



# NSF SAFETY DEPARTMENT

February 2004 Issue

## SAFETY AND HEALTH NEWSLETTER

### SAFE STORAGE FOR CHEMICALS



Chemicals are everywhere, but in some industries they are essential elements in every part of the process. Even when the job is as fundamental as cleaning or construction, chemicals are present, and wherever chemicals are present precautions should be taken.

One obvious way to reduce the hazards inherent with many chemicals is to keep the quantity on hand at a minimum, but where chemicals are an integral part of the process or just used frequently, this simply may not be practical. Proper equipment and handling techniques are essential in order to reduce the risks of on-site chemical storage.

Fortunately, information on proper chemical storage is easy to come by. The requisite labels on chemical containers carry essential information. Chemical reference guides are generally available, and government regulation (29 CFR 1910.1200) requires that a Material Safety Data Sheet (MSDS) is on hand for every chemical used in a workplace.

Proper identification, temperature, ventilation and ignition control are all important considerations when it comes to using and storing chemicals. Additionally, preventing incompatible materials

from coming into contact, a practice commonly called "segregation," is at the heart of safe chemical storage. For instance, acids should never be stored with bases, and oxidizers should never be stored with organic materials or reducing agents. Failure to properly segregate certain chemicals can result in fire, explosion, the release of toxic gases or other violent reactions. Effective segregation of chemicals requires adequate distance, a physical barrier, or both.

Cabinets are commonly used for storing and segregating chemicals, but matching chemicals and cabinets correctly is important. Corrosives, such as strong acids and caustics, will corrode most metal cabinets. For these chemicals, a non-metallic or epoxy-coated cabinet will last longer. (The exception is hydrochloric acid which should not be stored in any kind of metal cabinet.) Perchloric acid should never be stored in a wooden cabinet. Spills of some other acids and bases may damage painted surfaces.

For cabinets designed for flammables, knowing and adhering to maximum allowable container sizes and maximum quantities is important. These limits are based on the class of the flammable, and classification is determined by flash point and boiling point.



Reference: Safe-T News

### When should workers wear PPE for respiratory protection...

...When engineering control are not feasible, workers must use appropriate respirators to protect against adverse health effects caused by breathing air contaminated with harmful dust, fogs, fumes, mists, gases, smokes, sprays, or vapors. Respirators generally covers the nose and mouth or the entire face and head and help prevent illness and injury. A proper fit is essential, however, for respirators to be effective. All employees required to wear respirators must first undergo medical evaluation.



Reference: OSHA FACT NEWS

### SPRAINED ANKLES DO'S AND DONT'S

Not all ankle sprains require an emergency room visit. If you can put weight on the ankle and don't have lots of pain and swelling, the sprain is probably minor and can be cared for alone.

**DO** cool the injured area immediately for 10-20 minutes with some crushed ice in a plastic bag or towel. Repeat the "icing" every two hours for the first 1-2 days. Tip: A poly bag of frozen peas makes an excellent and easy cold pack for icing a sprain—it conforms to your body.

**DON'T** further strain the sprain. As long as your injured ankle hurts, let it rest by limiting the weight you put on it. Use crutches or a cane if you need to walk.

**DO** consider a pain reliever. Taking 600mg of ibuprofen three times daily or 500mg of naproxen

twice a day will reduce inflammation. Acetaminophen can also help. But avoid aspirin, which actually increases swelling.

**DON'T** leave your ankle exposed; wear an elastic bandage to protect and support it. But don't wrap it so tightly that blood can't circulate. Remove the bandage and reapply it at least once daily.

**DO** elevate your injured ankle whenever you sit or lie down to reduce pain and swelling. *Best:* tuck pillows under your leg or rest it over the arm of couch—with your heel slightly higher than your chest.

**DON'T** wait if it's an emergency. See a doctor immediately if you heard a pop, the ankle is bending abnormally, or the swelling is severe and the skin discolored. And consult a doctor right away if pain makes it impossible for your ankle to bear any weight for more than a day.

