From:

Sent: Thursday, August 19, 2021 3:54 PM

To:

**Subject:** SAFELab Newsletter





# **SAFELab Newsletter**

(Safety Advisory Forum for Experimental Laboratories)

Summer Qtr 2021

## **Contents:**

UChicago Forward
Research Safety Training
Research Safety Updates
Chemical Safety Blog
Biological Safety Blog
Radiation/Laser Safety Blog
Quick Tips
Around Campus
External Events
Just for Fun
Related Links
Contact



#### **Educational Assignments and Visiting Researchers**

Please note that all in-person lab-related Educational Assignments for formal programming have resumed.

- Minors (<18) are not allowed at this time.
- Only 18 yrs and up.
- There are new guidelines for students registered at UChicago. Click here to view the new guidelines.
- Visiting Researchers doing professional work are allowed, please <u>complete the forms</u> to initiate the process.
- All visitors must comply with the COVID-19 visitor guidelines.
- Educational Assignments conducted remotely/virtually may continue.

Please submit the request forms available on our website. Contact the ORS Administrator with any questions.

#### **Visitors on Campus**

The UChicago GoForward website provides guidance related to visitors on campus. Please visit <a href="https://goforward.uchicago.edu/visitor-information/">https://goforward.uchicago.edu/visitor-information/</a> for more information.



Vendors must complete the <u>Vendor Access Form</u> prior to arriving.

For more information about current COVID-19 guidelines, please visit the UChicago Forward website.

#### **Upholding Public Health Requirements**

Use the <u>UCAIR online form</u> to anonymously report concerns about compliance with COVID-19 health requirements. UCAIR received 57 reports this week related to COVID-19 issues, for a total of 938 reports since September 20.



## **Research Safety Training**









To satisfy social distancing efforts, all training for the following are accessible online either via live Zoom training or a webinar. Click here to sign up.

- Radiation Safety
- Chemical Hygiene Plan (Lab Safety)
- Comprehensive Biosafety
- IATA Shipping Dangerous Goods

Please note, you do not need to have an EHSA account to take training, but when trying to access EHSA without an account, you will be rejected. Please contact the EHSA administrator to request access.

#### **Training Policy Update**

The <u>Institutional Biosafety Committee</u> (IBC) determined that the Biological Safety trainings (listed below) should be taken every 3-years instead of every 5-years. This decision was made to synchronize the frequency of training along with the renewal of IBC Protocols, which also occurs every 3-years.

- Bio-001 Biological Safety- Recombinant DNA at BSL1 (rDNA/BSL1)
- Bio-002 Biological Safety- Recombinant DNA at BSL2 (rDNA/BSL2)
- Bio-003 Viral Vectors
- Bio-005 Biological Toxin Training

This change in policy took effect beginning in Fiscal Year 22, on July 1, 2021. You can view your training history in Environmental Health & Safety Assistant (EHSA).

Please contact us at researchsafety@uchicago.edu with any questions.

#### IATA Shipping Dangerous Goods Training

The live training for the shipping of dangerous goods, including infectious specimens will occur on the following dates for the current quarter:

- 08/24/2021
- 09/21/2021

Registration can be accessed at <a href="mailto:ehsa.uchicago.edu/trainingregistration">ehsa.uchicago.edu/trainingregistration</a>. For further information or specific questions, please email the instructor Jay Schroeder - <a href="mailto:jayschroeder@uchicago.edu">jayschroeder@uchicago.edu</a>.

#### **HAZWOPER Certification**

(Hazardous Waste Operations and Emergency Response)

ORS offers a HAZWOPER Certification course specifically for work at UChicago. There are 2 courses available:

- 8-hour refresher for those who already have a certification (must show proof).
- 40-hour course for new trainees.

If anyone is interested in this course, please contact the ORS Administrator.

#### Training Module in Environmental Health & Safety Assistant (EHSA)

- To access online training modules: https://ehsa.uchicago.edu/training
- To register for live training sessions: https://ehsa.uchicago.edu/trainingregistration

Contact the EHSA Administrator for technical assistance.

# **Research Safety Updates**

#### **New Employee Announcement**



The Physical Sciences Division (*PSD*), with support from the Office of Research Safety, has hired a new Laboratory Safety Specialist. Please join us in welcoming Mr. Ian Hoppie to UChicago and ORS!

