UNIVERSITY HEALTHCARE ALLIANCE

GENERAL ENVIRONMENTAL SAFETY TRAINING

rev 02.15.18

Welcome to the UHA **General Environmental Safety** Training. Here, we'll review these basic safety guidelines:

- Fire Safety
- Electrical Safety
- Hazardous Chemical Safety
- Radiation Safety
- Environment Safety
- Back Safety

Completing this course ensures that you are up-to-date on all topics. Please allow 20 minutes to read through the course.

Where do fires most commonly occur?

- Smoking in unauthorized areas
- Frayed cords/wires, improper use of electrical outlets or damaged electrical equipment
- Fires are frequent in areas such as kitchens and laundry facilities
- Fires can spread fast in areas where oxygen is in use or stored

Know the location of the closest fire extinguisher, the nearest pull-box and emergency exits.
If you don't know where to find any of these items, please contact your supervisor immediately!

Don't block fire extinguisher or pull box locations.
Poorly placed furniture, chairs, boxes or other items can easily block access. We need to be able to access extinguishers and pull-boxes without any delay!

Keep doorways and hallways free of any obstacles.
Take a moment to look through your work area and remove any obstacles and make a plan to remove obstacles every day.

FIRE SAFETY GUIDELINES:

What You Should Know

Do you know where your closest fire extinguisher and pull-box are located?

If you don't know, please consider scanning your work area for both items *before* you continue this course. if necessary, ask someone to help you to find the extinguisher and pull-box nearest to your work area.

So, how do you respond when you discover a fire? There a just a four key steps, but to help you remember the steps – use the word **RACE.** Each letter of the word **RACE** represents a separate action which we call the RACE Protocol.

When you discover a fire or smoke, follow each of the steps below:

R **RESCUE**. Take whatever steps are necessary to rescue people from immediate danger...as quickly as possible.

A **ALARM**. Immediately use the pull box, alert others, and get help by calling 9-1-1.

C **CONTAIN**. Close all doors. Stop anyone from entering the fire area.

E **EXTINGUISH**. For *small fires* only, grab the nearest fire extinguisher. If the fire is too big, evacuate the area and get help.

So, how do you use a fire extinguisher to put out a small fire?
Like the RACE Protocol, there are just a four key steps. This time, we'll use the word **PASS** to help us remember. Each letter of the word **PASS** represents a separate action which we call the PASS Method.

After you remove the fire extinguisher from the bracket or housing:

P **PULL**. Pull the pin.

A **AIM**. Aim for the *base* of the fire.

S **SQUEEZE**. Squeeze the trigger in five second bursts.

S **SWEEP**. Sweep from side-to-side to put out the fire.

You probably already know that most of our equipment, both in the office and in our clinics, is electric.

That means that we are at risk for electric shock. Electric shock can result in personal injury including burns, muscular issues, heart attack or even death.

Simply stated, electric shock happens when electricity flows through a part of the body.

Take time to check the equipment in your area. Look for damaged electric cords and water/liquids near electrical devices. Check to make sure that personal appliances such as coffee makers or fans are not left on overnight.

Make sure wall outlets and cords are in good condition. Always pull cords from an outlet by the plug, not the cord. Don't "daisy chain" surge protectors or outlet strips.

Keep floors and work surfaces dry at all times. A wet floor or surface near, or under, electrical equipment puts you and others at risk for electrocution. Keep liquids, including drinks, away from electric devices, outlets and surge protectors.