Source: Navy Safety Center



### POD NOTES from Naval Safety Center

*If you think something is unsafe, unhealthy, dangerous practice or condition or violation of a safety or health regulation you may be right! Bring it to the attention of the work center supervisor, the Safety Officer. Or you can fill out a Safety Hazard Report form available in your work center and drop it off at the Safety Office*



## Get A Grip on Ergonomics: Eye Care

Eye strain and fatigue can be a side effect of almost any job. Keep your eyes in great shape with these exercises.



**The Squint.** Scrunch your eyes tightly closed and frown (not so tight that it hurts). Then, keeping your eyes closed,

relax your facial muscles.

**The cross.** Cross your eyes so you're looking at your nose, hold for a second, then relax.

**“Follow the pencil.”** Hold a pencil or a finger in front of your face. Draw it to the right, following it with your eyes, until you can't see it anymore. Then bring it to the left, up, down and in toward your nose, following it with your eyes the whole time. Keep your head still and

move eyes slowly.

**Other eye protection tips:** Be sure to wear proper eye protection for your job...work in adequate lighting...take breaks from the computer...wear your glasses or contact lenses...get regular eye exams. Proper eye care can reduce headaches, prevent eyestrain and help keep your eyes healthy for a lifetime.



Source: OSHA Facts

## Machine Guards

Guards are installed on machines to protect operators and others in the area from injury.



Today, most machines at most worksites are equipped with guards. The dramatic improvement in guarding over the past dozen or so years has meant fewer employees sustaining the crushing injuries that used to occur all too frequently. Yet even today some operators find ways 'of putting themselves in danger by removing or bypassing machine guards or tampering with interlocks so they can operate their machines faster. *In this department, failure to use the guards provided is cause for disciplinary action.*

Of course, it is often necessary to remove a guard to service or adjust a machine, a tool, or a piece of equipment. When doing

this, be sure the power is turned off and the switch is locked out or tagged out. When the service job is completed, make sure the guard is replaced securely and is working properly. Breakdowns, jammed work, and broken parts sometimes cause us to forget ordinary safety procedures. Very often, to remedy these conditions it is necessary to get into out-of-the-way places. Extreme caution is needed, because in some cases the location of the trouble cannot be guarded. So be sure that basic and added precautions are taken to avoid any movement of the parts. *Among the kinds of setup to be extra careful around are:*

*Meshing gears, in-running rollers, Reciprocating parts, Chain and sprocket drives, Cams and rollers, Belts and pulleys, Flywheels, Cutting or abrasive, surfaces, Cooling fans, Conveyor equipment, Rotating couplings and shifts, Worm gears, Hot*

## or overheated parts

Guards are there to prevent injuries and should never be tampered with. It is to everyone's advantage to make sure all guards are placed properly-and it pays to double-check; hands, arms, and lives are saved that way. If you see a piece of equipment without a guard, or any other unsafe condition, report it to your supervisor report it to your supervisor immediately, whether the equipment is in your work area or elsewhere.

Let machine guards do the job they were designed for-protecting you and co-workers from injury.



Source: Safety Talks, Volume I



*Take care of your ears.*

*Use hearing protection on and off the job if you were expose in noise hazardous areas. Hearing loss occurs gradually and it can't be reversed.*

Reminder from OSHA Fact News

## THE FOLLOWING IS THE SAFETY DEPARTMENT'S ACTIVITIES FOR FEBRUARY 2004

- ENLISTED SAFETY COMMITTEE MEETING—5 Feb 04, 1500H at NSF Conference Room
- SAFETY REPRESENTATIVES BRIEFING—18 Feb 04, 1330H at NSF Safety Training Room. Target audience: All newly designated Safety representatives
- HAZMAT COORDINATORS BRIEFING—19 Feb 04, 1330H AT NSF Safety Training Room. Target Audience: All newly designated Hazmat Coordinators
- OSH INSPECTION—NSF PWD, VP-47/AIMD Hangar, PRW-1, NCTS, PACAF-Ammo Storage
- ISLAND INDOCTRINATION CLASS (Safety) - Bi-weekly, Acey Deucey Room. Target Audience: All new personnel (mandatory for officers, enlisted and civilian personnel).

THERE'S ALWAYS ROOM FOR IMPROVEMENT . VISIT US AT [HTTP://WWW.ICE.DISAMIL](http://www.ice.disamil). AND TELL US HOW WE CAN IMPROVE THE ISLAND'S SAFETY PROGRAM.

