

The information in this newsletter has been provided by Pamela Massey, Department of Environmental Health and Safety

TENNESSEE HAZARDOUS CHEMICAL RIGHT TO KNOW LAW CHANGED

One of the original requirements of the Tennessee Hazardous Chemical right to Know Law required all manufacturing employers to compile and maintain a workplace chemical list for the hazardous chemicals known to be present in their workplace. The law also required the list be filed with the commissioner of Labor and Workforce Development, and updated as necessary but not less than annually.

The filing portion of the law has been changed to provide that “The workplace chemical list shall be filed with the commissioner within ninety-six (96) hours of a request by an authorized representative of the commissioner.” Whereas manufacturing employers are still required to compile and maintain the workplace chemical lists they are only required to file a copy with the commissioner when specifically requested.

The complete article can be viewed at: <http://www.state.tn.us/labor-wfd/tosha.html>
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Chemical inventories need to be readily available for TOSHA upon phone request. The intent is to have updated chemical lists faxed within only a few hours or be subject to compliance action.

The phone call will be made to EHS. If your department has no chemical inventory for us to access, it will likely be subjected to a fine. As yet, not every area on campus has completed their chemical inventories. For those that have completed their inventories, they must be updated on an annual basis.

Don't wait for TOSHA to contact us to try to do this, as there will not be time then. The time to complete your inventory is now!

Questions Every Laboratory Worker Should Be Able To Answer

Who is your Chemical Hygiene Officer?

Where is your Chemical Hygiene Plan?

To what chemicals are you exposed?

Where can copies of the Material Safety Data Sheets (MSDS) for those chemicals be obtained?

What are hazards associated with these chemicals?

How do you protect yourself from these hazards?

BE SAFE!

If you handle any hazardous chemicals (acids, bases, flammable solvents, toxics, etc) always wear appropriate gloves (not latex), a lab coat (buttoned up) and leather closed toed shoes. For help in selecting appropriate gloves for the chemicals you use, call EHS at 4-5084.

OSHA CHEMICAL REACTIVITY INFO

OSHA has added a Chemical Reactivity Safety page to their Web site. This new resource material is intended to help companies reduce injuries, illnesses and fatalities during chemical manufacturing and operations.

Visitors to the site will find information on recognizing, evaluating and controlling chemical reactive hazards, along with compliance requirements and access to available training resources.

A new book, Essential Practices for Managing Chemical Reactivity Hazards, published by the Center for Chemical Process Safety (CCPS), is available through the site. It includes a compendium of best practices from leaders in chemical processing. Safety and health managers, engineers, chemists and others are likely to find the book useful.

Visitors can also access OSHA standards and fact sheets on process safety management (PSM) and additional reactive material hazard information from CCPS. A link takes readers to a chemical reactivity worksheet provided by the National Oceanographic and Atmospheric Administration's Office of Response and Restoration. The worksheet includes a database of reactivity information for more than 6,000 common hazardous chemicals and details the dangers that can arise during chemical mixing.

Go to: <http://www.osha.gov/dep/reactivechemicals/index.html>

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What the Heck is a Lab Checkout?

Graduating? Retiring? Leaving the University for *any* reason? As part of your last-day clearance, you must complete a Chemical Laboratory Check-out if you work with *any* chemicals at all. The check-out is quick and simple, but it must be done! A representative of EHS will come to your laboratory work area and you will need to be there, too. It only takes 5 to 10 minutes, but is essential to keeping our costs of hazardous waste disposal down.

Each year we spend tens of thousands of dollars just to have unknown chemicals identified. Often, these “unknowns” turn out to be nothing but water! But, we still must test before we can dispose of them. Every container in your laboratory must be labeled with its contents. The only time you can get away with not labeling a container, is if you decant into it, and use it immediately. If you pour something into a beaker, then walk out of the lab for any reason and for any length of time, you are in violation. Label your containers and we can all be safe!

Professors, when you are retiring or leaving the University for any other reason, please contact us so that we can properly dispose of chemicals that will not be wanted by the next occupant of your lab space. Chemicals that are in good condition may be usable to the next researcher, but older chemicals or chemicals that are degraded or otherwise unusable need to be discarded through our office. Don't make someone else inherit your mess!

So, when you are leaving UT, call EHS at 4-5084 to make an appointment. Please give us at least several days notice so we can work your checkout into our busy schedule! Please do not wait until your last day. We make every effort to schedule your appointment for your convenience, but when someone waits until their last day, it can make it very difficult for us to get there due to prior commitments that we may have. Thank you.

