

*DENTAL RESEARCH  
SAFETY  
COMMITTEE  
MEETING*

*March 20<sup>th</sup> 2019*

*Lab Safety  
Orientation /  
Exposure  
Control Plan  
Discussion*

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# Chemical Amnesty 2019



1

Please, Please,  
Please....prepare in  
advance for this  
event

2

This is a great time to  
go through old bench  
spaces, abandoned  
chemicals from  
previous researchers,  
peoples benches that  
contain legacy  
materials

3

Take a look in the  
back of your  
flammables and  
corrosives  
cabinets

4

Definitely follow  
my pink cap rule –  
take a look at your  
dry chemical  
storage

5

Call me over! Lets  
take a look  
through your  
chemicals!

6

Can get rid of  
any/all chemicals,  
solutions,  
unknowns within  
the lab without  
having to tag or  
submit requests

7

April  
29<sup>th</sup> -  
May 3<sup>rd</sup>

Everyone participating in the Amnesty will need to put red neon stickers on their items (EHS provides) and submit a registration spreadsheet 2 weeks before the event.

\*\*\*\*NOTE – The amnesty will not happen again for another 2 years

# Universal Waste Accumulation Area Signage

## Universal Waste Accumulation Area

Exposed terminals or metal parts of certain batteries can rub together creating a spark, overheating, and potentially ignite a fire. Properly taping these batteries ensures safe accumulation and transit. But most batteries do NOT need to be taped.


### Batteries That need to be Taped



Tape all lithium batteries with exposed terminals



Tape exposed terminals of all 9V batteries and over



Tape all lithium coin button batteries regardless their voltage

### Damaged Lithium Batteries

If damaged lithium batteries are to be recycled, contact EH&S 2-1720



### Most batteries do not need to be taped

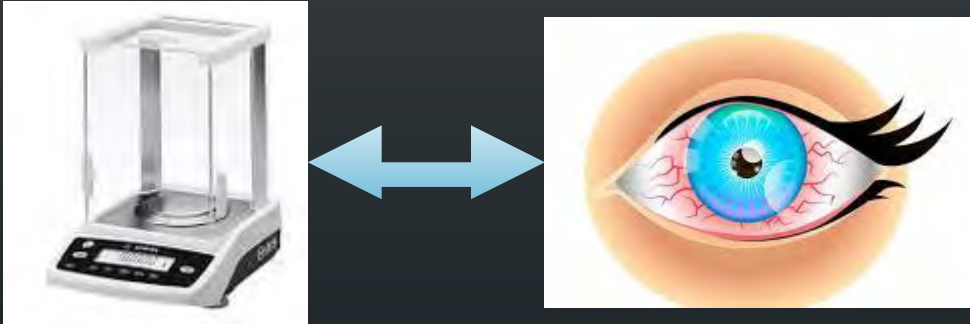


- Alkaline batteries with exposed terminals and less than 9V do not need to be taped
- Batteries with unexposed terminals and voltage greater than 9 volts—Don't need tape

If you need assistance, call HMS Call Center 617-432-1901



# *Incident*



- Chemical exposure while weighing out ammonium persulfate
  - Researcher's eyes felt irritated after performing the procedure
  - Researcher unsure of means of exposure
  - Electrostatic issues?
    - High degree of electrostatic issues experienced during weighing are believed to have led to the exposure

# *Researcher's Account*

*A description all too familiar to anyone who has done even a fair amount of weighing*

The goal was to weigh out 66mg of ammonium persulfate

- A few attempts were made using weighing paper but this proved difficult because the scale wouldn't tare. The read out was drifting and wouldn't stabilize. After this, attempts were then made using plastic weighing dishes instead of weigh paper. The compound could be seen spreading out on the surface of the plastic due to the electrostatic interaction.
- During this entire process the researcher indicated he changed out his gloves more than a couple of times. He also indicated having wiped down the table and inner scale surfaces. The researcher is confident that he never touched his eyes at any point during the procedure.
- Ocular discomfort was experienced soon after the procedure and the researcher sought medical treatment.





