

Chemistry Safety Notes

Volume 2, Issue 3

June 2014

"Chemistry Safety Notes" is published by the Chemistry Dept. Safety Committee, written & edited by Debbie Decker, Safety Mgr.

DO's

- ✓ Ask for identification
- ✓ Immediately contact Debbie, Jessica or Susan
- ✓ Be courteous and friendly
- ✓ Provide neutral, fact-based answers
- ✓ Keep notes
- ✓ Take photos and measurements mimicking those taken by an inspector
- ✓ Be prepared to show Injury and Illness Prevention Plan (IIPP)
- ✓ Answer the question that's asked!

DON'Ts

- ❖ Don't give opinions or guesses
- ❖ Don't offer to follow-up later
- ❖ Don't argue



Cal/OSHA Inspection DO's and DON'T's

Cal/OSHA has made three unannounced visits – to UCLA, Berkeley and UCI – as part of the LADA Settlement Agreement. There's a good chance we'll be visited soon. Here is a descriptor of the campus protocol in case an inspector presents him/herself at your laboratory.

Ask for identification. Then call Debbie, Jessica or Susan. One of us will contact EH&S. The Chancellor has assigned EH&S to serve as the management representative on campus. The Cal/OSHA inspector will wait up to an hour for an EH&S specialist to arrive.

The Inspector will probably ask to interview one or more employees privately. Employees have the right to ask for representation provided by the University to be present during the interview.

Make certain all lab workers have documented training on the Department IIPP and Emergency Action Plan (EAP), as well as the lab-specific Chemical Hygiene Plan and other training.

For additional information, see [SafetyNet #143](#).

Which lab coat is the right coat?

Flame Retardant (dark blue): When using air/water reactive materials or large quantities of flammable liquids with an open flame – **Not when using corrosives, unless you're wearing an apron!**

White, cotton or poly/cotton: General lab activities, particularly when using corrosive materials

Barrier with knitted cuffs (striped): When working with biological agents or corrosives.

Light Blue, 100% Cotton/FR: When working as a TA in teaching labs

REMEMBER: Long pants (covered legs), proper footwear and safety glasses in the lab – EVERY TIME you're in the lab – even on the weekend! It's even more important you adhere to basic PPE requirements when fewer people are around!

Required Postings

Outside the Lab:

- GHS postings for the hazards present (flammable, corrosive, etc.) on a yellow "CAUTION" sign – available from Debbie.
- Emergency contacts included on the "Caution" sign: PI, Debbie, Michael S.
- Special hazards – radiation use, high magnetic field, biological agents, laser use

*If you use air/water reactives, please mark that on the "Caution" sign: **W***

Inside the Lab door:

- Emergency evacuation route
- Department Emergency Procedures (with the Safety Committee roster)
- [Safety Net #13](#) – Spill Response
- Campus Emergency Procedures

Smart Lab Initiative

Allen Doyle, Campus Sustainability Manager, has been working with the Franz lab and the Annex Dispensary to put in place some very easy green lab initiatives, including acetone recycling and nitrile glove recycling. Please go to the [Green Lab site](#) for some ideas about how to "green" your lab. Also, you can go to the [Green Champion site](#) to see who amongst your colleagues have taken the challenge to green their lab! I'm told it's easy to do and can help with documentation and safety, too.

Blood Clean Up

What if someone cuts themselves in the lab and there's blood on the floor or counter? It's important to know how best to clean it up, so no one is exposed to a potential pathogen. Here's some advice to inform your response:

- Put on gloves.
- Spray bleach or similar disinfectant on the blood spill.
- Wait a minute or two.
- Cover with paper towels and wipe up thoroughly. Spray a second time and wipe again.
- Put contaminated paper towels and gloves in a Ziploc bag and dispose in regular trash.

This procedure is only applicable to first aid-related blood. Any lab-related spills should follow [Safety Net #127](#) (Biological Spills) or [Safety Net #13](#) (Chemical Spills).

Minors In Lab

I've had some questions about minors working in labs during the summer (and other times). There are several programs that bring high schoolers on campus to have the research experience or you might have a young person in your life who would benefit from the research experience.

Minors may work in University research labs so long as they are supervised at all times and NEVER work alone. They will need to take the UC Lab Safety Fundamentals training and be able to present to you their certificate of completion. If you need help to get them access to the training, please contact Staff Development at sdps@ucdavis.edu. They will also need careful orientation in your laboratory.

The campus policy on [Minors in Lab](#) has a nice checklist you can use to make sure you cover the orientation essentials. The facilitators of the program need to make sure the Waiver has been signed and that those who will be working with minors have their background check in place.

Chemistry Professors Promote Lab Safety

Faculty mentor lab members in multiple ways to ensure safe work environments

By [Jyllian Kemsley](#) *Excerpted from Chemical & Engineering News – June 9, 2014*

ISSN 0009-2347

When it comes to training students and postdoctoral researchers to work safely in academic laboratories, it is hard to overemphasize the importance of the head of the lab—the principal investigator (PI).

“The PI sets the tone for how a lab is going to act and operate,” says [Dominick J. Casadonte Jr.](#), a chemistry professor at Texas Tech University. “If the PI is very safety conscious and has safety as a priority, then students and professionals in the lab will also have it as a high priority.”

Safety-conscious faculty members try to set that tone in an initial meeting with new members of their groups. Such meetings usually include a conversation about the particular hazards associated with work in the lab, an introduction to the lab’s safety manual, and a tour of the lab that includes finding emergency equipment, such as showers and eyewash stations.

Initial meetings also typically include discussion of expectations. It’s important to remember that lab members are trainees, says [Rick L. Danheiser](#), a chemistry professor at Massachusetts Institute of Technology and chair of his department’s safety committee. He and his colleagues believe that their graduate students and postdocs should be able to perform most experiments. But they also expect their group members to seek help from their supervisors if they need it. “One responsibility of a PI is to be available to have discussions when a coworker has any doubt about how to do things safely,” Danheiser says.

Some professors make students write out an experimental protocol or emergency response plan. “Especially if they’re a first-year graduate student, I’ll tell them to write out for me a plan for waste disposal and what they’ll do if they spill to make sure they’re aware of the hazards,” says [Scott E. Denmark](#), a chemistry professor at the University of Illinois, Urbana-Champaign, who is leading an effort to improve his department’s safety culture.

And some faculty do experiments with students one-on-one. “I’m very much a mother hen at least for the first couple of months. I go through every single procedure in the lab with my students,” says Casadonte, who chairs his department’s safety committee.

And when Casadonte’s group got a new glove box last year, he had his group members go through a “what if” analysis to discuss everything that could possibly go wrong with it, and how either the box was built with engineering controls to prevent problems or how users could avoid them. He’s since encouraged his students to apply the thought process to other equipment, such as distillation columns and Schlenk lines for handling air-sensitive materials.

In the end, the important thing to remember about mentoring for safety, PIs say, is to make it an everyday thing.

