

The Waste-Paper

“Waste is a terrible thing to mind”

Volume 18 Issue 10

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Mercury Waste Drop-off

Cleaning Chemical Spills

Like death and taxes, chemical spills are practically inevitable. Spill cleanup might appear to be a daunting task, but is actually rather simple. Be proactive and take steps to ensure you have the knowledge and proper materials to deal with a spill *before* it happens.

Carefully consider the following:

1. Does your area have a fully stocked spill kit and where is it?
2. If not, where is the nearest EHS spill kit?
3. What types of chemicals are in your area?
4. Do any chemicals require special spill control materials or processes, like mercury or hydrofluoric acid? If so, do you have access to these spill control materials?

Once a spill occurs, assess the situation. If the spill is greater than 1-gallon, is an unknown material, went down the drain, is on fire, is reacting violently, is creating overwhelming and/or harmful vapors, or is otherwise too hazardous for you to manage, contact Public Safety at 911 from any campus phone or (609) 258-3333 from a non-campus/cell phone. Public Safety will contact EHS to provide assistance and advice.

Notify everyone in the adjacent area, evacuate the area and close the doors.



If the spill is manageable, two people from the lab should clean it up. **Never ask a janitor or special facilities worker to clean up any spill other than water.** One person should be responsible for cleaning the spill; the other will assist with supplies.



Consider what you will need to do to protect yourself from overexposure to the chemical and to handle the material safely. If you are unsure or do not have what you need, contact EHS for advice (via Public Safety after hours). Consult the material safety data sheet (MSDS) or other sources of information, as needed.

Put on appropriate protective equipment. Tyvek booties help prevent spread of contamination. Gloves, chemical splash goggles and vinyl aprons prevent

bodily exposures. This personal protective equipment is available in the EHS spill kit.

The assisting worker should hand materials as needed to the person cleaning up the spill, from a clean area, to avoid spreading contamination. Contain the spill by surrounding it with loose absorbent or spill pads. Start from the outside and work your way towards the center. Once it is covered and absorbed, sweep the material into the collection bag and label it as hazardous waste, if applicable.

Special Materials

Hydrofluoric acid is incompatible with many spill control materials. Keep a supply of 3M Powersorb or similar HF-compatible materials on hand. Do not collect and store in glass.

Mercury spills also require special handling and materials.

This Month's Waste Disposal Drop Off:

Wednesday, September 23, 2015

Lewis Thomas loading dock

- Collection room open from 2:45 - 4:00 PM
- Coordinators: [Michael Fredericks](#) (8-1351) for Molecular Biology and [Bob Koenigsmark](#) (8-4123) for Geosciences

Jadwin Loading Dock Building

- Coordinators: [Philip Fairall](#) (8-3913) for Chemistry and [Jim Kukon](#) (8-4364) for Physics

E-Quad Room 7 (E-Quad and Bowen)

- Collection room open from 2:00 - 3:00 PM
- Coordinators: [Joe Laskow](#) (8-4739), [Phil Curry](#) (8-4563) or [Anthony Schulz](#) (8-4563)

Hoyt Laboratory, 185 Nassau

- Waste collection conducted as-needed. Please coordinate with [Kyle Angjelo](#) (8-2711)

Alternative Waste Disposal

The University has a very extensive hazardous waste program. But did you know there are many kinds of waste that can safely be recycled or disposed via trash or the sanitary sewer? The following are some items that do not need to be handled as hazardous wastes.

Non-Hazardous Chemicals

Several laboratory chemicals are considered non-hazardous and may be disposed via sanitary sewer (liquids) or laboratory trash. Lists of liquid and solid Non-Hazardous Chemical Wastes may be found on the EHS web page: <https://ehs.princeton.edu/laboratory-research/sanitary-sewer-drain-disposal-list> and <https://ehs.princeton.edu/laboratory-research/chemical-safety/chemical-waste/trash-disposal>. Please do not dispose of liquids or malodorous chemicals in the trash.

Battery Recycling

Building Services administers a program for recycling rechargeable batteries (e.g., NiCd). You may have noticed their receptacles at various collection locations on campus. More information is available on the EHS web page at <https://ehs.princeton.edu/environmental-programs/waste-management/batteriesbattery-pack-management> or contact Building Services for more information. *Please note:* All rechargeable batteries must be recycled or disposed of as hazardous waste. Alkaline batteries (standard non-rechargeable) are not recycled and should be placed in refuse/trash receptacles.

Used Oil

Used oil is a recyclable waste. Label spent oil "Used Oil," not "waste oil" or "hazardous waste". The exceptions are generally lubricating oils are not contaminated with other hazardous constituents (e.g., solvent, heavy metals, etc.). Some exceptions to that assumption are certain vacuum pump oils and cutting oils, and PCB contaminated dielectric oil. All of the aforementioned exceptions are regulated hazardous wastes and must be labeled and disposed as hazardous waste through the university's chemical waste program (<https://ehs.princeton.edu/laboratory-research/>

[chemical-safety/chemical-waste/chemical-waste-liquids](https://ehs.princeton.edu/chemical-safety/chemical-waste/chemical-waste-liquids)).

Chemical/Solvent Containers (empty)

Empty chemical containers should not be disposed of as hazardous waste. The containers must be triple rinsed with water or other suitable solvent and air-dried before recycling. If the container once contained a material listed on the EPA List of Acutely Hazardous Waste (<http://www.gpo.gov/fdsys/pkg/CFR-2012-title40-vol27/xml/CFR-2012-title40-vol27-sec261-33.xml>), any residue must be collected and disposed as hazardous waste. Volatile organic solvents (e.g. acetone, ethanol, ethyl acetate, ethyl ether, hexane, methanol, methylene chloride, petroleum ether, toluene, xylene, etc.) not on the list of acutely hazardous wastes, may be air-dried in a well ventilated area (e.g. chemical fume hood) without triple rinsing. Glass containers with no visible residue may be placed in University recycling receptacles, with the exception of acid bottles. If the glass container has visible residue and this residue is hazardous, the container should be disposed as medical waste. Any broken glass containers that are free of chemical residue should be placed in broken glass receptacles. Broken laboratory glassware is not recyclable. More information can be found at the EHS web page at <https://ehs.princeton.edu/laboratory-research/laboratory-safety/research-waste-management/laboratory-waste>

Compressed Gas Cylinders

If you have unneeded lecture bottles, first call the manufacturer or distributor and ask that they pick up the cylinder for return. If they will not take the cylinder back, please call EHS at 258-5294 for assistance. Should EHS need to dispose of the cylinder via hazardous waste contractors, there may be a modest charge to your department. Please use returnable or refillable cylinders as available. Please contact EHS for a list of vendors.