



The Safety Chronicle

EHS Launches ImageWave

Vanessa Fowler

EHS recently acquired a new chemical inventory and Material Safety Data Sheet (MSDS) management software that is going to better enable the entire campus community to access safety information regarding the chemicals used and stored on campus. The ImageWave web-based interface allows anyone on a Duquesne computer to search for chemicals and view their MSDS.

The site can be accessed through the following address:

<http://msds/msdsfind/>

It's "chemical inventory" is populated with data from annual chemical inventories submitted by labs and Facilities Management. At this time, only MSDSs for those chemicals used by Facilities Management are available; MSDSs for lab chemicals will be available soon.

For more information on how to access and use the site, contact

Vanessa Fowler at x1506 for a Getting Started Guide.



Greening The Safety Chronicle

Vanessa Fowler

In an effort to increase our circulation and reduce our paper consumption- and all the environmental costs associated with a printed newsletter- *The Safety Chronicle* will now be available

exclusively in an electronic format.

It has always been the mission of this newsletter to provide relevant and timely safety information to the entire Duquesne community on a variety of topics. We strive to

inform and provide guidance on everything from lab safety to labor safety to safety in the home.

If you have any questions or topics you'd like to see us address, send us an email at

fowlerv@duq.edu

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*New Inside:
Report
updates
Formaldehyde
status!*

Home Sprinkler Update

Vanessa Fowler

In the first issue of *The Safety Chronicle* this year, we reported on “New Home Sprinkler Requirements,” in which all new one- and two-family homes must have automatic sprinkler systems installed. Since then, Pennsylvania’s House, Senate and Governor Tom Corbett have

signed a bill that would repeal this requirement, with one exception; new townhouse construction is still required to have a sprinkler system.

In an issue that has pitted the NFPA (National Fire Protection Association) and fire officials against the home-building

industry, there is no clear winner. Home builders will see an initial savings in construction costs, but home sprinkler advocates are adamant and “not done fighting.”¹

¹ NFPA Journal. May/June 2011. “Keystone State Showdown,” page 19.

Loysville, Pennsylvania

On March 8 of this year, the Clouse family home was completely destroyed in a late night fire, possibly started in a propane tank. Seven of the eight Clouse children perished in that fire. One 3-year old daughter escaped and ran to alert her mother, working in a nearby barn; the remaining children ranged in age from 7 months to 11 years. In the aftermath, through the support of their community, the Clouse family has rebuilt, their new home equipped with an automatic sprinkler system.

Pittsburgh Post Gazette: www.post-gazette.com/pg/11069/1130974-454.stm

Virginia

A 3 story apartment building, valued at \$600,000, sustained \$500 worth of damages after discarded cigarettes caught a trash can on fire on a first floor apartment’s balcony. The building was equipped with an automatic sprinkler system with coverage extending to balcony and patio areas with sidewall sprinklers. The fire was extinguished before firefighters arrived on the scene, there were no injuries and damage to the apartment’s contents was just \$50. According to the NFPA report: “The fire department credits residential sprinklers with extinguishing [the] fire...”²

² NFPA Journal. May/June 2011. “Firewatch: Sidewall sprinkler extinguishes apartment fire,” page 40.

Q: What triggers an Air Quality or Ozone Action Day?

A: Factors such as sunlight, heat and humidity are necessary for the formation of ground level ozone:

VOCs + NOx + Sunlight = Ozone

VOCs (such as those in fuels, paints and cleaners/degreasers) and NOX (nitrogen oxide gases, from combustion sources) in the presence of sunlight and heat result in ozone.

Q: How do I know its an Air Quality Action Day and what do I do?

A: Check out www.airnow.gov for the daily Air Quality Index and how to protect yourself.

**Air Quality Index
Levels of Health
Concern**

Good

Moderate

Unhealthy for
Sensitive Groups

Unhealthy

Very Unhealthy

Hazardous

Photo Credit: <http://www.starttours.com/tours/details/1093>

Lifting, Strains and Sprains, Oh My!

Vanessa Fowler

In a recent National Safety Council publication, the majority of the 3.5 million overexertion injuries incurred annually are cited as being caused by, “excessive lifting, lowering, pushing, pulling or carrying.”¹ While this number reflects workplace injuries, lifting and carrying have been known to occur off-the-job as well. So whether you work in Receiving, delivering packages, or in an office, moving boxes of files, or in the home, lifting the couch in search of a missing remote, overexertion injuries can affect anyone.