# *Polonium Containing Anti-Static Devices*

- Relies on alpha particles to remove static charge
- Limited useful life
  - $t_{1/2} = 138$  days
- Spent devices **CANNOT BE THROWN AWAY** and need to be returned to the manufacturer



# *Polonium Anti-Static Devices*



- You don't need a permit to possess/use these devices!
- Notify RSS when you purchase/receive these (or if you've got any) so that we can track it in our database
  - We are required by the state to know where radioactive material is on campus
- Let RSS know if the device is damaged or if you have any questions about radiation safety
- Notify RSS when you ship the device back to the manufacturer at the end of its life so that we can make sure it is removed from MA RCP database

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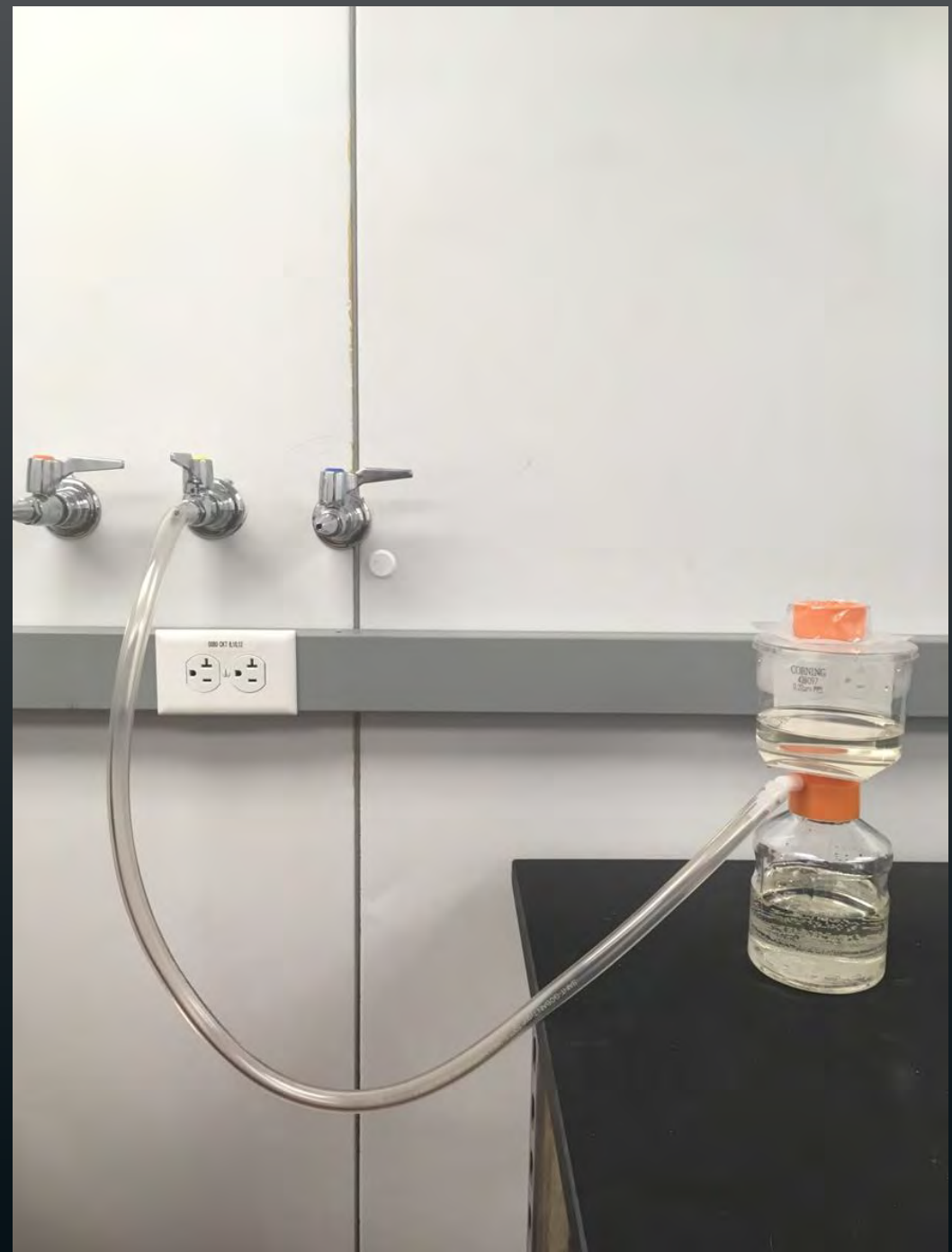
**RSS Contact - [Radiation\\_Safety@Harvard.edu](mailto:Radiation_Safety@Harvard.edu)**

# *In addition to the use of Anti-Static Devices...*



- Prior to Weighing
  - Wipe down the scale and surrounding area with a pre-moistened paper towel and allow surfaces to dry.
  - Have pre-moistened paper towels at the ready to clean up spills and wipe residue from scoopulas and other contaminated items.
  
