

# The Waste-Paper

“Waste is a terrible thing to mind”

Volume 12 Issue 2

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## Introducing the Employee Learning Center...

The University has a brand new training site ([www.princeton.edu/training](http://www.princeton.edu/training)) for students, faculty and staff designed to provide the campus community with a single location for all of its training needs. This web-based training management system allows individuals to review their own training history as well as view upcoming training sessions offered by several University offices including; Human Resources, OIT, General Council, and EHS. Individuals may enroll in training sessions as they wish, right from the Learning Center.



Employee Learning Center – Main Page

The EHS office has several pages of training posted on the site accessible by selecting the “EHS – Health & Safety” link, located under the left-hand “Quick Links” tool bar on the main Learning Center page. The entire EHS training calendar is posted on the site and new sessions are added regularly. Simply ‘click’ on the training title to enroll in the training session of your choice.

March 2009

Enrollment Name	Event Description	Event Start Date/Time	Event End Date/Time	Event Location
1 Radioactive Materials Safety - 03/03/2009	Radioactive Materials Safety - 03/03/2009 <b>NOTE:</b> Open Source Radiation Basics Training Modules and Test must be completed before being allowed to attend.	3/3/2009 2:00 PM (GMT-05:00)	3/3/2009 4:00 PM (GMT-05:00)	Lewis Thomas Laboratory, Room 003
2 Hearing Conservation Training - 03/11/2009	This training session includes an overview of noise and its measurement, health hazards of noise, permissible noise levels, monitoring, audiometric testing, hearing protection, record keeping, and sources of noise.	3/11/2009 10:00 AM (GMT-05:00)	3/11/2009 11:00 AM (GMT-05:00)	200 Elm Drive, Room 105 (Dept. of Public Safety)
3 Laboratory Safety Training - 03/13/2009	This training session covers the elements of the federal OSHA Laboratory Standard, references and resources, material safety data sheets (MSDS), personal protective equipment, fume hoods, chemical spill response, chemical waste disposal, flammable liq. – H202	3/13/2009 1:30 PM (GMT-05:00)	3/13/2009 3:45 PM (GMT-05:00)	Lewis Thomas Laboratory, Room 003
4 Confined Space Entry Initial Training - 3/23/2009	Mandatory for all employees who are expected to work in, or supervise entry into, confined spaces.	3/23/2009 7:30 AM (GMT-05:00)	3/23/2009 9:30 AM (GMT-05:00)	200 Elm Drive, Room 105 (Dept. of Public Safety)

Example – EHS Training Calendar

Stop by and take a look at the University’s newest training tool.

*What is wrong with this picture?*

One strap on two cylinders.

The cylinder on the left has no cap or regulator. Every cylinder should be stored with the cylinder cap in place or a regulator attached.



Next Waste Pickup

**February 26, 2009**

Bring wastes to pickup area on Wednesday, February 25

- Frick Loading Dock
- LTL Loading Dock
- E-Quad Room 7 (on dock)
- Jadwin Hall Room 125

## Safe Microwave Oven Use In Labs

Microwave ovens are used everyday in offices, homes and labs. Our familiarity with the microwave oven makes it easy to overlook the hazards their use can present in the lab. A common hazard is superheating of liquids. Superheating occurs when a liquid is heated above its boiling point. The superheated state is unstable, and the liquid can suddenly begin vigorously boiling, causing the contents to be rapidly

expelled from the container. To prevent the hazards of superheating:

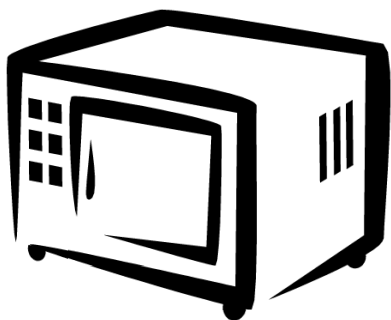
- Before putting the liquid in the oven, place a non-metal object with a surface that is not smooth (e.g., a stirring rod) into the liquid.
- Use a container with a surface that is at least slightly scratched or not completely smooth.
- Tap the outside of the container with a solid object before removing it from the oven.
- Avoid quickly adding another substance (e.g. a powder) to the container

Capping or sealing vials or other containers can lead to pressure build-up. Microwave ovens can heat materials so quickly that even though the cap is loosened to accommodate expansion, the lid can seat upwards against the threads, causing the container to burst. To prevent over-pressurization:

- Do not cover or seal the container, or do so loosely with paper towels or Kimwipes®.
- If sterility is an issue, remove the cap and use a foam plug or cotton.

In addition to heating-related issues, microwave ovens can pose other hazards. Metals, including foils and some stir-bars, can cause arcing, which may damage the magnetron and be an ignition source for flammable or combustible vapors. Operating the oven without anything to absorb the energy can also damage the oven's magnetron.

Manufacturers recommend that at least a glass of water be present while operating a microwave oven to act as a load safeguard.



Other tips for safe microwave use include:

- Keep your microwave oven clean - especially the sealing surface of the door, to avoid leakage of microwave radiation.
- Use non-metallic, microwave-safe containers to avoid melting and spillage.
- Use boiling stones or glass beads if needed.

- Ensure the microwave oven plug is grounded (three-pronged).
- Know the wattage of the unit and adjust the heating time accordingly.
- If you are unsure of a correct heating time, ask for assistance from someone familiar with the unit.
- Use heat resistant gloves, a long-sleeved lab coat and splash-resistant goggles when removing high-temperature materials from the microwave.
- Allow solutions to cool before moving them if you suspect they are superheated.

Microwave ovens serve as a tool to quickly and effectively heat materials in laboratories on a routine basis. Like any tool or power source, always exercise appropriate precautions.

<i><b>EHS HAZARDOUS WASTE CONTACTS</b></i>	
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EHS Web Page <a href="http://www.princeton.edu/ehs">http://www.princeton.edu/ehs</a>	