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. An MSDS will answer these questions:

- Is the chemical a flammable or combustible?
- Is the chemical a corrosive?
- Does the chemical need to be stored at other than ambient temperature?
- Is the chemical an oxidizer or reducer?
- Is the chemical light-sensitive?
- Does the chemical require any special handling procedures?

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.

Storage cabinets specifically designed for flammable and combustible materials are available. 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.

To learn more, see EZ Facts® No. 181, Chemical Compatibility Concerns in Storage. Go to:

<http://www.labsafety.com/refinfo/ezfacts/ezf181.htm>.

For a selection of safety cabinets and other chemical storage supplies, go to:

http://www.labsafety.com/store/dept.asp?dept_id=14.

For a selection of chemicals and reagents, go to:

http://www.labsafety.com/store/dept.asp?dept_id=36971.

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Safe Use of Compressed Gas Cylinders

Compressed gases present several hazards. Labels on the cylinder and the Material Safety Data Sheet (MSDS) supplied with the gas tell you about the hazardous properties of the gas; such as toxic, flammable, or oxidizer. In addition to the gas hazards, compressed gas cylinders pose other hazards simply because they contain gas under pressure.

Regardless of the properties of the gas, any gas under pressure can explode if the cylinder is improperly stored or handled. Making a balloon fly around by suddenly releasing the air is amusing, but a flying cylinder is not so funny. The principle is the same for both a balloon and a compressed gas cylinder. Improperly releasing the gas from a compressed gas cylinder is extremely dangerous. Cylinders are definitely not balloons--they are hard and heavy. A sudden release of the gas can cause a cylinder to become a missile-like projectile, destroying everything in its path. Cylinders have been known to penetrate concrete-block walls. To prevent such a dangerous situation, there are several general

procedures to follow for safe storage and handling of a compressed gas cylinder:

- Store cylinders in an area specifically designated for that purpose. This area must protect the cylinders from being struck by another object. The area must be well-ventilated and away from sources of heat. It must be at least 20 feet away from highly combustible materials. Oxidizers must be stored at least 20 feet away from flammable gases.
- Cylinders must not be dropped or allowed to fall. Chain and rack them in an upright position during use and storage. When transporting cylinders, they must be secured from falling.
- When moving a cylinder, even for a short distance, all the valves must be closed, the regulator removed, and the valve cap installed. Never use the valve cap to lift a cylinder. If you are using a crane or some other lifting device to move a cylinder, use a cradle or boat designed for that purpose. Never use a sling or a magnet to move a cylinder.
- Never permit cylinders to contact live electrical equipment or grounding cables.
- Cylinders must be protected from the sun's direct rays, especially in high-temperature climates. Cylinders must also be protected from ice and snow accumulation.
- Before the gas is used, install the proper pressure-reducing regulator on the valve. After installation, verify the regulator is working, that all gauges are operating correctly and that all connections are tight to ensure that there are no leaks. When you are ready to use the gas, open the valve with your hands. Never use a wrench or other tool. If you cannot open it with your hands, do not use it.

Following these procedures will help prevent accidents. Remember, your safety when using compressed gas cylinders depends on you.

From: <http://www.webworldinc.com/wes-con/safety2.html-ssi>

SPECIAL POINTS OF INTEREST:

- *Weekly chemical waste pickup for Walters Life Science Building: Wednesdays, from 1:00-2:00 pm. The waste room is located on the second floor, outside the hallway where compressed gas cylinders are stored.*
- *Weekly chemical waste pickup for Science and Engineering Research Facility: Wednesdays, from 2:00– 3:00 pm. Room # 207-B (on the loading dock)*
- *To schedule a safety seminar for your department or lab, call EH&S at 4-5084*
- *If you need a lab checkout, please schedule it several days in advance.*

EMERGENCY AND OTHER NUMBERS

Environmental Health & Safety - 974-5084
UTIA Safety Officer - 974-4904
UT Radiation Safety - 974-5580
UT Police - 974-3114
UT System-Wide Safety Officer - 974-4341
UT Workman's Comp. - 974-8170
UT Risk Management - 974-5409
UT Recycling Coordinator - 974-5107
Knox County Emergency - 911
Poison Control Center - 1-800-288-9999
Health Department - East Tennessee Regional Office - 546-9221
Food & Drug Administration - 545-4601
American Red Cross - 1-800-564-1234
Tennessee OSHA - 594-6180
Tennessee Dept. of Environment and Conservation - 594-6035

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