

Check Your Phenol Safety Kits

If your lab uses phenol or phenol-containing products (e.g., Trizol or QIAzol), please take a few moments to ensure you have a PEG treatment kit and [phenol poster](#) clearly displayed where the phenol is used. The poster should include the location of the PEG kit in your lab.

The PEG kits should contain polyethylene glycol 300 or 400 and gauze.

Please note: A small number of labs may have kits containing propylene glycol. While propylene glycol may be a suitable solvent for swabbing phenol burns ([Pardoe et al., 1976](#)), polyethylene glycol is the most efficacious option. Please check your PEG kits and if your kit contains propylene glycol (pictured at right) or you do not have a kit or poster, please contact ehs@yale.edu immediately.



PHENOL	
Component in Trizol and QIAzol	Odor: sweet, tar-like
HAZARDS TOXIC if inhaled, ingested, or absorbed through skin CAN BE READILY ABSORBED THROUGH SKIN CORROSIVE - CAUSES SEVERE SKIN BURNS & SEVERE EYE DAMAGE ANESTHETIC EFFECT – burn may not be immediately noticeable due to numbness	SAFE HANDLING NEVER WORK ALONE ALWAYS USE A FUME HOOD PPE: wear safety glasses or chemical splash goggles, lab coat and double nitrile gloves. A faceshield & utility grade glove may be necessary for some tasks.
Emergency Response RAPID AND IMMEDIATE SKIN & EYE DECONTAMINATION IS CRITICAL ALWAYS SEEK MEDICAL ATTENTION IMMEDIATELY AFTER AN EXPOSURE	
SKIN EXPOSURE <ul style="list-style-type: none">Remove contaminated clothingSwab area repeatedly with PEG 300/400, changing out with fresh swabs frequentlyContinue PEG swabbing until EMS arrives or odor is no longer detectableUse emergency shower for 15 minutes if no PEG is available	EYE EXPOSURE <ul style="list-style-type: none">Immediately flush eyes in emergency eyewash for 15 minutes MEDICAL ATTENTION: <ul style="list-style-type: none">For significant exposures - contact 911 immediatelyAll other exposures - follow up at YNH emergency room after PEG treatment or emergency shower
PEG Treatment Kit Location:	
Contact EHS Emergency Line (203-785-3555) for all large spills or those outside a fume hood	
Yale Environmental Health & Safety 	

Minors and Visiting Undergraduates Participating in Research or Clinical Activities

If you plan to have a minor or visiting undergraduate participate in research or clinical activities, please complete the appropriate application through [EHS Integrator](#).

Applications must be submitted and authorized prior to the student's participation in any research or clinical activities. Applications will not be authorized until all training and laboratory compliance issues have been completed.

The application process includes an integration with the Sponsored Identity system. You will enter the student's demographic information in EHS Integrator and your business office will approve the SI request in Sponsored Identity.

As principal investigator, you have responsibility for activities of staff and students in your lab or workspace. It is critical that you review and are in agreement with the information provided in the EHS registration. You will receive an automated email with instructions for approving the EHS registration.

Instructional help guides and a list of Frequently Asked Questions have been revised to help you with the application process:

- [Help Guide- Minors](#)
- [Help Guide- Visiting Undergraduates](#)
- [Frequently Asked Questions](#)

University policies:

- [Minors Participating in Research or Clinical Activities Policy](#)
- [Visiting Undergraduates Participating in Research or Clinical Activities Policy](#)

For assistance with completing or gaining access to the online application or if you have any questions or concerns regarding minors and visiting undergraduates, please email ehsintegrator@yale.edu or call 203-737-2122.

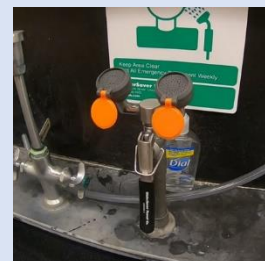
Lessons Learned: Emergency Shower Use

A researcher was performing minimal risk microbiological work in a cold room. A colleague asked the researcher to make up some new buffer of Trichloroacetic acid (TCA). The researcher was wearing pants, a t-shirt and a pair of gloves as they were only streaking petri dishes with non-hazardous microbes. The researcher stopped what they were doing and made two liters of TCA buffer, but it dropped when transferring to another bench, spilling on their shirt and pants. The researcher immediately grabbed paper towels and tried to dry off the TCA from their clothing. Shortly afterwards, they reported a burning sensation and called out for help. Fellow researchers called 911 and began wetting paper towels to wipe the chemical off the contaminated clothing. The fire department responded about 25 minutes after the initial incident occurred and asked if the researcher had taken an emergency chemical shower. They had not. Fire department personnel immediately moved the researcher to the emergency shower and turned it on. After two minutes, fire department personnel carefully removed all of the researcher's clothing. Significant burns were evident around their waist and ankles, where the TCA pooled during the initial spill and was allowed to have prolonged contact with their skin. The researcher spent multiple days in a burn unit to address the chemical burns from this incident.

NEW: Emergency Eyewash Videos

Yale EHS has created a series of instructional videos on how to properly use different types of emergency eyewashes.

Visit <https://ehs.yale.edu/emergency-eyewash-videos> to find the eyewash video applicable to your lab.



Lessons Learned

- Most institutions have a standard personal protective equipment policy that requires safety glasses, gloves, and a lab coat while working in the lab. A t-shirt and gloves are not sufficient.
- When asked to change procedures, take time to assess the risk of the new hazards. Going from non-hazardous microbes to concentrated acids requires a safety review and additional personal protective equipment. The Safety Data Sheet for TCA should have been consulted.
- Being aware of emergency response protocols in the event of an exposure is critical. The researcher should have known where the eye wash and emergency shower were located and how to use them.
- 911 or the designated emergency number (203-785-5555 or 203-785-3555 at Yale) should be immediately called in significant exposure situations.
- Researchers should default to utilizing the shower in significant chemical exposures like the one noted in this case.
- Because the chemical will continue to expose the researcher with skin contact even in the shower, researchers should also remove any contaminated clothing once fully wet with water.



Spotlight on Good Laboratory Safety Practices

A researcher experienced a high-risk puncture exposure to human blood or other potentially infectious materials. They immediately washed the exposed area with soap and water for 15 minutes. After washing, they texted their principal Investigator and lab manager to report the event.

They called Yale EHS to report the incident. Yale EHS checked to make sure they washed, notified their own lab leaders, and instructed them to call the Employee Health or Acute Care phone numbers. The EHS responder also called the Employee Health nurse's station to alert them of the incoming call and need for post-exposure response assistance. The researcher was provided with an appointment 45 minutes after the incident occurred. They were evaluated and provided with post-exposure prophylaxis, which was started immediately.