

# LAB

# NOTES

Safety Newsletter for Lab Workers

UCSD Environment, Health &amp; Safety Office

## September is Campus Emergency Preparedness Month

Is your lab prepared for an emergency? Be familiar with UCSD emergency preparedness and response procedures from chemical spills in the laboratory, to possible building evacuation, or a campus-wide event.

- Look for the wall-mounted UCSD Emergency Guide and first aid kit in your lab. If they're missing from your lab, contact the RAP specialist (<http://blink.ucsd.edu/go/rap>) for your building to have them installed.
- Prepare for laboratory incidents. Learn how to:
  - Assemble small-scale chemical spill kits
  - Handle chemical spills in laboratories
  - Handle biological spills
  - Clean up minor radioactive contamination

cont. on back ... see Emergency Preparedness

## Do You Need a Radiation Badge?

For most lab personnel, the answer is no. Radiation badges can't detect most lower energy isotopes, such as H-3, C-14, P-33, or S-35, and aren't required for work with relatively small amounts ( $\leq$  mCi) of other isotopes.



Work with greater than 1 mCi of P-32, I-125, Cr-51, or Mn-54 does require a badge and/or ring. Find complete information about UCSD's radiation safety program online at <http://blink.ucsd.edu/menu/rad>, including badge and ring user guidelines.

**Questions?** Contact Scott Langford: (858) 534-1066, [jangford@ucsd.edu](mailto:jangford@ucsd.edu).

## Required Laboratory Safety Training

Individual principal investigators and supervisors must identify job-specific hazards and make sure their employees attend safety training appropriate to the type of work they perform.

**Find out about required and recommended safety training** your research employees need and how to get it: Read "Laboratory and Chemical Safety Training" on Blink at <http://blink.ucsd.edu/go/labchemtrain>.

**Questions?** Contact the EH&S safety training manager at (858) 822-5974 or [ehs-training@ucsd.edu](mailto:ehs-training@ucsd.edu).

## How to Ship Hazardous Materials

UCSD conforms to strict government regulations when transporting hazardous materials. All outgoing shipments of any infectious substance, diagnostic specimen, and other hazardous material **must**:

- Be processed by a Shipping Department certified employee
- Arrive at the destination in good condition
- Present no hazard during shipment

Failure to comply with international and federal transportation regulations when shipping hazardous materials can result in civil penalties of \$32,500 per occurrence and in criminal penalties including five years imprisonment.

If you plan to ship hazardous materials, **you must contact the Shipping Coordinator at (858) 536-3225, Ext. 244 in advance** and carefully follow the guidelines on Blink at <http://blink.ucsd.edu/go/shiphazmat>. Special instructions are indicated for radioactive materials.

Allow several days to complete the required paperwork if your shipment contains **multiple hazardous materials**. Give the Shipping Coordinator advance warning for these shipments.

## The Pressure of Pipetting

Pipetting involves several ergonomic stressors: thumb force, repetitive motions, and awkward postures, especially of the wrists, arms, and shoulders. These can be exacerbated by the mental pressure resulting from the accuracy, precision, and timing demanded in many pipetting procedures.



Minimize or eliminate the ergonomic risk factors with these best practices:

- Use multichannel/electronic pipettors.
- Use the new trigger mechanisms.
- Choose pipettors that best fit your hand.
- Use only the force necessary to operate the pipettor.
- Reduce reach:
  - Use shorter pipettes. This decreases arm and hand elevation and consequent awkward postures.
  - Use low profile waste receptacles for used tips. They should be no higher than the top of the tubes being filled.
  - Use low profile solution containers.
  - Keep items as close as possible.
- Work with your arms close to your body to reduce strain on shoulders, and wrists in a straight, neutral position.
- Keep head and shoulders in a neutral position (bent forward no more than 30 degrees).
- Use adjustable chairs or stools with built-in solid foot stools.
- Don't elevate your arm without support for lengthy periods.
- Avoid resting your forearms on sharp edges.
- Share the work load between the right and left hand.
- Take short micro pauses of at least a few seconds.
- Limit pipetting intervals to 30 minutes or less.
- Rotate pipetting tasks among several people.



## Go to Enrollment Central for Safety Training

Register for safety training on Enrollment Central at <http://enrollmentcentral.ucsd.edu>. Browse "EH&S-Safety" under Course Topics for schedules. Find research safety training at:

- **General Lab Safety & Chemical Safety Training**  
<http://blink.ucsd.edu/go/labchemtrain>
- **Radiation Safety Training**  
<http://blink.ucsd.edu/go/radtrain>
- **Biosafety Training**  
<http://blink.ucsd.edu/go/biotrain>
- **Hazardous Waste Training**  
<http://blink.ucsd.edu/go/hazwastrain>

## Basic Cell Culture Workshop

Learn cell culture techniques and information for working more efficiently, effectively, and safely in the Basic Cell Culture Workshop presented by the CORE Cell Culture Facility. Find course schedules and register via Enrollment Central at <http://enrollmentcentral.ucsd.edu>.

## Emergency Preparedness

continued

- Activate UCSD's Hazardous Materials Emergency Response Team for large or extremely hazardous spills
- Respond to needlestick and exposure to blood and body fluids
- Respond to laser accident emergencies
- Check the UCSD Emergency Status page in the event of an emergency affecting campus.
- Read about Emergency Preparedness Planning for UCSD, including UCSD's Emergency Operations Plan and your department's role.
- **Consider earthquakes** when establishing your lab. Read Laboratory Earthquake Preparedness for ways to minimize possible damage.

Find information about all these topics on Blink's Lab and Chemical Safety Menu at <http://blink.ucsd.edu/menu/lab>. Contact the Research Assistance Program specialist for your building if you have questions about preparing your lab: <http://blink.ucsd.edu/go/rap>.



### ChemCycle

Chemical Reuse & Recycling Program  
<http://chem-tech-ucsd.edu/Reuse/>  
It's free!