#### **Position Changes**

 The Pritzker School of Molecular Engineering (*PME*), with support from ORS, is recruiting candidates to fill a newly created Laboratory Safety Specialist position. For more information, or to apply, please visit the job posting: PME Laboratory Safety

Specialist: <a href="https://uchicago.wd5.myworkdayjobs.com/en-US/External/job/Hyde-Park-Campus/Laboratory-Safety-Specialist">https://uchicago.wd5.myworkdayjobs.com/en-US/External/job/Hyde-Park-Campus/Laboratory-Safety-Specialist</a> JR09625



- The Office of Research Safety would like to send a warm thank you and farewell to Health Physicist,
   Will Gibbons, who has accepted an offer from the Moffitt Cancer Center in Tampa, Florida to serve as the Radiation Safety Officer. Please join us in congratulating Will on his new opportunity.
- 3. Soon to post will be a position opening for an Associate Health Physicist in our Radiation Safety unit, contact the ORS Administrator if interested.

#### **Training Lab**

We are excitedly expanding our program! Members from the ORS team have been very busy preparing our very own laboratory space to use in the near future. The following activities are just a few examples of what we plan to do:



- Relevant location to conduct in-person or Zoom training
- Mock laboratory for training purposes
- One-on-one or small group demonstrations, such as BSC usage or spill clean-up, use of fume hood, hazardous waste handling, chemical storage, laser eyewear storage, decontamination of radioactive material, radiation survey meters, laser alignment, Class 3b and Class 3 laser safety, and more!
- Research for the purpose of streamlining biological safety practices
- Prepare training videos for lab-related activities that include: BSC usage, spill cleanup, PPE
  donning/doffing, proper use of fume hood, chemical segregation and storage, transferring solvents into
  a flask, laser alignment, how to use a survey meter, and more!

# **Chemical Safety Blog**



#### **Corrosive chemicals**

Pictograms on chemical labels and safety data sheets (SDS) are designed to quickly identify the hazards associated with a chemical. Today, the focus is on corrosive pictogram shown below:



The corrosive pictogram signifies that a chemical can damage and burn skin, eyes, metals, and other surfaces. Corrosive chemicals can be solids, liquids, and gas. Exposure to corrosives is dangerous. Skin and eyes can be burned by contact with corrosives in any form, and breathing corrosive gases can damage the respiratory system. Specific information on the hazards of a particular corrosive chemical is listed in the chemical label and in the SDS. The SDS will also give you information on what personal protective equipment (PPE) to use.

If you get a corrosive chemical in your eyes, immediately go to an eyewash station and flush your eyes with water for at least 15 minutes, then seek medical attention. If corrosives get on your skin, remove any clothing the corrosives contacted, and wash the area with water immediately.

#### **RAMP Up Continued:**

R = Recognize Hazards

A = Assess the Risks of Hazards

M = Minimize the Risks of Hazards

P = Prepare for Emergencies

In our last edition of Newsletter, we introduced "RAMP up for Safety." In this edition we will discuss:

R = Recognize Hazards.

**Safety Data Sheet (SDS)**, previously known as Material Safety Data Sheet (MSDS), is one of the primary resources for recognizing hazards.

- Researchers can identify hazard(s) on the labels of shipped chemical containers. In 2012 Occupational Safety and Health Administration (OSHA) revised standard hazard communication system.
- SDSs now follow the Globally Harmonized System (GHS) for hazard communication.
- According to GHS, the lower the categorization number, the greater the severity of the hazard.
- This is opposite to the way of numbers and severity relate to each other under NFPA. For example, with NFPA, the higher the number, the greater the severity.



With the GHS adoption, labels on chemical containers must include following six standard elements:

- 1. Product Identifier
- 2. Signal Word
- 3. Hazard Statement(s)
- 4. Supplier Information
- 5. Pictogram(s)
- 6. Precautionary Statement(s)



During this step of RAMP up, please make sure to identify both physical and health hazard(s) of the chemical/substance.

For more information on GHS, refer to <u>Hazard Communication - Overview | Occupational Safety and Health Administration (osha.gov)</u>

For more info go to ACS chemical and laboratory safety page (<a href="https://www.acs.org/content/acs/en/chemical-safety/basics.html">https://www.acs.org/content/acs/en/chemical-safety/basics.html</a>).

Next Chemical Safety TIP will be about **A = Assess the Risks of Hazards**, stay tuned!

