

# EHS Laboratory Safety Unit News



February 28, 2018

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**(Back Row)** Donna Douglass – Admin. Assistant, Sonia Rosenberger – Biological Safety Officer, Mary Jo Valenti – Technical Associate, Abby Davis —Technical Associate **(Front Row)** Gidion Beyene – Technical Associate, Carolyn Place – Laboratory Safety Supervisor

This dedicated team of professionals is here to meet the needs of all laboratory personnel. The Laboratory Safety Unit provides services for laboratory all chemical, biological, and physical hazards in all research and clinical laboratories here at the University of Rochester. Our efforts include not only identifying and mitigating risk, but ensuring adherence to all local, state, and federal regulations including OSHA, NIH, CDC, DFA, NFPA, CAP, DHS, etc. We strive to maintain that the laboratory is a safe and healthy place of employment. Please visit our website [Laboratory Safety Unit](#) for an abundance of useful information. If you are unable to find the needed information or need any assistance, please contact the Laboratory Safety Unit at 275-3241.

## New University of Rochester Employee Incident Reporting System

**GOOD NEWS!** Effective February 1, 2018, the new Employee Incident Reporting System is live!

### Using this system employees can report:

- Work-related employee injuries and illnesses
- Near-miss incidents/hazards (*An unplanned event that did not result in injury, illness, or damage - but had the potential to do so*)
- Request ergonomic assessments for computer workstations!

All events need to be documented within 24 hours of the occurrence. Upon submission of the report, Leave Administration, Environmental Health & Safety, and the employee's immediate supervisor will be notified via email. The employee reporting the incident will also receive an email acknowledgement that a report was submitted.

**If you are a University employee and have a NetID, please use this link and log in using the username and password that you use to access the HRMS system:**

University employee  
reporting

If you are unable to use the above link, please contact Environmental Health & Safety.

You can email the Laboratory Safety Group at [questions@safety.rochester.edu](mailto:questions@safety.rochester.edu)

WEBSITE: [WWW.SAFETY.ROCHESTER.EDU](http://WWW.SAFETY.ROCHESTER.EDU) MAIN PHONE: 275-3241 FAX: 274-0001

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## CHEMATIX NEWS:

### River Campus Chemical Inventory Reconciliation:

Labs, which have their chemical inventories in Chematix **MUST**, reconcile their inventory annually using the Chematix application. Reconciliation is the comparison of the Chematix inventory with the containers in the lab. You will need a barcode scanner and a procedure. EH&S has a few scanners that can be loaned for a week at a time. Request a scanner through [Questions@safety.rochester.edu](mailto:Questions@safety.rochester.edu) Detailed procedures for reconciliation are found at [http://www.safety.rochester.edu/labsafety/chematix/reconcile\\_inventory.html](http://www.safety.rochester.edu/labsafety/chematix/reconcile_inventory.html) Tips for Reconciliation:

- a. Scan the barcodes into a text-only file like Notepad and save on your computer. Then cut and paste into Chematix. This tip prevents loss of effort due to the browser or application timing out.
- b. Anyone who has access to the inventory can scan or (cut and paste) the barcodes into Chematix. However, only the Chematix Supervisor or Principal Investigator can resolve the inevitable discrepancies.
- c. EH&S Lab Safety staff can provide advice and personalized help, if needed.

### Purchasing Chemicals from the Stockrooms:

Chemicals purchased through the Chemistry and Biology Stockrooms must be added to chemical inventories by the lab purchasing the chemical. The stockroom staff do not provide this service (Exception – Chemistry stockroom staff inputs containers for the department of Chemistry). Instructions for adding chemicals to your Chematix inventory can be found at this web site (Adding an Item to your Inventory). <http://www.safety.rochester.edu/labsafety/chematix/instructions.html>

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## Laboratory Fume Hoods

A fume hood is designed to protect the user from exposure to certain chemicals that can cause serious injury or illness through inhalation or physical contact. It is sometimes difficult to tell whether or not the fan motor of a hood is operational. Without the fan, the fume hood system will not provide adequate protection. Prior to using a hood, verify that the hood is operating. If your hood is not equipped with an airflow monitor, a piece of surveyors tape, mounted on the bottom of the sash, will give an indication that the air movement is into the hood. Please contact the Laboratory Safety Unit if your fume hood does not have an airflow monitor.

EH&S requires that all chemical fume hoods be recertified annually. If the green fume hood sticker indicates that it need to be recertified, please call LSU at 275-3241. Facilities (x3-4567) should be notified immediately if a hood is not operational to facilitate the needed corrective actions. After repairs are made, EH&S should be called at x5-3241 to have the face velocities checked to verify the proper operation of the fume hood exhaust system.

