



LABORATORIES

Health, Safety & the Environment

at Carnegie Mellon University

A Newsletter from Carnegie Mellon University's Chemical Hygiene Officer

April 2007

Lab Safety Review

This month's Lab Safety review topic is **General Lab Practices**.

There are a number of general safety rules applicable to laboratories that do not fall under any one specific category, so we call these "**General Lab Practices**".

1. **Minimize ALL chemical exposures**--don't think that because one chemical may be less harmful than another, that exposures to these are acceptable.
2. **There should be no eating or drinking in working areas of the laboratories.** Most labs allow this at desks only, and only when the desks are not in the immediate areas of chemical usage.
3. **Check glassware and equipment before using,** to ensure that they are not cracked or malfunctioning. Damaged items may cause accidents or spills, as well as the loss of your sample and experiment.
4. **Do not work alone with hazardous materials** unless you have received permission from the lab PI to do so. If you must work alone, ensure that there is some mechanism for you to contact help if an accident occurs. Will there be others who could hear you? Stop in to check on you? Call you from time to time?
5. **Consider the hazards inherent in leaving procedures or experiments unattended.** What happens if equipment malfunctions? What if there is a power failure? What if a condenser hose comes loose and volatile solvents are released? What if a fume hood goes down? Be sure that there is a plan to protect people in your area and building if you leave any procedure unattended. If you cannot ensure safety in these situations, you may NOT leave the experiment unattended.
6. **Perform ALL work with volatile materials in a ventilated area** (such as a fume hood or glove box). Do NOT rely on general room ventilation to offer any protection from chemical exposure.
7. **Plan new procedures with safety in mind.** Feel free to contact EH&S if you have any questions or concerns about new procedures or use of new chemicals.
8. **Lab workers must wear closed toed shoes in the lab.** With summer approaching, this is a chronic problem. The reason for our concern is 1.) That hazardous chemicals may fall on the unprotected skin, and 2.) That sharps or broken glass, frequently found in labs, can harm the unprotected foot.

What is Chemtracker and Why Do I Need to Use it?

[This month we have a guest author, Michael Fouch, the Laboratory Auditor. Our chemical inventory system, Chemtracker, has been in place for several years now, though compliance with the requirement is still spotty in some labs. Michael will be monitoring Chemtracker usage in this year's lab audits.]

Chemtracker is a software package used to maintain chemical inventories here at Carnegie Mellon University. The program was developed at Stanford University and is currently being used by several universities around the country. Access to the program can be found on the

EH&S website:

<http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/LaboratorySafety/Chemtracker.htm>

Once the chemical owner or user obtains a Chemtracker ID and password, they can have unlimited access to their chemical inventory. The program enables chemical owners to track and manage their inventories and EH&S to identify safety and compliance needs. The chemical owner even has the option of creating three user defined fields which can store whatever information might be needed. Default fields include manufacturer, chemical name, physical state, formula, and location. The chemical owner can authorize as many users as he or she sees fit and limit what each user can see or modify.

So now you know what Chemtracker is, why should you use it? Besides the benefits mentioned above, laboratories, research areas, and anyplace that uses or stores hazardous materials must maintain an inventory. This is both a requirement of our University Chemical Hygiene Plan and Allegheny County. Having a chemical inventory promotes chemical waste minimization and reduces the chance of purchasing chemicals you might already own. A chemical inventory helps identify chemicals that have expired or have been around too long to be stored or used safely. Chemtracker allows you to sort your inventory by the date you entered a chemical so it is easy to identify how long a chemical has been in your inventory. Chemtracker also identifies which storage group a chemical belongs in, therefore allowing you to store your chemicals in compatible groups. For these reasons each lab is checked to ensure that they have an inventory in Chemtracker as part of the annual safety audit performed by EH&S. If you have any questions about how to use Chemtracker or to obtain a user ID and password, please contact Michael Fouch by phone at 412-268-3221 or email at mfouch@andrew.cmu.edu.

Upcoming Training—April and May 2007

The next Hazardous Waste and Lab safety training classes will be held Thursday, **April 26** in DH 1209 and Wednesday, **May 16** in Mellon Institute 348. To enroll, please sign up at:

http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Training/training_files/training_laboratory_safety.htm

Upcoming Waste Pick-ups

The following waste pick-ups are scheduled for March and April:

From Mellon Institute, 9:30 - 11:30 AM: **Apr 10, 24, May 8, 22**

From Wean and Doherty Halls, 12:30 - 3:00 PM: **Apr 10, 24, May 8, 22**

From Porter, Roberts, Hammerschlag and other main campus locations, 9:30 - 11:30 AM: **Apr 11, May 9**

From PTC: **Apr 11 and May 9** in the afternoon

From Penn Avenue and Robotics Engineering Consortium: Next pick-up is **May 23**

Computers will be picked up **Apr 12 and May 10**

Remember, you need to be present in the lab for the pick-up--if you cannot, make prior arrangements with EH&S to ensure access to the waste.

Do you need hazardous waste supplies such as bottle labels, waste tags or secondary containment? If so, go to

http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Waste_Recycling/HazardousWaste.htm#HWCertTags

Please print out this newsletter and post or circulate it in your lab!!