ELECTRICAL SAFETY GUIDELINES:

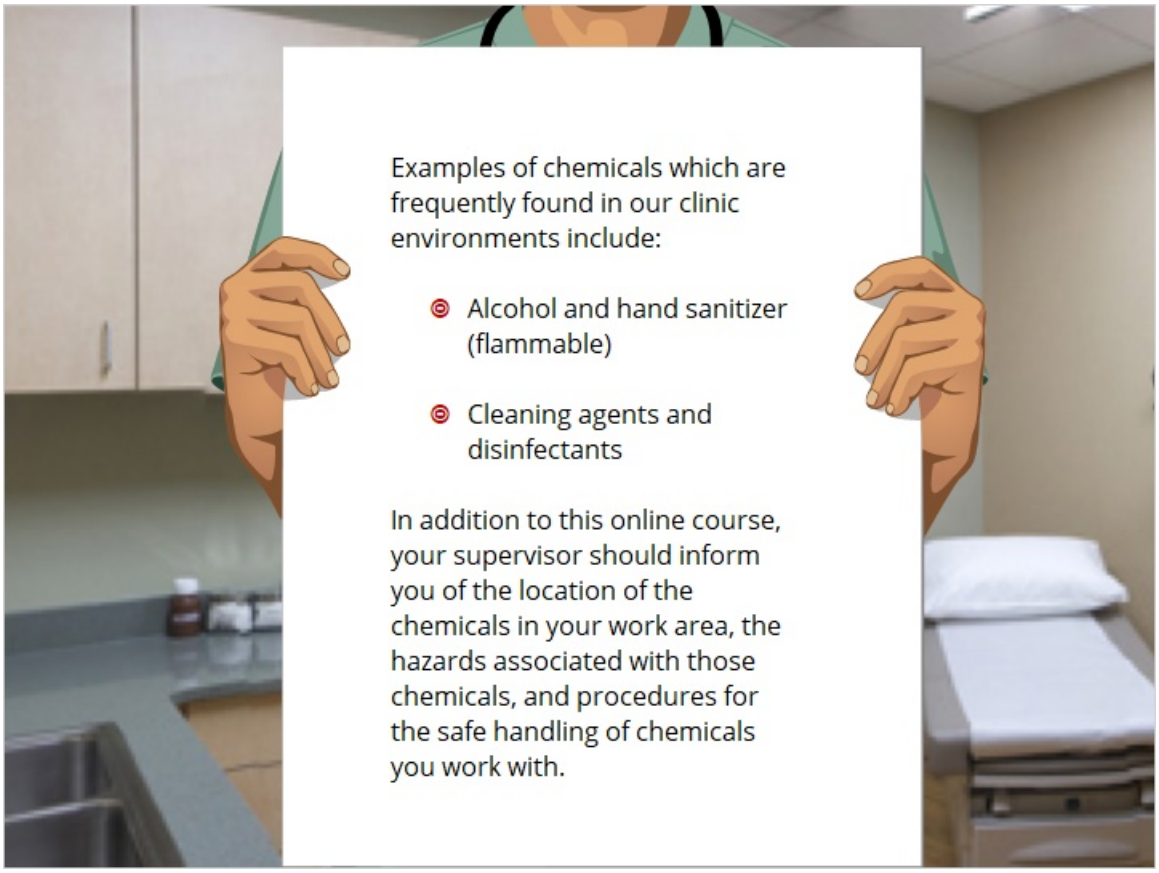
To help stay safe around electrical equipment, check out the preventative guidelines above.

Patient safety is one of our key clinical goals. Here are some guidelines for keeping our patients (and you) safe while working with or around electrical equipment:

- **Keep electrical equipment, wires and cords away from patients and visitors.** To protect from electrical shock or injury, it's important to keep electrical equipment away from patients, visitors and family members. Electrical outlets or wiring **must** not be "exposed".
- **Avoid the risk of electrical shock.** Don't touch a patient and electrical equipment at the same time. This will eliminate the risk of electrical shock for both you and the patient.
- **Use wall outlets, not surge protectors.** For all patient equipment.

