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UNIVERSITY OF DELAWARE

Environmental Health & Safety

Safety BEACON

www.udel.edu/ehs
302-831-8475

ChemInventory Software

Improving laboratory safety one chemical at a time

University of Delaware Environmental Health and Safety (EHS) and the research community at UD have stepped up their commitment to laboratory safety with a new method to track, monitor and inventory all of the research chemicals on campus.

Anyone who has ever worked in a research lab with an inventory of chemicals may also know the frustration of searching Excel documents to locate a specific chemical or ordering a chemical without remembering first to look up the critical safety information.

Those days are now in the past, with new technology that enables users to look up materials by chemical structure or even functional group. In October 2017, EHS began the initiative to inventory all the research chemicals on campus, and to accomplish this task, it rolled out a new chemical inventory program, uniquely named ChemInventory. Since October, the implementation of the new program has been going strong; to date, it has helped more than 215 principal investigators.

How did the labs find time to input that many chemicals? Actually, they did not have to. To aid in this effort, with the support of UD's central administration, EHS has dedicated a team of chemical inventory specialists to do the hard work of inventorying and labeling with barcodes all the chemicals. The specialists work closely with each lab to understand any requirements before entering a laboratory space or sensitive area, and because there is no requirement for the lab members to participate in the initial inventory process, there is no downtime for the researchers.

ChemInventory has many features that will help labs function with less downtime, less money wasted on chemical purchases and improved chemical hazard recognition. Any UD department or laboratory interested in learning more about the program should contact the EHS office at dehsafety@udel.edu to schedule a demonstration. As the rollout continues through the University, EHS will be contacting labs directly for scheduling and time availability. Those who wish to add their department to the list sooner should contact the EHS office either by email or call 302-831-8475.

Fire Safety

The Value of Fire Doors Can't be Overstated

Fire door reliability to function at the time of a fire emergency can make the difference between life and death, and prevents the fire damage from extending from the room of fire origin to other previously unprotected spaces.

The most recent fires at UD shared one thing in common; the fire, smoke and heat were able to travel out of the room of origin and spread into other spaces. The cost of smoke and odor remediation was much higher, and the down time for recovery for re-occupancy extended. The occupants of these buildings can best speak to the inconvenience of being displaced until the building is restored for use. The status and condition of fire doors is handled by our Safety Committees, Building Managers and EHS Fire Inspectors during routine inspections. These inspections are modeled after requirements of the DE State Fire Prevention Regulation and with National Fire Protection Association (NFPA) Standards. Deficiencies receive priority status for repair when reported.

So where are fire doors located and what are the common deficiencies noted during fire door inspections, one may ask?

The following are examples of where fire doors are located:

- All stairwells on campus are considered as fire-rated enclosures, and have fire doors at all levels. These fire doors are critical to maintain areas of refuge integrity and are evaluated for panic hardware function, selfclosing and latching ability.

- Exit doors are critical for the safe egress of building occupants; especially for operational functionality and are included during fire door inspections.

- Fire walls for high-hazard spaces (utility rooms, labs, and shops), non-fire sprinkler protected building wall/partition openings, and residence hall rooms are all examples of spaces with fire doors.

The common deficiencies found during fire door inspections include the following:

- Obstructive operation due to damage, door chocks/wedges, and other modifications that prevent the door from closing.

Two examples of Fire Doors in a commercial building and an academic building.

For more information regarding fire doors, please contact EHS/Fire Safety Team at fire-safe@udel.edu

My house flooded!

What do I do now?

If you are a homeowner there is a good chance you will experience a flood in your home at some point. Whether large or small, a flood event can be extremely stressful and result in a loss if it's not addressed immediately.

Let's look at some of the different factors that affect a flood remediation:

Source of the flood
Floods are categorized by the source of the water. Water from a "clean" source such as a broken water supply line is considered Category 1 flooding. Materials impacted from this type of flood have a good chance of getting restored if the flood is addressed quickly. Water from a "clean" source does not carry a substantial risk of causing sickness or discomfort. However, flooding from a sewage backup is considered Category 3 flooding and can result in many non-porous materials having to be discarded due to the nature of the source water. Most carpeting, drywall, and furniture affected by a Category 3 flood will have to be thrown out.

