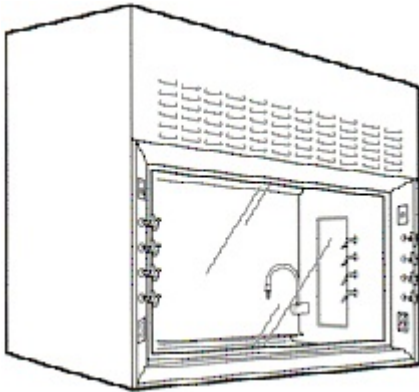


SAFETY WAVE

Chemical Fume Hood Safety



The laboratory fume hood is one of the most common and important safety devices in a laboratory, so it is important to ensure that fume hoods are achieving maximum containment to provide optimum protection. Several factors decrease fume hood containment: excessive storage of equipment and chemicals inside the hood; high pedestrian traffic, fans, air-conditioning vents and doors around or near the fume hood; blockage of baffle slots (exhaust openings in the back of the hood); and a high sash position (open hood face). These factors result in the generation of turbulence inside the hood, cross-drafts that disrupt hood air-flow patterns, and decreased face velocity.

Follow these guidelines for proper hood use:

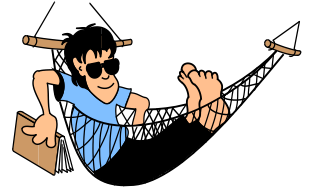
- * If large equipment must be used or stored inside the fume hood, place the equipment on blocks at least two inches off the work surface so the baffle slots are not blocked. This allows air to flow beneath the equipment.
- * Do not use the fume hood interior for a chemical storage cabinet. However, if some chemical storage inside the hood is necessary, place the containers or shelving against the side walls (not the back wall) of the hood so the baffle slots are minimally blocked.
- * Do not keep loose paper towels or wipes inside the hood. These materials can get caught in the exhaust fan and result in fume hood downtime.
- * Equipment and other materials should be kept at least six inches behind the sash (hood opening) during experiments. This will reduce the exposure of personnel to chemical fumes that may escape into the lab due to small cross-drafts.
- * When the hood is not in use, keep the sash all the way down. When the hood is in use, keep the sash as low as possible to protect yourself against explosions or chemical splashes.
- * The fume hood is not a substitute for personal protective equipment. Wear your safety goggles, gloves, and lab coat while working in a fume hood.
- * Check your airflow indicator and/or alarm before using the fume hood to be sure the exhaust fan is on and operating.
- * If your airflow indicator shows that there is not enough airflow or your hood alarm goes off, contact Facilities Services to have the problem corrected. Discontinue all work and ensure that the problem has been corrected before you continue.

Note: All laboratory fume hoods at Tulane are tested annually by OEHS and an inspection sticker is placed near the sash. If the hood is not working properly, a brightly colored warning label indicating this is placed on the sash and Facilities Services is notified to try to find and correct the problem. Please heed any warning signs placed on your fume hood.

Contributors: Kim Chapital, Pam Fatland, Jay Folse, Mitzi Hithe, Bruce McClue, Susan Welch

Spring and Summer Safety Tips

An increase in outdoor activities during spring and summer means more fun for all the family. We all enjoy activities such as biking, swimming, and barbecues. However, the Consumer Product Safety Commission (CPSC) warns that personal injuries also rise during this time of year and we all need to take precautions to prevent serious injury.



The CPSC offers the following tips to avoid injury:

- * Wear a helmet when biking, skating, skate boarding, horseback riding, and when riding scooters and all terrain vehicles (ATV's).
- * Use "layers" of protection around swimming pools. This includes placing barriers completely around the pool to restrict access, use door and pool alarms, and supervise children around the pool.
- * Burning charcoal products produces deadly carbon monoxide. Never bring charcoal grills inside.
- * Falls on hard surfaces cause 60% of playground injuries. Avoid using concrete, asphalt, or packed dirt surfaces and choose, instead, at least 9 inches of wood chips or mulch in play areas.
- * To prevent serious injuries using trampolines, allow only one person at a time and do not allow somersaults. Use a shock absorbing pad to completely cover the springs and place the trampoline away from structures, objects, and play areas. Kids under 6 should not be allowed on full size trampolines.
- * Windows can be made safer for young children by using window guards to prevent falls from open windows. Another option is to install window stops that do not allow windows to open more than 4 inches. Also, be careful to keep furniture away from windows in order to prevent children from climbing up and through the window.
- * When mowing the lawn, keep small children away and turn off equipment if they enter the area. Be careful when attempting to mow a sloping lawn. Riding mowers should always be driven up and down the sloped area and never across it.