California OSHA (**Occupational Safety and Health Administration**) has developed the Hazard Communication Standard (**HazCom**) to ensure the safety of people who work with hazardous materials. HazCom requires the following safety standards:

- **Hazardous chemicals**, in the work area, are identified in a chemical inventory (so that we know where they are at all times)
- **All chemicals must be labeled** to identify hazards
- **Safety Data Sheets** (**SDS**), with safety details and handling instructions, must be available for all chemicals


Examples of chemicals which are frequently found in our clinic environments include:
Alcohol and hand sanitizer (flammable)
Cleaning agents and disinfectants
In addition to this online course, your supervisor should inform you of the location of the chemicals in your work area, the hazards associated with those chemicals, and procedures for the safe handling of chemicals you work with.

NOTE!

CAL-OSHA **defines** a hazardous material as *any* substance which may result in adverse affects on life, environment, or property.

As you probably know, many chemicals, when not used or handled properly, can cause injury.

Knowing how to work with, or around, chemicals will help you to stay safe. Some chemicals can cause a physical hazard. These types of chemicals often explode or start fires, causing physical harm to anyone present during the hazard. *An example is Isopropyl Alcohol which is highly flammable.*

Chemicals may damage your health. This can happen when chemicals are exposed to your eyes or skin. Additional health risks can result if you inhale these chemicals or, by accident, eat or drink them. *An example is Formalin (a cancer causing agent).*

Hazardous chemicals come in *three* forms:

- **Solids** (such as Asbestos):
  While solids are not usually hazardous, the dust, fumes or fibers of these chemicals can be dangerous, depending on the chemical.

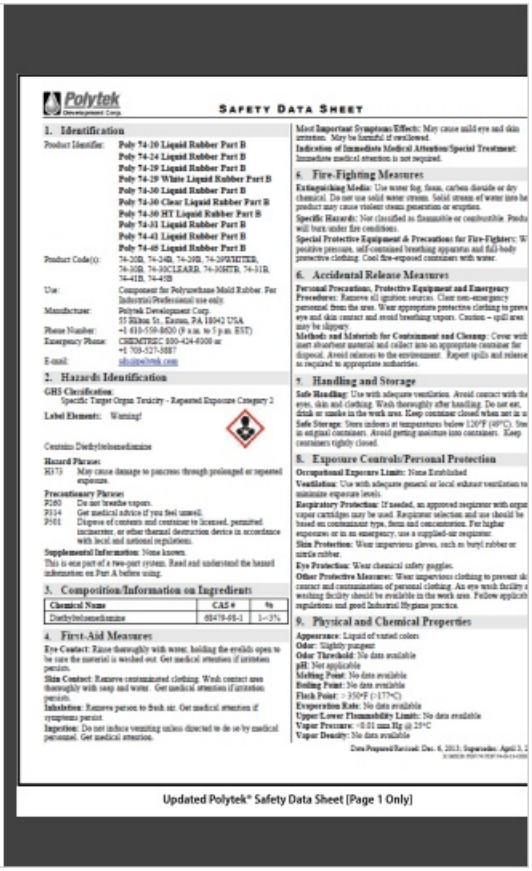
- **Liquids** (such as Formalin):
  Liquids are some of the more dangerous hazardous chemicals.

- **Gases** (such as Oxygen):
  Most gases are flammable and explosive (think Oxygen tank) and, in some cases, toxic. Special care is required to handle and store gases.

Do you remember hearing or seeing the acronym MSDS? In the past, we used an MSDS (Material Safety Data Sheet) as a reference for handling the chemicals in our clinics or administrative areas – as dictated by OSHA.

However, OSHA realized that a *simpler*, more direct approach to Hazard Communications was necessary so, in 2015, OSHA introduced the *Globally Harmonized System of Classification and Labeling of Chemicals* program, or GHS for short. This is when the **SDS** (**Safety Data Sheet**) was introduced – see the example on the right.

The SDS contains important details about handling, storing and using a hazardous chemical. The SDS is *simplified* and includes sixteen standardized sections to help you easily identify important information – and learn how to handle, store and use the chemicals found in our work areas at UHA.



Polytek Development Corp.