Size of the flood
The size of the flood is another factor. Did your sink leak in your laundry room and result in 50 square feet of water pooling up on your concrete floor? Or did your hot water tank valve break, resulting in your entire basement being flooded?

Timing of flood
The time factor is very important in determining what materials can be restored or discarded. The key to preventing mold and other microbial growth is drying out all affected materials within 48 hours from the start of the flood. If you discover your house flooded while you were on a week-long vacation, chances are you will have to discard affected porous materials.

Remember: Safety is paramount during flood remediation. Other safety concerns such as electrical and slip and fall hazards have to be taken into account. Expensive commercial dehumidifiers and fans are often required to dry out a large flood, and specialized instruments are needed to map moisture.

It's beneficial to read your homeowner's insurance policy before a flood occurs and to contact your insurance company should a flood happen. Don't attempt to clean up a flood if you feel it's beyond your training or knowledge. The safety of you and your family is the most important factor in determining if you will attempt to remediate a flood.

It's a bird, It's a plane...

It's Bow Tie Brian!

The EHS Department at the University of Delaware will be rolling out a new program this fall called "Bow Tie Brian – Your Friendly Neighborhood Lab Safety Guy."

Brian J. Miani, the Assistant Chemical Hygiene Officer, will be walking through laboratory buildings answering any questions that you may have about EHS.

The goal of this program is to help lab users understand that EHS is a group committed to keeping them safe while they perform their research here at the University of Delaware. This program will serve to improve relationships with EHS, provide training, answer questions, and build a stronger bridge between EHS and the laboratory personnel on campus.

If you see Bow Tie Brian in your building, do not hesitate to say "hello," ask questions about EHS services, or just stop to chat about your research.

As always, think safety first!

Radiation Safety

UD offers Microwave Oven Monitoring Program

The Microwave Oven Monitoring Program is designed to offer the University community a free safety assessment of the microwave ovens in any University building or residence.

The assessment, performed by Environmental Health and Safety staff, consists of a test of the safety shut-off interlocks and a microwave leakage survey. Ovens that show damage to the door seal, door hinges or latch, or interior walls may leak microwaves at levels that exceed the safety performance standards set by the US Food and Drug Administration.

To schedule a microwave oven safety assessment, contact William Fendt at wfendt@udel.edu or by phone at 831-8475.

On-Campus Chemical Transfer Form

Transporting hazardous chemicals across campus

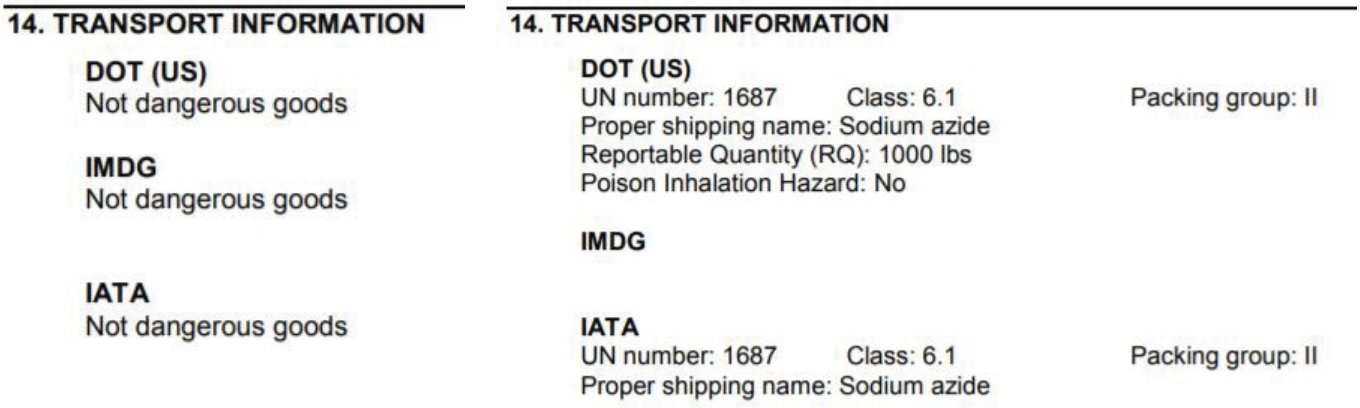
Recent Question: What is the safest way to transport a hazardous chemical across campus in my personal vehicle?

