

# The Waste-Paper

The Hazardous Waste Disposal Monthly Update

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## Are You New Here?

If Eating Clubs and black squirrels have you scratching your head, chances are you're new to the Princeton Community. If so, there are a few things you should know about the hazardous waste program here at Princeton.

EHS coordinates and pays for proper disposal of hazardous chemical waste. Consult the [EHS web page](#) for additional information.

### What is Hazardous Waste

Unwanted chemicals are considered hazardous waste if they are:

- Ignitable (flammable, oxidizer, etc.)
- Reactive
- pH < 2 or > 12.5
- Contains certain metals or organics (see web page for more information and chemical lists)

### Packaging Chemical Wastes

Place chemical waste in sealed containers that are compatible with the chemical being stored (e.g. no hydrofluoric acid in glass). Fill containers completely, leaving headspace for expansion.

Keep containers closed except during actual transfers. Do not leave open funnels in hazardous waste accumulation containers.

Similar wastes may be mixed if they are compatible (e.g. many flammable liquids).

If you routinely generate significant quantities of compatible chemicals, bulking of waste in five-gallon carboys (**white** carboys for flammable solvent, **blue** carboys for non-solvent) is encouraged. Carboys are available at no cost at the E-Quad, Frick and LTL stockrooms and through EHS.

### Labeling of Chemical Waste Containers

Waste containers must be labeled with the words HAZARDOUS WASTE along with the names and approximate percentages of the principal chemical constituents, preferably using the hazardous waste labels (see graphic above) available through EHS (8-5294).

Use common chemical names, not symbols, structural diagrams or product trade names.

Labeling should be accurate and legible and must include the name of the responsible person or lab and an extension where someone who is knowledgeable about that specific waste can be reached on the day of the pickup.

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. Sensitive to Shock, Friction, Air or Water
2. Flammable Liquid	5. Corrosive	
3. Flammable Solid	6. Peroxide Former	
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### Storing Chemical Wastes

Keep the labeled, sealed containers of waste in your laboratory until the scheduled waste pickup. Separate incompatible wastes by storing in separate areas or using secondary containers.

### Disposal Procedure

Chemical waste pickups are generally held on the last Thursday of each month. Bring your containerized waste to your building's designated collection area the day before that month's scheduled pick-up.

*Keep in mind, the last Thursday can fall as early as the 22<sup>nd</sup> of the Month.*

There are three main waste pickup sites:

- *Frick loading dock (Chemistry, Psychology and Visual Arts):* Drop off wastes between 1:00 and 2:00pm on the day prior to the pickup or make arrangements with Kevin Wilkes in the Chemistry stockroom.
- *E-Quad and Bowen:* Bring wastes to Room 7 on the loading dock between 2:00 and 3:00pm the day prior to the pickup.
- *LTL Loading Dock (Molecular Biology, Geosciences, LSI and EEB):* Bring wastes to room 033 between noon and 4:30pm on Wednesday and 8:00 – 9:00am on Thursday.



**Special Problems**

Unidentified or unlabeled chemical wastes cannot be legally transported or disposed. The responsibility for correctly identifying waste rests with the person generating the waste. Do not bring unidentified wastes to the pickup site. Contact EHS for guidance. The department or laboratory will be charged for any necessary testing required by the waste contractor.

**General Recommendations**

Don't purchase more of a chemical than you expect to use in the foreseeable future.

Scale down experiments to a practical minimum to reduce the total amount of waste generated. Where possible, substitute with less hazardous materials

Dispose of your wastes at the completion of a project - don't abandon them for someone else to handle.

**For More Information**

See the [EHS Chemical Waste Disposal](#) web pages for more information, including

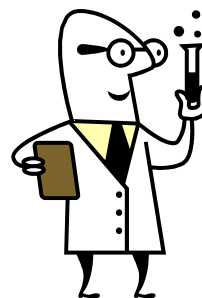
- Ethidium bromide
- Silica gel and dessicant
- Batteries
- Computers and equipment
- Compressed gases
- Empty chemical containers
- Biological and medical wastes
- Sharps disposal
- Radioactive wastes
- Drain disposal policy
- List of non-hazardous wastes
- Lists of hazardous wastes
- Pollution prevention opportunities

**Waste Disposal Trends**

*The Good, the Bad and the Smelly*

**Solvent Accumulation**

A troubling issue has come to light of late. Over the past few months, bulk solvent containers (5 gallon carboys) have been discovered to be mislabeled. On at least three occasions 5 gallon carboys were found with pH levels not consistent with the compounds listed on the waste tag. Two containers had pH of 1.0 and a third had a pH of 13. In the cases mentioned above the lab did not identify the material as a flammable-corrosive mixture, nor were there any acids or bases listed as constituents on the waste label.



**It is extremely important** that the contents of waste containers be correctly and completely identified. Failing to identify chemical constituents such as corrosives in a "solvent-only" waste stream could result in an unexpected chemical reaction or fire, posing a risk to waste disposal staff.

Neglecting to disclose the presence of certain chemicals can also result in a substantial increase in the cost of disposal. The disposal companies charge considerable fees when a container is found to be "off specification". These excess costs may be charged back to the department or lab generating the waste.

Finally, mislabeled waste containers can result in unintentional errors with regard to federal transportation regulations. Each shipping container is labeled and identified using the information provided by you, the generator. If the waste is not identified properly, the final shipping container will also not be properly identified. U.S. Department of Transportation (DOT) will levy fines associated with improperly classified/labeled shipping containers. Fines as high as \$32,5000 per violation have been assessed. Per University policy, such fines are charged to the department or laboratory responsible for the violation.

Remember that simply finding a container in the lab with the words "Hazardous Waste" on it doesn't entitle you to freely commingle your waste. Be sure that the constituents are listed on the label and that the materials are compatible. If there are any questions or concerns about combining wastes, contact EHS.

*The Waste-Paper is distributed to departmental contact persons in hard copy or e-mail approximately one week in advance. If you would like to be added to the distribution, contact Marcia Leach at [marcians@princeton.edu](mailto:marcians@princeton.edu) or 8-5296.*

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