SAFETY DATA SHEET

1. Identification

Product Identifier: **Poly 74-10 Liquid Rubber Part B**, **Poly 74-24 Liquid Rubber Part B**, **Poly 74-19 Liquid Rubber Part B**, **Poly 74-19 White Liquid Rubber Part B**, **Poly 74-30 Liquid Rubber Part B**, **Poly 74-30 Clear Liquid Rubber Part B**, **Poly 74-30 HT Liquid Rubber Part B**, **Poly 74-31 Liquid Rubber Part B**, **Poly 74-41 Liquid Rubber Part B**, **Poly 74-45 Liquid Rubber Part B**

Product Code(s): 74-20B, 74-24B, 74-29B, 74-29WHITER, 74-30B, 74-30CLEARB, 74-30HTB, 74-31B, 74-41B, 74-45B

Use: Component for Polyurethane Mold Rubber. For Industrial/Professional use only.

Manufacturer: Polytek Development Corp. 55 Rikon St. Easton, PA 18042 USA

Phone Number: +1 610-559-8620 (9 a.m. to 5 p.m. EST)

Emergency Phone: CHEMTREC: 800-424-9300 or +1 703-527-3887

E-mail: sds@polytek.com

2. Hazards Identification

GHS Classification: Specific Target Organ Toxicity - Repeated Exposure Category 2

Label Elements: Warning!

Contains Diethyltoluenediamine

Hazard Phrases:
H373 May cause damage to pancreas through prolonged or repeated exposure.

Precautionary Phrases:
P260 Do not breathe vapors.
P314 Get medical advice if you feel unwell.
P501 Dispose of contents and container to licensed, permitted incinerator, or other thermal destruction device in accordance with local and national regulations.

Supplemental Information: None known.
This is one part of a two-part system. Read and understand the hazard information on Part A before using.

3. Composition/Information on Ingredients

Chemical Name	CAS #	%
Diethyltoluenediamine	68479-98-1	1–3%

4. First-Aid Measures

Eye Contact: Rinse thoroughly with water, holding the eyelids open to be sure the material is washed out. Get medical attention if irritation persists.

Skin Contact: Remove contaminated clothing. Wash contact area thoroughly with soap and water. Get medical attention if irritation persists.

Inhalation: Remove person to fresh air. Get medical attention if symptoms persist.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

Most Important Symptoms/Effects: May cause mild eye and skin irritation. May be harmful if swallowed.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention is not required.

5. Fire-Fighting Measures

Extinguishing Media: Use water fog, foam, carbon dioxide or dry chemical. Do not use solid water stream. Solid stream of water into hot product may cause violent steam generation or eruption.

Specific Hazards: Not classified as flammable or combustible. Product will burn under fire conditions.

Special Protective Equipment & Precaution for Fire-Fighters: Wear positive pressure, self-contained breathing apparatus and full-body protective clothing. Cool fire-exposed containers with water.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Remove all ignition sources. Clear non-emergency personnel from the area. Wear appropriate protective clothing to prevent eye and skin contact and avoid breathing vapors. Caution – spill area may be slippery.

Methods and Materials for Containment and Cleanup: Cover with inert absorbent material and collect into an appropriate container for disposal. Avoid releases to the environment. Report spills and releases as required to appropriate authorities.

7. Handling and Storage

Safe Handling: Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep container closed when not in use.

Safe Storage: Store indoors at temperatures below 120°F (49°C). Store in original containers. Avoid getting moisture into containers. Keep containers tightly closed.

8. Exposure Controls/Personal Protection

Occupational Exposure Limit: None Established

Ventilation: Use with adequate general or local exhaust ventilation to minimize exposure levels.

Respiratory Protection: If needed, an approved respirator with organic vapor cartridges may be used. Respirator selection and use should be based on contaminant type, form and concentration. For higher exposures or in an emergency, use a supplied-air respirator.

Skin Protection: Wear impervious gloves, such as butyl rubber or nitrile rubber.

Eye Protection: Wear chemical safety goggles.