EHS Answer: There is no safe way to do so. The Department of Transportation (DOT) regulates the transport of all hazardous materials on public roadways (even on campus), and University policy prohibits the use of personal vehicles to transport hazardous and non-hazardous materials.

If there is a need to transport a hazardous chemical on or across public roadways, you MUST contact EHS by submitting an On-Campus Chemical Transfer Form (https://cas.nss.udel.edu/cas/login?service=https://udapps.nss.udel.edu/casforms/ehs/ehs-chemtransfer/index.jsp&renew=true).

The form must be used for chemical transport on public roadways, even when it's from north campus to south campus, one laboratory to another, from a chemical stockroom, etc. When completing the form, please include your contact information, type of chemical/quantity/size, pick-up location, and location for delivery. Please plan your requests and allow one week for EHS to process your submission and schedule the delivery. EHS vehicles have the required permits, and our staff has the necessary training to complete these moves safely as required by DOT.

Remember, all chemicals purchased from the chemical stockrooms or any chemical vendor may be considered a hazardous material. If you are unsure whether your chemical is classified as a hazardous material, take a moment to review Section 14 of the Safety Data Sheet (SDS); Figure 1 below, shows examples of from both non-regulated and regulated materials.



14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

14. TRANSPORT INFORMATION

DOT (US)
UN number: 1687 Class: 6.1 Packing group: II
Proper shipping name: Sodium azide
Reportable Quantity (RQ): 1000 lbs
Poison Inhalation Hazard: No

IMDG

IATA
UN number: 1687 Class: 6.1 Packing group: II
Proper shipping name: Sodium azide

Figure 1. SDS Section 14. (Left) Non-Regulated Material. (Right) DOT Regulated Material

All EHS transportation services are free to University of Delaware personnel.

If you have any further questions, please visit the EHS website at http://www1.udel.edu/ehs/research/chemical/hazmat-transport.html or contact Chris Niles (Environmental Health and Chemical Specialist) or Brian J. Miani (Assistant Chemical Hygiene Officer) at 302-831-8475.

ABSA INTERNATIONAL

OCTOBER 2018 Biosafety Month

Promoting a Culture of Biosafety and Responsibility

October 2018 has been designated as Biosafety Month by ABSA International. This is the 5th anniversary of Biosafety month, and the theme for this year is “Promoting a Culture of Biosafety and Responsibility” with the social networking hashtag #getyourcultureon. Biosafety Month was initiated by the NIH, but is now being held in conjunction with ABSA International.

Individuals and organizations are encouraged to focus on and reinforce their attention to biosafety and biosecurity standards. This includes promoting biosafety SOPs, updating biosafety training, and ensuring ethical and safe research is conducted. This is a chance for biological researchers to cultivate a culture of safety.

Take the opportunity this month to review your biological research projects, update your training, and reinforce biosafety procedures in your labs.

If you have any questions, or would like further information, please feel free to contact the biosafety staff in EHS at dehsafety@udel.edu

#getyourcultureon

Environmental Health and Safety would like to hear from you!

We encourage all members of the UD community to submit safety improvement ideas on campus.

You may submit ideas that impact your personal safety here on campus or the safety of the greater community.

Your participation will help raise safety awareness in our community!

Please submit your safety concerns/ideas via email to dehsafety@udel.edu