



Safety Talks

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We're also on the web:

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Laboratory Safety (Eye and Face Protection)

A Biology graduate student splashes a phenol mixture in her eyes. She is not wearing eye protection. She is lucky that the highly toxic and corrosive phenol did not cause permanent eye injury.

An Engineering graduate student is removing a caustic chemical from a plastic tube. He is not wearing eye protection. He shakes the tube to remove the caustic. The resulting unintended chemical splash caustic burns to his eyes.

A Geology Post-Doc removes a plastic safety shield and uses a hydrogen torch to seal a quartz tube. He removes his safety glasses to inspect the tube and the tube explodes in his face, causing deep facial cuts but, fortunately, no eye damage.

In all of these incidents, the researchers were fortunate that no long term injuries resulted. Had they worn appropriate eye and face protection, these potentially-serious injury-causing events could have been avoided. Depending on your procedure, eye and face protection may vary from safety glasses to chemical goggles to face shields. It depends on how you are using the material and its potential to affect your eyes and face.

To avoid injuries, follow your Standard Operating Procedures (SOPs). Wear eye and face protection appropriate for the operation and as written in the procedure. Ask your PI/Supervisor to review your procedures. Also, review the MSDS for the chemicals you will be working with.



(source: University of Maryland EH&S, newsletter volume 2, issue 2)

Give your kids a safe Halloween.

If you're planning to let your kids go trick or treating this year, review this Halloween safety checklist before the big day:

- * Are your kids wearing flame resistant or flame-retardant costumes with reflective strips?
- * Have you avoided costumes that are long or billowing and might cause trips or falls?
- * Can they see through masks? Painting their faces or using makeup is safer.
- * Are they carrying a lightweight flashlight with a strong beam and good batteries?
- * Have you reviewed the rules for crossing streets?
- * Are young kids accompanied by an adult and are older kids trick or treating with a group?

(Source: BLR newsletter, October 2007)

Ban Colds With Clean Hands

Washing your hands frequently is one of the best things you can do to prevent colds, say public health experts.

Be sure to soap up after using the bathroom and blowing your nose. But what if a sink isn't available? You may be able to build your defenses by adding a waterless, alcohol-based hand gel to your weaponry, according to a recent study. Put a dollop of gel on your hands and rub them until they are dry.



WATCH YOUR STEP ON STAIRS!

Stairs are a major workplace and home fall hazard. Take these precautions:

- * Make sure the stairwell is lit.
- * Take one step at a time.
- * Use handrails.
- * Pay special attention on steep steps.

Safety Tips

To attach a vise properly, place bolts in all holes of the base and use lock washers under the nuts so that the stationary jaw projects slightly beyond the edge of the workbench.

[Get more safety tips.](http://www.nsc.org/resources/Factsheets)

www.nsc.org/resources/Factsheets



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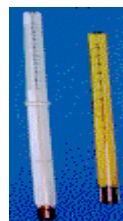
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Alternatives to Mercury Thermometers in the Laboratory

Mercury is persistent in the environment. Its physical and chemical properties have been used to man's benefit since its discovery in pre-history. Unfortunately, like many things man uses to his benefit there are disadvantages and even risks associated with use.

Mercury thermometers in laboratory settings are ubiquitous. They can be found in water baths, inside refrigerators, or even built into laboratory appliances. The mercury in an intact thermometer is a benefit to research. Once the thermometer is cracked or shattered it becomes a liability.



Represented above are non-mercury thermometers.

A shattered or cracked thermometer in a laboratory sends droplets of mercury throughout the work area. Some of those droplets are visible some are not. If the mercury comes into contact with an electronic circuit board your lab may need a new computer or appliance as the mercury may render it inoperable. Also the area that is contaminated with mercury now needs to be cordoned off and decontaminated. No work should occur in the contaminated area due to the possibility of the contamination being spread further.

Mercury is toxic to humans and the environment. The EPA regulates any compound containing mercury as a hazardous waste at 0.2 mg/l. OSHA regulates the workplace atmosphere at the legal airborne permissible exposure limit (PEL) of 0.1 mg/cubic meter, not to be exceeded at any time. Exposure over time may damage the nervous system, the kidneys, or cause birth defects.

Why take the risk? Switch your thermometers out with non-toxic alternatives.

(source: UMB, SafetyAlert #0103)

Reactive Chemicals Can you work safely with them?

Reactive chemicals are hazardous because they can react—sometimes violently—with air, water, or other chemicals. Reactive chemicals include oxidizers, spontaneously combustible chemicals, and peroxide-forming chemicals. Find out how much you know about reactive chemical safety with this short quiz.

1. The best place to look for information about reactive chemical health and safety hazards is the MSDS. True or False
2. The two major safety hazards associated with reactive chemicals are _____ and _____.
3. When chemicals are intentionally mixed in workplace processes, there is no danger of hazardous reaction. True or False
4. Oxidizers react with oxygen in the air, igniting and burning without any ignition source. True or False
5. What type of PPE might you need to work with reactive chemicals? _____.

(1) True. (2) Fire and explosion. (3) False. Control or containment of the intended reaction could be lost, or an unintentional reaction could be started. (4) True. (5) Safety goggles, face shield, chemical-resistant gloves, chemical-resistant clothing, and possibly a respirator.