# **Biological Safety Blog**



#### **AURA IBC**

In the next 2-3 months (release date has not been set), the AURA-IBC system will be upgraded to a new platform. There will be a new look to the system and some enhanced features.

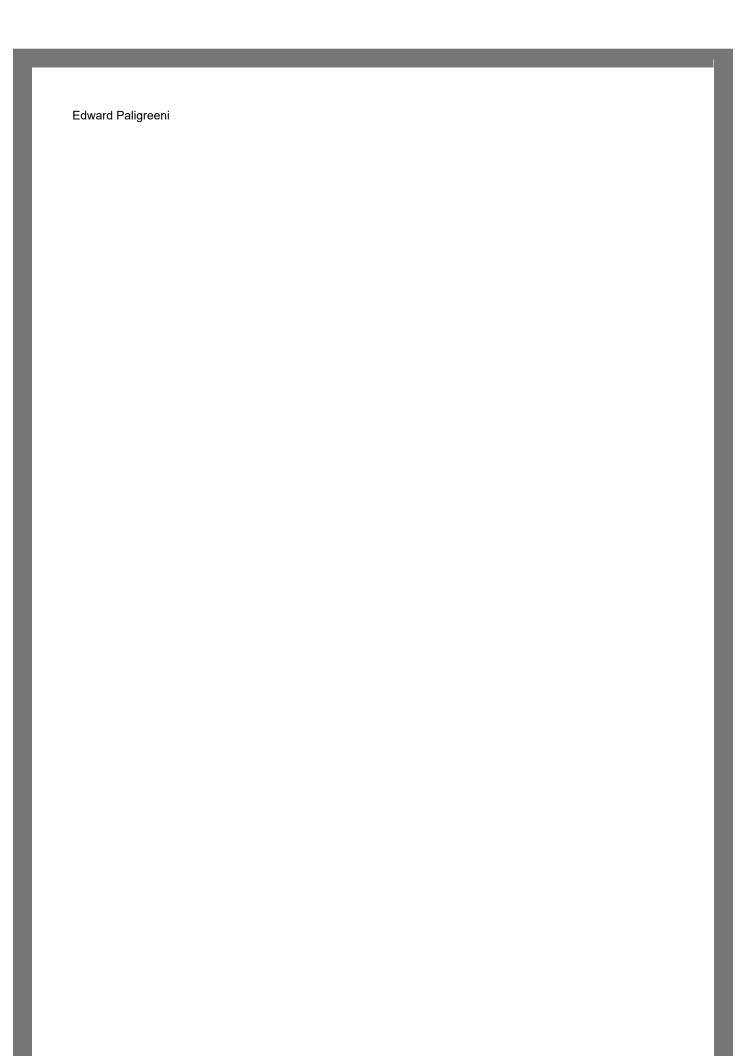
### **Biosafety Cabinet Certification**

For Biosafety Cabinet service or certification, please contact our preferred supplier LabMetrics, Inc.

Contract: 22148800

May 15, 2020 through May 14, 2023

Supplier Account Representative:		



#### edwardp@labmetricsinc.com

773-905-9750

LabMetrics, Inc. 13301 Southwest Highway Orland Park, IL 60462 Telephone: 866-572-5655

#### **Biosafety Cabinet Certification Services**

- Biosafety Cabinet Certification
- Laminar Flow Cabinet Certification
- · Hourly and After-Hours Repair Services
- Spare parts

http://www.labmetricsinc.com/

# Radiation Safety Presents: Laser Faire (Laser Safety Blog)





Laser NBH -

The radiation emitted from a laser can be dangerous, but it isn't the only hazard associated with these devices! Lasers are used all around us and are present in many everyday items such as printers, Blu-ray players, barcode scanners, and light show displays. We have all been told not to direct a laser beam towards a person or a highly reflective surface because many lasers can cause irreversible eye damage in a fraction of a second. Did you know that the laser radiation is not the only hazard associated with laser systems?

Fire hazards, laser-generated-airborne-contaminants (LGACs), electrocution, and compressed gasses some of the other hazards associated with many laser systems used here at the University of Chicago. These auxiliary hazards have the very clever name of, "Non-beam hazards." A fire is possible when high powered lasers irradiate

a combustible material, and the risk is even greater in oxygen-rich environments. When a laser beam is incident upon a material, depending on the energy deposited, different reactions can occur, and different target materials may result in the release of dangerous gases such as benzene from laser interactions with PVC. The internal components of a laser may present an electric shock hazard and exposures can occur anytime protective housing panels are removed such as during maintenance activities. There have even been documented fatalities due to electrocution from laser system components.