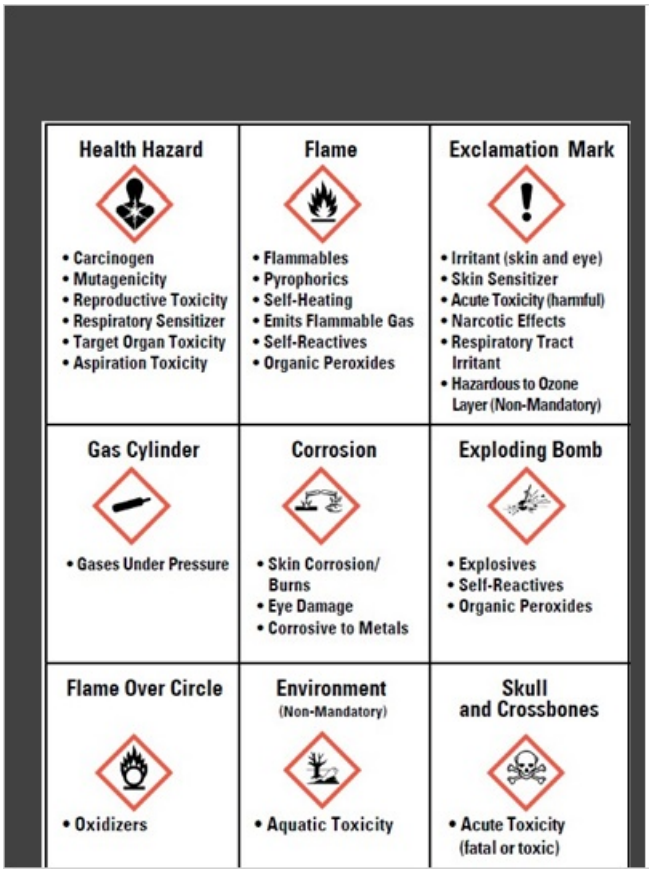
Other Protective Measures: Wear impervious clothing to prevent skin contact and contamination of personal clothing. An eye wash facility and washing facility should be available in the work area. Follow applicable regulations and good Industrial Hygiene practice.

9. Physical and Chemical Properties

Appearance: Liquid of varied colors
Odor: Slightly pungent
Odor Threshold: No data available
pH: Not applicable
Melting Point: No data available
Boiling Point: No data available
Flash Point: > 350°F (>177°C)
Evaporation Rate: No data available
Upper/Lower Flammability Limit: No data available
Vapor Pressure: <0.01 mm Hg @ 25°C
Vapor Density: No data available

Date Prepared/Revised: Dec. 6, 2013; Supersedes: April 3, 2

Updated Polytek® Safety Data Sheet (Page 1 Only)



Do you remember the "Diamond" label? The old labeling system (a diamond shaped symbol made up of four colors - white, blue, red and yellow) was often confusing.

With the introduction of the **SDS** (**Safety Data Sheet**), new pictograms allow you to quickly identify the specific hazards of a chemical - through pictures such as a "flame", "gas cylinder" or "health hazard" – as you see at left.

With the SDS, handling hazardous chemicals doesn't have to be confusing. Talk to you supervisor if you're not sure where to find the SDS information in your work area.

What about PPE? When you're working with hazardous chemicals, you need to wear the right gear such as goggles, gloves or gowns. We call these items **Personal Protective Equipment,** or **PPE** for short. As you might already know, the purpose of PPE is to protect and shield you from potential physical and health hazards.

In our clinics, we must provide you with the appropriate PPE for the hazards in your work area.

And, we must train you to use, store and dispose of the PPE properly.

Avoiding exposure while working with radiology equipment is as simple as following the three steps below.

TIME:
Limit the time that you are exposed to the imaging beam.

DISTANCE:
Stay at a safe distance from the imaging device.

SHIELDING:
Wear protective gear and stay behind protective shielding while the equipment is in use.

If you need additional training for your role in one of our clinics, talk to your supervisor.

