

Michigan Lab Explosion Costly

A laboratory explosion at Michigan Tech University (MTU) caused a research project to be cancelled and required an expensive cleanup. According to a source at MTU, sodium aluminum hydride, with some trace amounts of proprietary materials, was being used in a glove box under an inert atmosphere when a small amount of the material detonated.

The detonation briefly allowed air to enter, and the powdered hydride was spread throughout the glove box. Due to the unstable nature of the materials, specialized personnel were brought in at a cost of \$13,000 to decontaminate the glove box and render it safe for use.

Sodium aluminum hydride is corrosive, flammable, and water reactive. When combined with certain other materials, the combination can become shock sensitive.



Cleanup personnel in bomb suits discuss decontamination of glove box involved in explosion. (Photo courtesy of Michigan Tech University.)

New EH&S Website is Live

A major overhaul of our website has been completed! The next time you visit <http://ehs.memphis.edu>, we hope you will find the new site to be even more helpful than the old one. We also hope you will join us in saying “thanks” to Laura Kloc who spent many hours working on design and writing HTML code for the site.

Among additions to the site are new tabs for hazardous waste and MSDSs, with a direct link to the U of M MSDS collection. The old “Downloads” tab is now called “EH&S Forms” and includes forms and guidance documents that you routinely need.

Let us know what you think about the changes. Your comments will be helpful as we continue to improve the website.

Hexavalent Chromium, Anyone?

The U.S. Occupational Safety and Health Administration (OSHA) recently issued new regulations covering employees who are exposed to hexavalent chromium. Exposure can occur through such operations as welding (primarily stainless steel), woodworking (typically treated lumber), printing, and painting. If any work functions in your unit expose employees to hexavalent chromium, please take appropriate action. More information is available from OSHA’s “Small Entity Compliance Guide for the Hexavalent Chromium Standards” at http://www.osha.gov/Publications/OSHA_small_entity_comp.pdf.

Sources of Assistance

Director of EH&S 678-4672
Radiation Safety Officer 678-4672
Chemical Hygiene Officer 678-4672
Environmental Protection Specialist . . 678-2044
Laboratory Safety Specialist 678-2740
Fax 678-4673
Emergency (Fire, Police, Ambulance,
after hours Chemical/Radiological) . . 678-4357
EH&S Home Page <http://ehs.memphis.edu>

Mercury Inventories Continue to Shrink

We would like to thank the folks in Civil Engineering, Earth Sciences, Health and Sports Sciences, and Psychology who recently reduced the amount of mercury on campus by allowing us to replace newly-discovered mercury-containing devices with safer, environmentally friendly alternatives.

As noted in earlier issues of this newsletter, mercury continues to be one of our most commonly spilled chemicals. In addition to the health hazards associated with mercury vapors, disposal and clean-up costs are not going down. (Remember the 2004 mercury spill that accounted for almost 10% of the hazardous waste generation costs that year?) So, if you discover a mercury-containing device, give us a call - maybe we can replace it with a safer device at no cost to your department.

Radiation Safety Class Begins Soon

A radiation worker class will begin within the next two weeks. If you are planning to work with ionizing radiation in the near future and have not successfully completed this class, please contact Al Simpson at asimpson@memphis.edu to enroll.

Congratulations, Frank

Congratulations to Frank Williams who just retired from the U.S. Coast Guard Reserves after 20 years of service. In addition to his time in the Coast Guard Reserves, Frank spent four years in the Navy as a hospital corpsman. Frank has been with EH&S for seven years.

Forward those MSDSs

EH&S is the official repository for all University Material Safety Data Sheets (MSDSs). When we receive an MSDS, it is scanned into the Image-Wave system and your department is notified that the document is available at <http://chim.memphis.edu/msdsfind>. If you receive an MSDS directly from a vendor, please remember that it is your responsibility to forward the original MSDS to EH&S after making a copy for your files.



Commander Frank Williams

Green Chemical Alternatives

Massachusetts Institute of Technology (MIT) recently created the “Green Chemical Alternatives Purchasing Wizard” to help reduce hazardous waste generation and improve safety in laboratories. This tool is now available at <http://web.mit.edu/environment/academic/purchasing.html>.

Check out this tool, and look for alternatives to commonly used solvents and other chemicals. Maybe you can reduce hazards, costs, and waste volume by substituting a more benign chemical in your processes.

Are you minimizing the environmental impact of your lab, shop, or studio?

New Web Access for Chemical Inventory

For those of you in the Chemistry Department, we now have a web portal to your chemical inventory. This new tool should be a tremendous help for those times when you need a chemical in a hurry and want to see if anyone else in the building has it in inventory. Since the hazardous waste reduction plan requires all departments to check existing inventory prior to purchasing new chemicals, this will also be a wonderful tool to help you reduce waste.

Please contact Al Simpson at 4672 if you need access to the on-line chemical inventory.

Is your hazardous waste reduction plan up-to-date?

Students Injured Around Nation in Multiple Chemical Incidents

The Associated Press reported on October 4, 2006, that two graduate students at Northwestern University received non-life-threatening burns due to an explosion and fire. They were transported to a hospital by ambulance. The incident was said to have been caused by a chemical reaction in a campus laboratory.

In a separate incident reported on November 3, 2006, by the *Lexington Herald-Leader*, a University of Kentucky student received emergency medical treatment after an explosion. The student was apparently pouring nitric acid into a waste container in an engineering lab when the glass container exploded. The student received cuts and burns due to the incident.

Have you pre-planned what to do in case of fire, medical emergency, or other unexpected event?

Avian Influenza Preparations Continue

As the University continues to prepare for the possibility of an avian influenza pandemic, Dr. Raines has approved an “Avian Influenza Preparedness and Response Plan” that is available at <http://umdrive.memphis.edu/sraines/www/avian>. Dr. Raines has also appointed committees to assist with business continuity planning, communication and education, and related functions.

Please take time to read the preparedness plan and begin thinking about tasks that are critical for your department’s operations. You will soon be hearing more about formalizing preparations for a possible pandemic. And don’t forget to cover that cough or sneeze this cold and flu season.

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