While lasers are useful for highlighting items in a presentation, or completing laboratory experiments, they also come with different levels of risk based on the class of the laser. At the University of Chicago, it is important all Class 3b and class 4 lasers are registered so that the laser safety team can perform a hazard analysis on the laser system and the laboratory set-up. These hazard analyses include looking for these non-beam hazards! It is important to stay aware, and if you notice something that doesn't seem quite right, don't be afraid to say something. If you have any questions or concerns about lasers and laser safety at the University, do not hesitate to reach out to us at lasersafety@uchicago.edu.

# **Quick Tips**

#### **Lessons Learned**

The Office of Research Safety drafted valuable lessons learned from actual incidents that occurred at the UChicago campus. Click here to view the full list.

Our newest lesson includes an incident that involved a Ti:Sapphire laser injury. Check it out here.



Do you have an accident or incident lessons learned to report? Contact us.

#### **Glass Waste Containers**

- -Line containers with plastic
- -Collection of Non-Biohazardous Broken Glass with <3% residual chemical waste
- -Non-contaminated broken glass, fragile glass items, Pasteur pipettes, slides and cover slips

#### **Floor**

12 x 12 x 27 in. (30 x 30 x 69 cm) Fisher Catalog No. 12-009-7A 6/case

or

Fisher Stockroom: GCIS W143

- -Any lab member should be able to lift/move the waste box, otherwise replace with a new waste container (even if it is not full)
- -For disposal, tape shut and label: "Caution Broken Glass"
- -For pickup on campus: call F.S. Work Center x4-1414 and for UC Medicine: call EVS/Performance Center x5-5537 or email

Linda.Young@uchicagomedicine.org

#### Special Tips:

- -Slides are dense; for slide collection, use the smallest (benchtop) box
- -Triple rinse and recycle chemical containers that are note acutely toxic

#### **Benchtop**

8 x 8 x 10 in. (20 x 20 x 25 cm) Fisher Catalog No. 12-009-7B 6/case



#### 120097AEA for 1 box



#### Intermediate

12 x 12 x 20 in. (30 x 30 x 51 cm) Fisher Catalog No. 17-988-448 6/case



#### **Cryo-Gloves**

Used when handling liquid nitrogen and dry ice. Autoclave gloves offer no protection to the user in the event of a liquid nitrogen spill. Autoclave gloves will become saturated with the spilled liquid nitrogen and can freeze the autoclave glove to the users hand.

# Available on BuySite from Fisher:

Blue Small: 11-394-





Tips for selecting the proper fit:

- -Cyro-Gloves should be loose enough to shake off, but not so large that you lose dexterity
- -Too tight a fit leads to thermal loss
- -Gloves are sized appropriately to take quick removal into account
- order your true size
- -If your length and width sizes do not match, order to your width size the cuff will cover any additional length needed

Blue Medium: 11-394-306 Blue Large: 11-394-307

Blue X-Large: 11-394-309

Pink Small: 19-230-



Pink Medium: 19-230-254

Pink Large: 19-230-255

Pink X-Large: 19-230-256

# **Around Campus**

#### **Joint Research Safety Initiative (JRSI)**

UChicago's student-led safety team

JRSI is currently recruiting interested students to join their team! Check them out here: https://jrsi.uchicago.edu/



Interested in joining JRSI? Please contact the ORS Administrator.

#### Which Safety Unit Do I Call?

Have a question or need help but are unsure who to contact? Visit the new "Who Does What?" page available on the Environmental Health and Safety's website (direct link also available on the ORS website) where you will find a comprehensive list of activities, definitions and who to contact.

There is a search function that will help make navigation easier. If you have any questions, please contact us at <a href="mailto:researchsafety@uchicago.edu">researchsafety@uchicago.edu</a>.

For emergencies, always contact campus police at 123 (campus phone), or 773-702-8181.

#### **Lab Orientation Checklist**

Labs onboarding new employees should use the "Research Lab Orientation Checklist" to ensure that they have a good idea of what the standards are for lab safety requirements. It lays out the general requirements, and gives an idea of what safety equipment should be pointed out to new hires.