Staying safe in the workplace also includes watching out for risks associated with falling, slipping or tripping.

While patient falls are a serious risk issue for our patients, unsafe conditions also exist for our staff.

To avoid injury from falls or slips, think about what you can do in your area to minimize potential hazards.

For example, keeping objects, such as furniture or boxes, out of hallways or away from traffic areas is an easy fix!

Floors must be clean, dry and free of obstacles. If you see a dirty floor, a spill or an obstacle, take the necessary steps to clean the area or remove potential hazards, even if it means calling for help.

Always wear slip-resistant shoes. If you are constantly on the move, this is a good plan to prevent slips.

Control cords. Bundle cords together with a strap, tape, etc.

Mark hazardous floors, entryways, and other traffic areas with proper signage. Signs should be posted when an area is wet, or in repair. Indicate that people should not walk through the area. Remove signs only when the hazard is gone!

PREVENTING SLIPS, TRIPS AND FALLS SAFETY GUIDELINES:

To avoid injury to yourself, your co-workers, our patients and visitors, check out the preventative guidelines above.

Falling, or tripping, typically results from cluttered floors, poorly placed wires/cords, uneven floors or even poor lighting conditions. The most serious type of fall, however, results from risks associated with stairs, steps tools or ladders. Here are some additional guidelines to review:

- **Stairwells must be clean, dry and well-lit.**
  Use handrails on the stairs and always take only one step at a time. Never run or hurry down, or up, a flight of stairs.

- **Lock ladders and step tools before use.**
  Once the ladder or steps tool is locked, climb straight up (don't lean) and ensure that you have the proper height for the item you need to reach.

- **When necessary, walk like a duck.**
  If you must walk on a wet surface, unavoidably, turn your feet slightly out and walk slowly, like a duck. This keeps your weight distributed as you walk. Keep your arms out for balance.

Standing or sitting for long periods of time can be stressful on your body.

On the next screen are our suggestions for minimizing risks while standing or sitting. If you need more information, please contact your divisional Human Resources team.

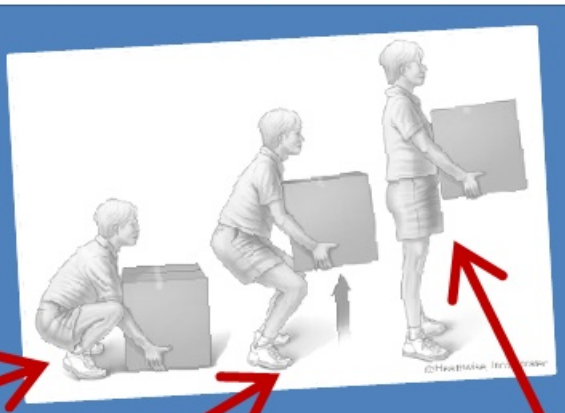
Standing

- Maintain good posture
- Use a footrest for one of your feet, or bend your knees
- Change positions every few minutes

Sitting

- Maintain neutral sitting posture, even if your back isn't supported
- Keep your feet on the floor
- Adjust your chair so that your hips are a bit higher than your knees and position your hips all the way back in the chair

Does your role require you to lift objects? When you lift objects, particularly from the floor, review these proper lifting techniques. Proper lifting will help avoid back injuries!



Step 1 First, stand close to the object with your feet shoulder-width apart.

Step 2 Next, bend with your knees and hips, and keep your back straight. Use your legs to lower yourself to the object. Most importantly, bend at your hips! Don't bend your back. Keep your eyes forward.

Step 3 Then, hold the object close to your torso and use your legs to stand up.

Thank you for completing our General Environmental Safety course.

We ask that you remember that you have responsibilities to respect our rules and regulations and to be familiar with all aspects of personal safety as they relate to your job. **Following our safety policies is key to the successful operation of our clinic and administrative facilities.**

When you're ready, please close this window to return to HealthStream to complete an online, multiple-choice test.