These injuries can result in such musculoskeletal disorders as sprains and strains— stretching or tearing to a ligament or tendon/muscle, respectively. And no one is exempt: young or old, male or female, everyone is susceptible once you overreach your limits.

Lifting, carrying and pushing are such common activities, it doesn’t always occur to workers that there may be a better and safer way to get the job done. The issue of overexertion can be attacked from three different angles: engineering, administrative and individual improvements.

Engineering improvements refer to what is used to get a job done.

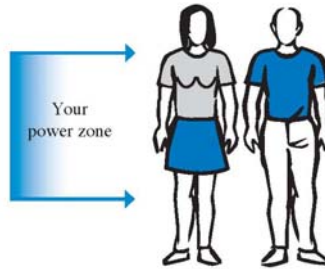
- Use mechanical lifts, scissor lift or forklift to raise items up and use a ladder to reach for items at an appropriate height— don’t reach outside your power zone!
- Use a cart or dolly for transporting.
- Avoid carrying heavy or bulky loads up stairs, stick to elevators and ramps.

Administrative improvements refer to how work is done.

- Optimize workflow to minimize lifting and transport.
- Carry fewer items or transfer bulk items into a smaller container.
- Rotate lifting work between individuals or within a schedule with non-lifting work.
- Seek out training on equipment and lift devices.

Individual improvements refer to the things the individual worker can do to protect him/herself.

- Lift and carry in your power zone, the area between the shoulders and knees, close to the body.
- Be aware of how stress and illness can affect both your ability to lift and judgement; when we are distracted or “under the weather,” bad choices can be made.
- Lift only what you are able to safely handle. If the load is too large, lighten it or ask for help.
- Avoid twisting or fast or jerky movements.



If you have a concern about overexertion injuries and safe lifting, carrying and pushing, there are several options for support. Talk to your supervisor or consult with EHS as to possible options. You can also submit a Safety Suggestion Form to the Labor Management Safety Committee, which meets monthly to address campus-wide safety concerns.

¹Safety + Health. June 2011. “Stop the Strain,” page 40. Photo Credit: [NIOSH Publication No. 2007-131](#).



Keep the load close to your body and lift by pushing up with your legs.



Lean the sack onto your kneeling leg.

Slide the sack up onto your kneeling leg.

Slide the sack onto the other leg while keeping the sack close to your body.

As you stand up, keep the sack close to your body.

Eye on PPE: Summer Attire

Paula Sweitzer

With the hot weather upon us, it is easy to forget about the importance of proper lab attire and your personal protective equipment. EHS, along with the EHS/Radiation Safety Committee, developed a PPE Policy in March 2004. This policy can be found on our [website](#) and covers not only PPE, but personal attire as well.

- **Lab Coats:** Appropriate lab coats that protect against possible hazards, such as splashes or spills, are required at all times while anyone in a research laboratory is working with **hazardous** chemicals.

Lab coats may be worn within all areas of each building, except designated eating areas. Lab coats must not be worn outside the building at any time.

- **Shoes:** High heels, sandals, open-toed shoes or slippers are not permitted in any science laboratory.



- **Safety Glasses:** Appropriate eye protection is required at all times while anyone in a research laboratory is working with **hazardous** chemicals.

While engaged in desk work, which is isolated or protected, safety glasses do not have to be worn.

- **Clothing:** Clothing that does not protect against possible laboratory hazards, such as shorts, cutoffs, and skirts above the knee are not permitted in any science laboratory. Loose clothing or long hair must be constrained while in the science laboratory.

Photo Credit: <http://www.publicdomainpictures.net/view-image.php?image=5299&picture=wooden-mannequin>

Mellon Hall Briefs

Paula Sweitzer

Mellon Hall Safety Meeting

The 10th Annual Mellon Hall Safety Meeting was held on Thursday, May 26th and we had the largest number in attendance to date. Each representative from the EHS department spoke during the meeting and covered the following topics: Building Occupancy Code, Nanotechnology, Accident Prevention, Weekly SAA inspections and our new MSDS management program (Imagewave). EHS is always interested in your thoughts, so let us know if you have any suggestions for further topics or presenters.