Labs or programs with groups of new students should contact us to schedule an orientation.

Please reach out to us at <a href="mailto:researchsafety@uchicago.edu">researchsafety@uchicago.edu</a>

#### **Potential Sharps Container Shortages Guidance**

Some federal agencies are warning of a potential bio-sharps shortage during the vaccination drive period: <u>Strategies for Sharps</u> <u>Disposal Container Use During Supply Shortages | CDC</u>

The CDC provided this guidance document: <u>Strategies for Sharps</u> <u>Disposal Container Use during Supply Shortages For Managers</u> <u>and Purchase Agents (cdc.gov)</u>



#### **Hazardous Waste Pickup**

Campus laboratory hazardous waste pickups regularly occur on Thursday's. Medical Center research laboratory hazardous waste pickups occur on Wednesday's.

For campus locations, enter waste pick-ups through EH&S Assistant. If you need access to the EH&S Assistant, contact Environmental Health and Safety at <a href="mailto:safety@uchicago.edu">safety@uchicago.edu</a>.

For laboratories located in the Medical Center, contact the Environmental Health and Safety Medicine Office at 773.795.SAFE or safety.office@uchospitals.edu.

Thank you for your continued cooperation with ensuring safety at the University of Chicago. Please feel free to contact Environmental Health and Safety at <a href="mailto:safety@uchicago.edu">safety@uchicago.edu</a> or 773.702.9999 with any questions.

- Click here to learn more about Hazardous Waste handling.
- Click here to view the Hazardous Waste Disposal Flow Chart



#### Knock Knock... Who is in your Lab?

The Office of Research Safety needs your help to keep track of personnel working in your laboratory.

The <u>EHS Assistant</u> (EHSA) system is used to track who is working in a lab. To view the current roster in your lab, click on the **Worker Registration** icon. This section allows you to add new researchers and remove people who are no longer there. We only need to know about people who perform wet lab bench work or work with lasers - clinical staff, computational researchers, and office managers do not need to be added.

Click here to view the guide for adding and removing workers with step-by-step instructions.

Laboratories working with recombinant DNA, pathogens, or biological toxins are required to have an Institutional Biosafety Committee (IBC) protocol. All laboratory members working with such biohazards need to be added to the IBC protocol. These protocols are tracked in <u>AURA IBC</u>, not EHSA. In AURA, adding or removing people needs to be done by a **Personnel Funding Amendment**. While the Personnel Funding Amendment is processed very rapidly, please note:

- The PI must submit the amendment in AURA although other workers in the lab can edit the protocol, only the PI can click the submit button.
- After the amendment is approved, everyone added must log in to AURA, review the protocol, and acknowledge that they have been added.

If you have any questions about adding or removing people, please reach out to us at <a href="mailto:researchsafety@uchicago.edu">researchsafety@uchicago.edu</a>

#### **University of Chicago Accident and Incident Reporting (UCAIR)**



<u>UCAIR</u> provides a user-friendly mechanism for reporting work-related accidents and incidents to <u>EHS</u> and <u>ORS</u>. For more information about UCAIR, visit the <u>FAQs page</u>. We also encourage the reporting of unsafe conditions observed on campus.

Please remember to first call 123 (on-campus phone) or 773.702.8181 (off-campus phone) for accidents requiring emergency response to ensure the appropriate emergency response personnel are notified.

Involved individuals, supervisors, affected persons, or witnesses can submit reports. Anonymous reporting is available for events that do not require medical treatment.

#### Medical Payments for UChicago Student Injuries (MedPay)

#### What is covered?

Out-of-pocket costs incurred for emergency medical care for accidents or injuries sustained during assigned responsibilities while in laboratories or other research activity, regardless of fault.

#### Who is covered?

UChicago students injured during assigned responsibilities in laboratories or other research activity. Includes enrolled UChicago graduate and undergraduate degree students.

The program is set up for covering emergency care at UCMC and would not apply to non-degree visiting students or injuries that occur in field research. In these instances, students should utilize their health insurance. Additionally, students who are injured abroad can call International SOS for assistance.

Submitting a timely report of the injury via <u>UCAIR</u> will route resulting medical bills for payment by the Office of Risk Management. It is important that UChicago students identify themselves as UChicago students when submitting via <u>UCAIR</u>.

If a student receives bills for related treatment, they should contact the <u>Office of Risk Management</u> at <u>risk@uchicago.edu</u>.

