

Laboratory Safety Plan

Introduction

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Go ahead and get started.

Building and Room Number _____

Contact Information

Designated Person in Charge of Lab _____

Office Location _____

Phone Number _____

Department Chair _____

Office Location _____

Phone Number _____

Emergency Contact Information

EKU Police (859) 622-1111

Emergency 911

Environmental Health & Safety (859) 622-1111

PI/LS after hours contact # _____

Chemical Safety Officer _____

Phone Number _____

Other _____

Laboratory Safety Handbook

This Laboratory Safety Plan is lab-specific. The EKU Chemical Hygiene Plan and Laboratory Safety Handbook describe work practices and procedures that are consistent with EKU's Laboratory Safety Policy. The Chemical Hygiene Plan can be found at www.chemicalsafety.eku.edu and should be used when referencing general laboratory safety issues.

Standard Operating Procedures (SOPs)

A Standard Operating Procedure describes how hazardous chemicals, equipment, or materials will be handled safely, including special handling procedures, engineering controls, personal protective equipment, and how to create or obtain a working solution. SOPs can be kept electronically or on paper, as long as they are accessible to all lab members.

SOPs for this lab can be found in the following location: Attached

Chemical Inventory and Safety Data Sheets (SDSs)

Each lab should keep an inventory of all chemicals including the name, amount, CAS number, and location of each chemical.

The chemical inventory for this lab can be found in the following location: Attached

Access to Safety Data Sheets or SDSs (formerly known as Material Safety Data Sheets or MSDSs) for all chemicals present in each laboratory is required. SDS access can be electronic or physical.

SDSs for this lab can be found in the following location: www.sigmaaldrich.com

Waste Disposal

All chemical waste should be disposed of in accordance with the ECU Chemical Waste Handling Guide found here: http://cas.eku.edu/sites/cas.eku.edu/files/files/2013_14Docs/Chem_waste_handling%20edit%20120413.pdf.

Immediate Emergency Action – Calling for Help and Notifications

EMERGENCY ACTION

In a **Life-Threatening Emergency - Dial 911**

From a Campus or Public Telephone or use an Emergency Call Box.

Dial **911** from your cell phone (Off Campus) and

Dial **859-622-1111** from your cell phone (On Campus).

Program these numbers into the speed dial function of your cell phone.

1. **Protect Yourself First – Create and Manage Distance and Shielding from Threats**
Generally, the farther you move away from a threat, and the more solid and stable objects that you position between you and a threat, the safer you are from that threat.

2. Call 911 or 859-622-1111 or 859-622-1111

- Give your name, location, and phone number.
- Describe the nature of the incident and its location.
- Describe any injuries, weapons, hazards, devices, and property involved.
- Describe the people involved, where they are, and where they went.

- Stay on the line with the Dispatcher until help arrives.
- Keep the Dispatcher updated on any changes so responding units can be updated.
- Even if you cannot communicate, keep the line open.
- The Dispatcher may be able to learn more about what is happening.

(Note)

Dialing 911 from an on campus (land line or corded) telephone, using an emergency call box, or dialing 859-622-1111 or 859-622-2821 from a cellular phone will connect you to the ECU Public Safety Dispatch Center.

Dialing 911 from a cellular phone or dialing 859-624-4776 will connect you to the Madison County 911 Center.

In any case, you can summon the help you need – Police – Fire – Rescue – HAZMAT – EMS.

Local Medical Care Facilities

Police: Eastern Kentucky University Police Department

911 (Campus Phone) or 859-622-1111 or 859-622-2821 (Outside / Cell Phone)

<http://www.police.eku.edu/>

Fire/Rescue: Richmond Fire/Rescue Department

911 (Emergency) or 859-624-4776 or 859-623-1164 (Non Emergency)

<http://fire.richmond.ky.us/>

Ambulance: Madison County Emergency Medical Services (EMS)

911 (Emergency) or 859-624-4776 or 859-623-5121 (Non Emergency)

<http://www.madisoncountky.us/>

Medical Facilities:

EKU Student Health Services

521 Lancaster Avenue

103 Rowlett Building

Richmond, KY 40475

859-622-1761

<http://www.healthservices.eku.edu/>

Baptist Health Richmond

789 Eastern By Pass
Richmond, KY 40475
859-623-3131

Other Area Hospital Systems:**University of Kentucky Health Care**

859-257-1000 or 1-800-333-8874
<http://www.ukhealthcare.uky.edu/index.asp>

Good Samaritan Hospital

859-226-7000
<http://ukhealthcare.uky.edu/GoodSamaritan/index.asp>

Saint Joseph Health System

859-313-1000
<http://www.sjhlex.org/homepage.cfm?id=916>

Central Baptist Hospital

859-260-6100
<http://www.centralbap.com/>

Occupational Medicine Center

646 University Shopping Center
Richmond, KY 40475
859-623-0535
859-623-1950 (Instant Care Center for after hours)

Emergency Equipment available in or near the laboratory

Eye wash location	_____
Emergency shower location	_____
Fire extinguisher location	_____
Spill response materials location	_____
First aid kit location	_____
Personal Protective Equipment	_____
Location	_____