- After Weighing
  - Be sure to wipe down the scale and the surrounding area with pre-moistened paper towels.

*What's  
wrong with  
this picture?*



# VWR Tip Box Recycling

- Being used currently in a Genetics lab
- \$200 for 5 boxes and this includes the shipping costs
- They turn them into park benches



*Where is the  
gel not  
supposed to  
go??*



# *Critters in the Lab*

- If you notice critters in your lab trash, biowaste, regular trash please contact 2-1901 or the facilities email to have them send EHS Pest to investigate

## **Why you need to know....**

Flies (or other critters) can mechanically acquire and transmit any nasties (biological, radiological, chemical)




## **What you can do....**

The best defense is to keep the lid down - on petri dishes and the like, biowaste containers, regular trash, etc. and to keep sink drains clean.

# Safety Committee Meeting Materials on our Website

https://www.ehs.harvard.edu/secure/programs/harvard-school-dental-medicine-safety-committee

HARVARD Campus Services

 **HARVARD**  
Environmental Health & Safety

Buildings & Facilities | Construction Support | Emergency Management | Laboratories | Find a Resource

EHS Home > Laboratories > Local Laboratory Safety Committees > Harvard School of Dental Medicine Safety Committee

Biological Laboratories Safety Committee  
CCB Safety Committee  
CFA Safety Committee  
Genetics  
**Harvard School of Dental Medicine Safety Committee**  
Microbiology and Immunology Safety Committee  
Neurobiology Committee  
Northwest Laboratories Safety Committee  
PEL Safety Committee  
SCRB Safety Committee  
SEAS Safety Committee  
T.H. Chan School of Public Health Safety Committee

**Harvard School of Dental Medicine Safety Committee**

Harvard's School of Dental Medicine's Safety Committee is chaired by Alicia Duprey, EH&S and Jim McBride, Research Operations Manager (ROM).

1867-2017  
**150**  
YEARS


Lab Safety Advisor	Email
Alicia Duprey	Alicia_duprey@harvard.edu

**Meeting Schedule**

Day	Location	Time
TBD	TBD	TBD

- January 2018 ( Laboratory Emergency Response Tabletop Exercises )
- June 2018 ( Biological contamination, Export Controls | Export control slide deck )
- September 2018 ( Select Toxins Review/Requirements, New Emergency Response Guides, Lab Safety Officer Information, Sodium Azide Disposal Restrictions, Chemical Shipping | September 2018 PDF )
- December 2018 ( Disinfectant Discussion, Green Labs Certification, Sink Disposal Guidelines | December 2018 PDF )

Documents

 [Lab Safety Officer Orientation Packet 2018-2019](#)

https://www.ehs.harvard.edu/secure/programs/harvard-school-dental-medicine-safety-committee





# ***LABORATORY EMERGENCY RESPONSE EXERCISES***

*Includes biological, chemical, medical and fire  
related interactive Emergency Response Exercises*

# *Scenario 1:*

Location: Laboratory Common Area

Time: 9:55am

A researcher is setting up an experiment and goes to the acids cabinet to retrieve a bottle of hydrochloric acid. When the researcher opens the cabinet they notice a white vapor/mist and a repellent odor.

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# What are the Hazards?

How do you determine if you have had an exposure?

How do you protect yourself from further exposure?

Where to go if you believe you have been exposed?

What can you do about the mist/vapor/smell?

Do you reopen the cabinet to inspect?

Who do you call?



What do you say?

What's expected of your group after you call for assistance?

What potentially went wrong?

Reporting requirements?



## *Scenario 2:*

Location: Laboratory

Time: 7:00pm

A researcher is working in the fume hood when 250mL container of glutaraldehyde slips out of the researchers hand and shatters on the fume hood surface.

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# What are the Hazards?

How do you determine if you have had an exposure?

How do you protect yourself from further exposure?

Where to go if you believe you have been exposed?



Can you clean up this spill?

How would you clean up this spill?

Would you call someone?



What would you say?

What's expected of your group after you call for assistance?

Reporting requirements?