Any additional questions or concerns should be directed to the Office of Risk Management.

# **External Events**

# **64th Annual Biosafety and Biosecurity Conference**

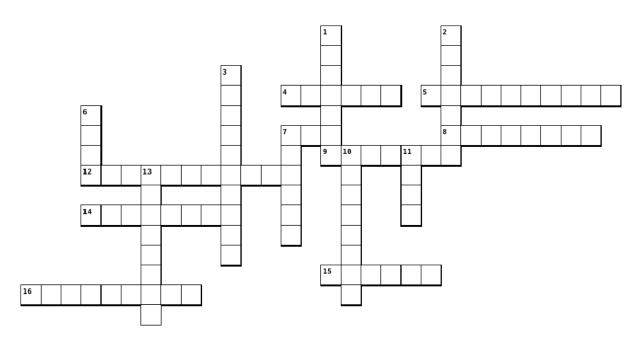
Raleigh Convention Center Raleigh, North Carolina



https://absaconference.org/

# **Just for Fun**

Laser Safety Crossword Puzzle (click for pdf)



#### Across

- 4. Inventor of the laser
- 5. The term for the rate the beam diameter increases with distance is the
- 7. What is the Safety "Speed Limit" for lasers?
- 8. For visible wavelengths, the \_\_\_\_\_ response will provide protection to low powered radiation in approximately 0.25 seconds
- 9. 400nm to 1400nm is known as the \_\_\_\_\_ hazard region
- 12. The O.D. provides a measure of the \_\_\_\_\_ of incident laser radiation
- 14. A reflection from a mirror-like surface is known as
- 15. According to university policy and state regulation, frequency of training required for laser users
- 16. The procedure where a majority of laser accidents occur

#### Down

- 1. Krista Dillingham is the University of Chicago Laser Safety \_\_\_\_
- 2. The NHZ describes the area that indirect or scattered laser radiation may exceed the MPE, the N stands for:
- 3. All Class 3b and Class 4 lasers must be \_\_\_\_\_ within 30 days of acquiring or relocating them
- 6. In Illinois, the state department that oversees laser safety is known by a four (4) letter acronym:
- 7. According to university policy and state regulation, laser safety eyewear must be inspected every six (6)
- 10. Who is responsible for safety?
- 11. Abbreviation for distance an unobstructed beam remains above the MPE along the axis of transmission?
- 13. Ideally, all laser systems would be \_\_\_\_\_, providing not only increased safety, but keeping out contaminants such as dust

#### **Answers**

Across:

4. Maiman

5. Divergence

7. MPE

8. Aversion

9. Retinal

12: Attenuation

14: Specular

15: Annual

16: Alignment

Down:

1. Officer

2. Nominal

3. Registered

6. IEMA

7. Months

10. Everyone

11. NOHD

13. Enclosed

# **Related Links**

Office of Research and National Laboratories

**Howard Taylor Ricketts Laboratory** 

**Environmental Health & Safety** 

Medical Center Environmental Health & Safety

Animal Resources Center

Institutional Care & Animal Use Committee

Institutional Biosafety Committee

**Marine Biological Laboratory** 

**Duke Infectious Disease Response Training** 

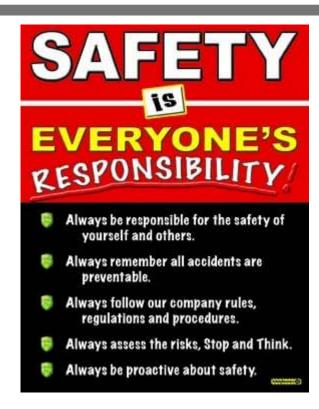
Joint Research Safety Initiative

# **Questions? Comments? Suggestions? Love?**



Does your department have any information to share in our newsletter? Would you like to see something specific? Contact the ORS Administrator

Learn more about the Office of Research Safety or our partners by visiting our website.





Follow on Twitter

Follow us on Facebook

To unsubscribe, please <u>click here</u> to send an email or visit <u>https://lists.uchicago.edu/web</u> to remove yourself form the Lab Safety ListServ. You must include your UChicago CNET or the email you used at UChicago. If your emails are forwarded to a Google or another account, please <u>update your settings</u>.

 $\textit{Copyright} © \textit{2021} \mid \textit{Office of Research Safety at the University of Chicago, All rights reserved.}$