Paula Sweitzer speaking at the 2011 Mellon Hall Safety Meeting.



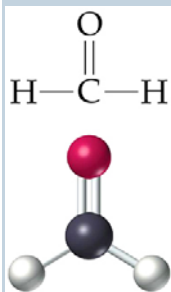
Chemical Disposal

As all of you know, hazardous waste collection takes place every Wednesday afternoon, in the basement of Mellon Hall. During this weekly waste collection, I will accept any chemicals you may wish to dispose of. This may include the generated lab waste, chemicals no longer needed (old/expired chemicals), and even unknowns. Once these chemicals are deemed “un-useful,” they should be treated as a hazardous waste (capped, labeled and in secondary containment). All chemical containers brought down as waste must be labeled with the hazardous waste label.

Formaldehyde: Report on Carcinogen Status

Known to be a Human Carcinogen

What is Formaldehyde?



Formaldehyde is a colorless, flammable, strong-smelling chemical widely used by industry to make home building products. It is a colorless gas at room temperature, or available as a liquid called formalin.

How are people exposed to formaldehyde?

People are exposed to formaldehyde in the workplace and in their home environment, but the highest levels are found in work settings where formaldehyde is used or produced. Exposure to formaldehyde can occur in numerous industries and professions, such as manufacturers of formaldehyde and formaldehyde-based resins, woodworking, and furniture making. Morticians and laboratory workers may also be exposed to formaldehyde.

The general population is exposed to formaldehyde by breathing contaminated indoor or outdoor air and from tobacco smoke. Automobile and other combustion sources, such as woodstoves, incinerators, refineries, forest fires, and fumes released from new construction or home-finishing products, are some of the major sources of airborne formaldehyde. Other consumer goods, including some hair smoothing and straightening products used in salons, cleaning agents, glues, and adhesives, may contain formaldehyde. Formaldehyde levels can be higher in indoor air than in outdoor air.

What evidence is there that formaldehyde causes cancer?

Human Studies. Studies of workers exposed to high levels of formaldehyde, such as industrial workers and embalmers, found that formaldehyde causes myeloid leukemia, and rare cancers including sinonasal and nasopharyngeal cancer.

Animal Studies. In laboratory animal studies, formaldehyde caused cancer primarily in the animal's nasal cavity.

How can I prevent exposure to this substance?

Use lower-emitting pressed wood products, such as those that are labeled CARB (California Air Resources Board) Phase 1 or Phase 2 compliant, or made with ULEF (ultra-low-emitting formaldehyde) or NAF (no-added formaldehyde) resins. Ask manufacturers about products.

Increase ventilation, particularly after bringing new sources of formaldehyde into the home. Open windows and use fans to bring in fresh air.

Use air conditioning and dehumidifiers to maintain moderate temperature and reduce humidity levels.

Employers who use formaldehyde in their workplaces must follow the requirements in the Occupational Safety and Health Administration standard on formaldehyde.

Adapted from The National Toxicology Program's Report on Carcinogens, Twelfth Edition.

[<http://ntp.niehs.nih.gov/go/roc12>]

Photo Credit: <http://www.etsy.com/listing/36333268/vintage-formaldehyde-bottle>



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Under “My Communities”



One More Thing...

Key Points About Formaldehyde

- *Known to be a human carcinogen.*
- *Chemical widely used to make building materials.*
- *Found in pressed wood products, cigarette smoke.*
- *Used as a preservative in labs and mortuaries.*
- *Previously listed as reasonably anticipated to be a human carcinogen.*

Upcoming Events and Reminders

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<i>July 2011</i>						
1st-30th: Annual Campus –Wide Fire Extinguisher Inspection				19th: Fisher Hall Hazard Walkthrough		
<i>August 2011</i>						
1st-31st: Lab Safety Training on Blackboard				16th: Law School Hazard Walkthrough		
<i>September 2011</i>						
1st-30th: Respiratory Protection Fit Testing		12th-16th: Fire Safety Week. Evacuation Drills & Floor Marshal Training!		20th: Vickroy LLC Hazard Walkthrough	22nd: EHS/Radiation Safety Committee Meeting	