposal provided they are sealed, in good condition, and properly identified. Do not combine chemical bottles with other waste into a chemical waste container.

1.3 Re-used Containers

Empty, clean containers can sometimes be re-used as chemical waste containers. For example, old solvent bottles can often be used for waste solvent. There are a few criteria that must be if considered if a container is to be re-used for waste:

- **Compatibility:** Ensure that the material of the container is compatible with the waste that will be added. Glass bottles, for example, must *NEVER* be used for waste hydrofluoric acid. Also consider the compatibility of the container's previous contents with the waste that will be generated: it would not be advisable to use an empty bottle of sodium hydroxide powder to store acid waste, as some powder residue could remain inside and lead to an unintended reaction.
- **Seal:** Do not use a bottle or other vessel as a waste container if a well-fitting cap or lid is not available. Waste containers must be kept closed at all times.
- **Condition:** Waste containers must be sturdy and leak-proof. Avoid using cracked bottles, rusted cans, or any other container that appears fragile, worn, or shows other signs of damage.

2. HANDLING & STORAGE

2.1 General Handling

The addition of chemical waste to a container must always be carried out in a safe manner:

- Wear appropriate Personal Protective Equipment (PPE) including gloves, safety glasses, and a lab coat.
- Perform the waste transfer under local exhaust ventilation, such as inside a fume hood.
- Use a funnel to facilitate any liquid transfers.

2.2 Mixing Chemical Waste

Always respect the compatibility of chemicals if they are to be mixed into one waste container (ex. never mix oxidizer with flammable products). Consult the product's (M)SDS (Section 10, entitled "STABILITY AND REACTIVITY") for information on chemical compatibility. If you're not sure, email hazardouswaste@concordia.ca

2.3 Chemical Waste Storage Areas

Chemical waste containers should be stored at a designated waste station, away from laboratory or workshop stock. For ease of pickup, it is preferable to locate the waste station in an accessible location not too far from the exit door. All waste containers must be properly closed when not in use.

Secondary containment in the form of a spill tray or other container must be provided for all waste containers in order to control any spills or leaks resulting from waste transfer. For liquid waste, the secondary containment must be large enough to hold the total volume of the waste container. For example: a 20L waste container requires 20L of secondary containment.

3. IDENTIFICATION & LABELING

3.1 Chemical Waste Labels

All chemical waste containers must be fully identified at all times, including when they are only partially filled. Mandatory information is as follows:

- **Chemical names:** All chemicals added to the container must be listed on the label, including those considered non-hazardous (e.g. water). Use specific chemical names rather than general terms (e.g. use "acetone" rather than "solvent"). Use full chemical names, without abbreviations (e.g. use "graphene oxide" rather than "GO").
- **Percentages:** For mixed waste, the amount of each chemical added to the container should be tracked so that final percentages can be provided. This includes percentages of non-hazardous components such as water.
- **Laboratory information:** Fill out the lab number, contact phone number, and the date the container was filled and sealed.
- **Hazards:** Check off all hazard boxes which apply to the contents of the waste container.

EHS provides a [Quick Reference Guide](#) to Hazardous Waste Labels that can be consulted online or posted near waste stations as a reminder.

To obtain chemical waste labels:

- **Loyola Campus:** Request labels from the FAS Central Stores in SP 132.02
- **SGW Campus:** Contact EHS at hazardouswaste@concordia.ca

4. DISPOSAL

Full chemical waste containers are collected by EHS upon request. In order to request a waste pickup:

1. Ensure that the waste containers are properly closed and sealed.
2. Make sure that the waste is identified. If using a waste label, check that the information is legible and includes all chemical names, hazards, lab information, and percentages (for mixtures). See section 3.1 of this document for details of how to complete the waste labels. **Unidentified or unknown chemical waste cannot be accepted for disposal. If you are unable to identify your waste, an analysis will be performed at the PI's or Department's expense.**
3. Place the waste container in the laboratory's designated waste storage area. The waste label should face outwards and be clearly visible.
4. Complete the [Hazardous Waste Disposal Request Form](#), including full chemical and user information.
5. Email the completed form to hazardouswaste@concordia.ca.

Hazardous chemical waste pickups occur on a scheduled, weekly basis on both the Loyola and SGW campuses. Collection schedules for bulk waste and heavy waste may vary, as they require specialized pickup procedures and equipment.

For questions or inquiries regarding hazardous chemical waste disposal, contact:

Environmental Health and Safety (EHS)
514-848-2424 ext. 4877
hazardouswaste@concordia.ca