With a few extra precautions, spring and summer can be fun and safe for all the family.

The Consumer Product Safety Commission (CPSC) is charged with protecting the public from unreasonable risks of serious injury and death from more than 15,000 types of consumer products. The CPSC is committed to protecting consumers and families from products that pose a fire, electrical, chemical, or mechanical hazard or can injure children. More information is available on the CPSC website: www.cpsc.gov.

It's That Time Again... (Hurricane Preparedness)

Hurricane season is from June 1 to November 30 and all University departments and personnel are urged to review and update both their work and personal plans to prepare and respond to hurricanes. The Louisiana Governor's Office of Homeland Security and Emergency Preparedness has a wealth of information on hurricane planning and response (See www.ohsep.louisiana.gov/hurricanerelated/hurricaneindex.htm).

The University also takes steps to plan and prepare for hurricanes. Each department should prepare a plan for safeguarding University property that should include, as a minimum, procedures for safeguarding all critical equipment, research materials, and important documents. Contact information for all departmental personnel should be updated periodically and reviewed at the start of each hurricane season. Further guidance is available at the Office of Emergency Preparedness website: <http://oep.tulane.edu>.

When a hurricane threatens, the University's Senior administrators will assess the storm and determine the level of campus preparation. The group will continue to track the storm and post updates on both the Tulane Alert line (504-862-8080 or 1-877-862-8080) as well as the Tulane Emergency website: <http://emergency.tulane.edu>.

NOTE: Tulane buildings are NOT official hurricane shelters designated by the Federal Emergency Management Agency, Red Cross, or the City of New Orleans. All students, faculty, and staff must leave campus when instructed to do so.

Supervisor's Guide to Hazard Communication (HAZCOM) Revised

A newly revised Supervisor's Guide to HAZCOM is available at <http://www.som.tulane.edu/oehs/chemrtk.htm>. This document is intended to provide answers to any questions you may have regarding compliance with the OSHA HAZCOM Standard. General training on the OSHA HAZCOM Standard and Tulane's HAZCOM Plan is also available on the OEHS website (www.som.tulane.edu/oehs/onlinetraining.html). For specific information on a particular chemical you may be using, contact your supervisor.


In order to ensure chemical safety in the workplace, information must be available about the identities and hazards of the chemicals present. OSHA requires that chemical manufacturers and importers evaluate the hazards of the chemicals that they produce or import, and prepare labels and Material Safety Data Sheets (MSDSs) to convey the hazard information to their customers. All employers with hazardous chemicals must have labels and MSDSs for their exposed workers and must train the workers to handle the chemicals in a safe manner. The details of Tulane's HAZCOM program can be found in the university's Environmental Health and Safety Policies and Procedures Manual at <http://www2.som.tulane.edu/oehs/safety/12hazcom.pdf>.

As part of Tulane's HAZCOM plan, Material Safety Data Sheets (MSDSs) are available online at <http://www.som.tulane.edu/oehs/msds.htm> or you may contact OEHS. OEHS maintains a hard copy library of MSDSs at its main office (Room 1156 Tidewater) for all chemicals listed on Tulane's inventory. This inventory is submitted annually by principle investigators and supervisory personnel throughout Tulane's campuses, and is compiled and maintained by OEHS for emergency response and reporting purposes. OSHA allows electronic access to MSDSs in the work area as long as a hard copy of the MSDS can be obtained quickly in an emergency and as long as personnel are familiar with how to obtain the MSDS for any chemicals that they may be using. Currently MSDS formats vary by manufacturer, but all contain information on the properties and hazards associated with a particular chemical. (See article below on GHS for related information on MSDS formatting.)

Labeling is another essential means for transmitting chemical information. Labels on incoming containers must not be removed or defaced, unless the container is empty. If chemicals are poured from their original container, the new container must be compatible with the chemical. As a rule, do not put chemicals in old food/beverage containers. If transferring to empty containers of commercial products, be sure to obscure or remove the old label and re-label properly. Always label containers with the full name of the chemical (no abbreviations or symbols) and any associated hazards (i.e., flammable, corrosive, toxic, etc.). Labels must be legible and in English. If the new container will be left for a period of time, or if more than one person will be using it, the new container must be appropriately labeled. (Hint: Squeeze bottles and spray bottles often found near sinks must be properly labeled.)