Emergency Notification

Contact EKU Police at (859) 622-1111, or 2-1111 or Dial 911

Provide the following information

- Name and telephone number of the caller
- Location of the emergency (building name, room number, and location within the room)
- Nature of the emergency (i.e. chemical spill; name of chemical(s) involved; fire; injuries; etc.)

Special considerations to mention when notifying emergency response agencies:

- Potential for explosion
- Acutely hazardous gasses/chemicals present
- People trapped in rooms or buildings
- Electrical hazards
- Property damage
- Impeded entry paths (i.e. chemical spill in the hallway leading to a room)

Evacuation Procedure (follow these steps if safe to do so)

1. Notify other laboratory personnel
2. If conditions permit, cap and secure open vials, bottles and other materials. Turn off laboratory equipment
3. Shut off gasses and/or eliminate open flames
4. Leave the laboratory and close the door
5. Activate the fire alarm as you leave the building to notify other building occupants of an emergency condition
6. If it is safe to do so, assist anyone who may be in danger or who may need special assistance.
7. Notify emergency response personnel via the "Emergency Notification" section once you have evacuated the building.
8. Congregate in the pre-designated assembly point for the building

Laboratory Fire (Personnel are not required to fight fires and should evacuate the building immediately in the event of a fire)

1. Notify other laboratory personnel
2. If conditions permit, cap and secure open vials, bottles and other materials. Turn off laboratory equipment
3. Shut off gasses and/or eliminate open flames
4. Leave the laboratory and close the door
5. Activate the fire alarm as you leave the building to notify other building occupants of an emergency condition
6. If it is safe to do so, assist anyone who may be in danger or who may need special assistance.
7. Notify emergency response personnel via the "Emergency Notification" section once you have evacuated the building.
8. Congregate in the pre-designated assembly point for the building

Note:

Fight a fire **ONLY IF**:

- You have been trained at ECU in the proper/safe use of a fire extinguisher and are confident in your abilities to cope with the fire or hazard
- The fire is a small, incipient stage, fire (no larger than a small waste basket)
- Terminate firefighting efforts when it becomes obvious that there is a danger from smoke, heat and/or flames

Fire Procedures

Fire Procedures

EMERGENCY ACTION

E.A.C.H. person is responsible for their own safety.

If you discover a fire or smoke or if you hear a fire alarm:

E. Evacuate the Building – Get Out – Don't Use Elevators – Use Stairs – Close (Don't Lock) Doors to Contain Fire

A. Alert Others – Activate the Fire Alarm (If Not Already Activated) – Help Others as You Leave

C. Call (911) For Help – Report to Emergency Responders Information about the Fire/Smoke/Need for Rescue

H. Have A Plan – You Must Protect Yourself – Be Knowledgeable About Fire Safety and Take Every Alarm Seriously

Fire Safety Information

A building occupant is required by law to evacuate the building when a fire alarm sounds. Know at least two escape routes from wherever you are. Review escape routes with others in your area. Practice escaping from each room with and without light(s). Never use the elevator to evacuate. In case of fire, always use the stairs to get out. Make sure to practice using the stairs as part of your escape plan. If someone has difficulty climbing up or down stairs, make sure to incorporate a contingency for this in your evacuation plans.

Do not re-enter the building or work area until you have been instructed to do so by the emergency responders.

To protect yourself, it is important to understand some basic characteristics of fire. Fire spreads quickly; there is no time to gather valuables or make extraneous phone calls. In just two minutes, a fire can become life-threatening. In five minutes, a residence can be engulfed in flames. Heat and smoke from fire can be more dangerous than the flames. Inhaling the super-hot air can sear your lungs. Fire produces poisonous gases that make you disoriented and drowsy. Instead of being awakened by a fire, you may fall into a deeper sleep. Asphyxiation is the leading cause of fire deaths, exceeding burns by a three-to-one ratio.

What to do during a fire:

If your clothes catch on fire:

- Stop, Drop, and Roll - until the fire is extinguished. Running only makes the fire burn faster.

