
The Waste-Paper

“Waste is a terrible thing to mind”

Volume 19 Issue 1

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Mercury Waste Drop-off – January 27th

Just Arriving?

Welcome to Princeton! If you are here for extended research or are just staying for a short-term collaboration, here are a few chemical waste management items we hope will be helpful to you. Environmental Health & Safety (EHS) coordinates the hazardous waste program on campus. Chemical wastes are collected from Frick, E-Quad and Lewis Thomas Labs on the last Thursday of each month by a contractor. However, the lab researchers must bring waste down to the designated collection point the day before according to your department schedule which can be found on the EHS website: ehs.princeton.edu

Until that time, waste is managed in the lab or work area. Here's a summary of the requirements:

- Waste containers must be labeled as soon as waste collection begins. EHS provides labels, which you should complete and affix to the container right away, or else you must write the words *Hazardous Waste* and the full chemical name of the contents on the container. White/clear carboys recommended for solvents. Use blue carboys for compatible corrosive wastes.
- Waste containers must always be kept closed except during filling. Do not leave funnels in waste containers in anticipation of future fillings.
- Store away from floor drains and sinks. If you must store near drains, use secondary containment to contain any spillage.
- Disposal of any hazardous chemical waste down the sink is prohibited. Evaporation of solvents is also a prohibited means of disposal.

If you would like more information about waste disposal, please visit the Chemical Waste Disposal section of the EHS web site. EHS works closely with researchers and other waste generators to ensure compliance with state and federal hazardous waste regulations. Please help us to continue our strong record of compliance and environmental stewardship.

An Ounce of Prevention

Laboratory equipment, such as refrigerators and freezers, store and preserve critical research materials. Whether temperature-sensitive reagents or the product of many hours of research, the security of your hard work could depend on whether or not you maintain laboratory equipment properly.

In addition to potential loss of valuable materials, failure of a refrigerator or freezer used for storage of chemically unstable, temperature-sensitive materials could result in over pressurization of containers or other hazardous conditions. To effectively protect your research and the health and safety of everyone in the lab, please consider a few words on preventative maintenance, replacement schedules, and an EHS endorsed monitoring system.



Refrigerators, freezers and other laboratory equipment require periodic evaluation with regard to age, temperature stability and obvious signs of wear (e.g., torn or missing seals, loud compressor cycles, etc.). Remember, the costs associated with cleaning and disposing of a failed refrigerator full of chemicals is the financial responsibility of your lab!

Periodically check lines from water-cooled equipment to prevent flooding due to hose/tubing failure; inspect cords from electrical equipment to identify fraying or other damage; and inspect heating devices to prevent the possibility of sparks that could ignite flammable materials.

Equipment malfunctions should be reported promptly to a senior lab member. Do not continue to use damaged equipment.

Be sure to check the manufacturer's literature for recommended inspection and preventive maintenance schedules.

HAZARDOUS WASTE
Federal & New Jersey Laws Prohibit Improper Disposal

Department _____ Phone _____
Lab Group _____
Responsible Individual _____
Date Placed in 90 Day Storage _____

Contents	Approximate %
_____	_____
_____	_____
_____	_____

Use IUPAC
Nomenclature _____

Hazard Class (if known)

1. Poison	4. Oxidizer	7. Reactive to Stock
2. Flammable-Liquid	5. Corrosive	8. Toxic, Air or
3. Flammable Solid	6. Detonable Former	Water

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To add another layer of protection to the storage of your priceless samples, expensive reagents, or potentially hazardous reagents, consider purchasing individual monitoring for each of your storage units. Minus80 Monitoring is a system utilized by many of Princeton University's research labs to monitor temperature sensitive materials.

Minus80 monitoring provides real-time monitoring and reports, including internal temperature, ambient room temperature and humidity, door open/close status, as well as capability for movement/tilt status. Alarm set points and notifications are completely customizable with an online portal. Notifications can be received via telephone, text message, and email. Individual equipment status can be easily viewed in the portal or on your smart-device.

Data collection and other system infrastructure costs have been absorbed by EHS and the Office of the Provost. The only cost to labs is a small subscription fee usually less than \$6/month. If you are interested in this program, please contact Kyle Angjelo at kangjelo@princeton.edu or 609-258-2711

<i>EHS HAZARDOUS WASTE CONTACTS</i>	
Main Office	8-5294
Kyle Angjelo (Chemical Waste)	8-2711
Sue Dupre (Radioactive Waste)	8-6252
Jacqueline Wagner (Biohazardous Waste)	8-1427
Tom Drexel (Waste Paper)	8-6255
EHS Web Page http://ehs.princeton.edu	

Training Requirements

Just a reminder to those new to the University, or those who may be veterans but have never received required safety trainings:

Laboratory Safety Training

All faculty, staff, students, and visiting researchers working in laboratories are required by University Policy to attend Laboratory Safety Training. All laboratory workers must attend this session given by EHS and receive additional training specific to their laboratory from their department and/or principal investigator to comply with regulatory requirements.

Laboratory Safety Training and all other safety training sessions may be accessed by visiting the Employee Learning Center website, www.princeton.edu/training. Click on "Training by Department," then click on "Environmental Health & Safety."

Radiation Safety Training

Regardless of previous training and experience, anyone planning to use radioactive materials, must complete initial radiation safety training before using radioactive materials. Initial radiation safety training is divided into two segments: A set of web-based Radiation Basics modules with an accompanying test on the Employee Learning Center website and Radioactive Materials classroom training. Participants must successfully pass the Radiation Basics Test before attending the Radioactive Materials Safety Class.

Biological Safety Training

Faculty, staff, students and visitors who conduct research with Biosafety Level 2 materials and/or recombinant or synthetic nucleic acid molecules not exempted from the [NIH Guidelines](#) must attend Intro to Biosafety training. Bloodborne Pathogens training is required annually for all faculty, staff and students who conduct research with human-source material, HIV, or Hepatitis B virus in a laboratory setting. Human-source material includes primary cells, blood, serum, tissues, feces, and body fluids (sputum, urine, saliva, etc.), and [certain cell lines](#).

Laser Safety Training

Laser safety training is required for individuals who operate or work in proximity to Class 2, Class 3 or Class 4 laser equipment associated with research applications.

Check your Status

Personal training records are available by logging into the University's learning management site (LMS) at www.princeton.edu/training and selecting the 'Learning History' link found under the ***My Training*** section of the left-hand tool bar. Call EHS at 8-5294 if you have any questions.

Drop Off: Wednesday, January 27, 2016

Lewis Thomas loading dock

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

Jadwin Loading Dock Receiving Building

- Coordinators: [Phillip 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) or [Phil Curry](#) or [Anthony Schulz](#) (8-4563)

Hoyt, 185 Nassau

- Waste is collected upon request