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## GUIDELINES FOR EFFECTIVE HOOD USE

The basic use of hoods is similar regardless of the manufacture or model. In general, lab air enters the hood and mixes with the possible contaminants and the exhaust is discharged from the building. Personnel need to use caution to minimize the quantity of flammable materials used at one time to maintain vapors to less than the lower explosive value of the particular chemical. Operating electrical appliances in the hood with flammables have been known to result in an explosion.

Although the University Standard for airflow for fume hoods is 80-100 feet per minute of air into the hood, when the sash is at approximately 18 inches, personnel may have a false sense of protection. This airflow rate is only 1.1 miles per hour. Spillage of contaminated air from the fume hood can occur because of air disruption by personnel walking by the hood, quick arm movements in and out of the hood, and quick sash movements. Some general workplace guidelines to work safely with chemicals at a hood include:

1. Know the physical, chemical and toxicological properties of the chemicals with which you are working.
2. Use the light for proper illumination.
3. **Keep the hood clear and uncluttered.**
4. All work in a hood should be performed **at least 6 inches inside the hood.**
5. When large equipment is used, elevate the equipment approximately 2 inches off the base of the hood to allow air to flow under the object.
6. **Always lower the sash to the lowest possible position and use the sash as a shield. The sash should remain closed when the hood is not in use. Never use the fume hood with the sash above the working height as indicated by the green or orange sticker.**
7. Never place your head inside the hood.
8. Avoid rapid movement in front of the hood. Avoid drafts created by turbulence from air supplies within the laboratory or created by people moving in front of the hood. Never open a sash rapidly.
9. Fume hoods are not to be used for the disposal of materials. The cap of the waste bottle must seal the bottle immediately after pouring waste into it.
10. Never silence or disable the alarm. Call Facilities for immediate assistance if a fume hood is alarming at 273-4567.
11. Do not use perchloric acid in a standard fume hood. The properties of perchloric acid require a specially designed fume hood equipped with water spray wash down of the duct work and interior surfaces and a trough across the back of the hood for the collection and disposal of wash down water. Please call LSU if you plan to use perchloric acid at 275-3241.

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## Laboratory Fires

Two ethanol fires recently occurred in our research labs. Fortunately, no one was injured in these fires and only minor damage occurred. Both involved plating bacteria onto a petri dish using a metal spreader. The standard practice consisted of dipping the metal spreader into a container of ethanol, removing the spreader and placing it into an operating Bunsen burner to flame sterilize the spreader, and then using the sterilized spreader to transfer the bacteria onto the petri dish.

### What Happened?

In the first case, the Bunsen burner tipped over and ignited the open plastic container of ethanol. The individual ran to a neighboring lab for assistance. Someone else threw a lab coat over the flames.

In the second case, the uncovered ethanol container came in contact with the newly-flamed metal spreader and the then flaming container of ethanol tipped over. The flames ignited stacks of unused petri dishes and part of a wooden shelf. A lab member used a CO<sub>2</sub> fire extinguisher to put out the fire.

### Why did these incidents happen?

In both cases, several problems were noted:

1. Inappropriate containers were used for the ethanol. Rather than small plastic or glass beakers, a medium size glass bottle with a metal top should be used and the cover replaced between flaming's.
2. The Bunsen burner was too close to the flammable materials (i.e. The ethanol & the petri dishes). The Bunsen burner should be at least 12 inches away from all flammable items.
3. Lastly, the metal spreader should be allowed to cool before it is placed in or near the ethanol or when used for the bacterial transfers.



Whenever a fire occurs at the University, EH&S's Fire Safety Unit mandates employees follow **RACE**:

**R**escue or **R**elocate victims without exposing yourself to unnecessary risk

**A**ctivate the Fire Alarm system (pull station) and call Public Safety to provide further information from a safe location or cell phone - **dial x13 or 275-3333** – They will dispatch the Fire Department and notify EH&S

**C**onfine the fire by **C**losing doors and windows

**E**vacuate the building or **E**xtinguish the fire if you have had formal fire extinguisher training

Even though you may have put out the fire, the Fire Safety Unit and the Fire Department must ensure the fire has been resolved and the space is safe to reoccupy.

Is there something you would like to see in our next newsletter? Let us know at [questions@safety.rochester.edu](mailto:questions@safety.rochester.edu)

Look for our next Newsletter; Scheduled to be published in May 2018!

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