To escape a fire:

Hot Door	Cool Door
<p>Do not open. Escape through a window if you can.</p> <p>If you cannot escape, hang a white or light-colored cloth outside the window, alerting Fire/Rescue to your presence.</p> <p>Seal yourself in for safety if you cannot exit due to smoke or fire. Call the fire department to report your exact location. Gather in a room with a window to await their arrival. Close all doors between you and the fire. Use duct tape or towels to create a seal around the door and over air vents in order to keep smoke from coming in.</p>	<p>Open slowly and ensure fire and/or smoke is not blocking your escape route. If your escape route is blocked, shut the door immediately and use an alternate escape route. If clear, leave immediately through the door and close it behind you. Be prepared to crawl. Smoke and heat rise. The air is clearer and cooler near the floor.</p>

- Check closed doors for heat before you open them. If you are escaping through a closed door, use the back of your hand to feel the top of the door, the doorknob, and the crack between the door and door frame before you open it. Never use the palm of your hand or fingers to test for heat - burning those areas could impair your ability to escape a fire (i.e., ladders and crawling).
- Crawl low under any smoke to your exit - heavy smoke and poisonous gases collect first along the ceiling.
- Close (but do not lock) doors behind you as you escape to delay the spread of the fire.
- Stay out once you are safely out. Do not reenter.
- Once outside, move to a clear area away from the affected building(s) or to a designated assembly area. Keep streets, fire lanes, hydrants, and walkways clear for emergency responders.
- Check in with your family and check in with someone who has responsibility for you.
- Seek medical attention if needed.
- **Basic First Aid for Burns:** Stop, Cool, and Cover.
Stop the burn. Cool the burn with cool running water. Cover the burn loosely with sterile dressings.

(When cooling the burn make certain that there is no contact with electricity)

(Loose sterile dressings can help prevent infection)

Fire Extinguishers:

You should only consider using a fire extinguisher if you have been trained on how to use one and only if you feel confident that you can use one safely.

A portable fire extinguisher can save lives and property by putting out a small fire or containing it until the fire department arrives; but portable extinguishers have limitations.

Because fire grows and spreads so rapidly, the number one priority is to get out safely.

Safety Tips:

- Use a portable fire extinguisher when the fire is confined to a small area, such as a wastebasket, and is not growing; everyone has exited the building; the fire department has been called or is being called; and the room is not filled with smoke.
- To operate a fire extinguisher, remember the word **PASS**:
Pull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism. Test it by discharging a short blast onto the floor before you enter where the fire is.
Aim low. Point the extinguisher at the base of the fire.
Squeeze the lever slowly and evenly.
Sweep the nozzle from side-to-side.
- For the home, select a multi-purpose extinguisher (can be used on all types of home fires) that is large enough to put out a small fire, but not so heavy as to be difficult to handle.
- Choose a fire extinguisher that carries the label of an independent testing laboratory.
- Read the instructions that come with the fire extinguisher and become familiar with its parts and operation before a fire breaks out. Local fire departments or fire equipment distributors often offer hands-on fire extinguisher trainings.
- Install fire extinguishers close to an exit and keep your back to a clear exit when you use the device so you can make an easy escape if the fire cannot be controlled. If the room fills with smoke, leave immediately.

Know when to go. Fire extinguishers are one element of a fire response plan, but the primary element is safe escape.

Emergency Eyewash and Shower Use

Immediate and proper use of emergency eyewash and safety showers is essential to minimizing injury upon exposure to hazardous materials. The following guidelines should aid in minimizing injury due to contact with hazardous materials:

- Flush eyes and/or skin for at least 15 minutes. Never use neutralizing solutions to flush chemicals from the body.
- Immediately remove contaminated clothing. Do this while under the shower when gross contamination has occurred. Have someone assist with clothing removal when possible. An assistant may use a fire blanket or uncontaminated article of clothing as a shield to provide privacy.
- Hold eyelids open with fingers so flushing fluid can fully irrigate the eyes.
- Have a bystander phone ECU Police at (859) 622-1111 or dial 911.
- Notify supervisor as soon as the emergency has subsided.
- Supervisor should immediately notify EH&S.

Gas Leaks

Situations involving uncontrollable leaking gas from a cylinder should be considered extremely dangerous and warrant immediate evacuation of the building. If the gas leak is minimal, innocuous, and safely within reach, the cylinder valve should be closed. Otherwise, leave the area and call ECU Police at (859) 622-1111 or dial 911. Activate the fire alarm as you exit the building to notify others of an emergency condition.

Ventilation Failure

If the laboratory ventilation system(s) fail, immediately cease all chemical operations and do not resume operations until the unit(s) are in proper working order.

Other

Plan Approval

Name	Date
Designated Person in Charge of Lab _____	_____
Chemical Safety Officer _____	_____
College Chair _____	_____