Be sure to review the revised Supervisor's Guide to HAZCOM for further information on this OSHA Standard.

Globally Harmonized System (GHS) for Chemical Classification



As mentioned, Material Safety Data Sheet (MSDS) formats vary significantly by manufacturer, although they all contain information on the properties and hazards of the designated chemical. In the early 1990's, an international group got together to try to develop a globally harmonized system (GHS) for hazard classification and labeling of chemicals to protect the health and environment worldwide and to facilitate global trade in chemicals. The GHS system includes internationally agreed upon cautionary statements as well as symbols/pictograms for chemical properties. The United States is working toward adoption and implementation of this promising system at the current time (for more information see www.osha.gov/SLTC/hazardcommunications/global.html and www.osha.gov/dsg/hazcom/ghs.html). Based on the GHS, International Chemical Safety Cards (ICSCs) are now available from the National Institute for Occupational Safety and Health (NIOSH) on over 1300 substances (see www.cdc.gov/niosh/ipcs/nicstart.html). It is hoped that once the GHS is adopted, labeling and MSDS information regarding chemicals will be standardized throughout the world.

Heat Resistant Asbestos Gloves & Clamps

Initially used by the ancient Greeks who spun it into a cloth-like material, asbestos is a naturally occurring mineral that has been known to man for centuries. In modern times, asbestos has been placed in more than 3000 materials by manufacturers who valued both its structural strength and insulating properties. Because of its good insulating properties and its ability to be woven, asbestos was used in heat-resistant gloves. Some woven lab gloves, mitts, sleeves and glass apparatus clamps used in high temperature applications in the lab may contain asbestos. While these items provide good protection from heat during work activities in the lab, they can become worn or torn due to work activities. If gloves or other items become damaged or worn due to use, they can release asbestos fibers into the air that may pose a potential health risk to lab workers.

Laboratory workers who use gloves, mitts, sleeves, or glass apparatus clamps that they know or suspect contain asbestos should contact OEHS at (504)988-5486 for proper disposal. OEHS can also assist with recommending a suitable replacement.

Safety Practices to Minimize & Dispose of Hazardous Waste

There are several things that can be done to help minimize hazardous wastes here at Tulane:

- * Check current inventories before making chemical purchases.
- * Audit chemical supplies regularly and use inventory control.
- * Substitute less hazardous materials when possible.
- * Reduce the scale of experiments where possible.
- * Purchase only the quantity of chemicals required for specific projects.
- * Avoid mixing hazardous waste with non-hazardous waste.
- * Train personnel to avoid excess waste generation

Never dispose of hazardous waste in the sink or trash. Containerize all hazardous waste in sealed, compatible, properly labeled containers. Labels should contain the words "Hazardous Waste" and state the full name of the material (no symbols or abbreviations) and the associated hazards (flammable, corrosive, toxic, etc.). Hazardous waste labels are available from OEHS if needed. Keep waste containers closed at all times except when adding waste. To contain spills, use secondary containment when storing hazardous waste. Clean up spills when they occur or contact OEHS for assistance. Be familiar with emergency plans in the event of a spill or release and make sure all personnel are trained on emergency and disposal procedures. For further information on hazardous waste, or to request a pickup, contact Bruce McClue, Hazardous Waste Supervisor, at (504)988-2865 or email bmccclue@tulane.edu.

Environmental Health & Safety

Pam Fatland, Editor

Tulane University TW16

1430 Tulane Avenue

New Orleans, LA 70112-2699

Phone (504)988-5486 Uptown (504)865-5307

FAX (504)988-1693

Web site <www.som.tulane.edu/oehs>

Keep A Straight Head...

Your monitor should be positioned directly in front of you during computer work. However, space constraints often result in the monitor being pushed to the side or into the corner. Repeatedly turning your head or holding it in awkward positions places considerable strain on your neck muscles. If you are unable to position the monitor directly in front of you consider adding an articulating keyboard platform.



details

Source: <http://details-worktools.com>

Tulane University

Office of Environmental Health & Safety

Tulane University, TW16

1430 Tulane Avenue

New Orleans, LA 70112-2699