

Laboratory Safety Training for Non-Laboratory Workers

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Entering the Laboratory









- Door Signs
 - Provides information about hazards in the laboratory.
 - Hazards such as
 - Biologicals
 - Chemicals
 - Radiation
 - Lasers
 - Strong Magnetic Fields

Laboratory Information

- Carefully read all door signs on laboratory doors.
- Emergency Contact information for Principal Investigator
- Understand the hazards associated with each symbol.

ADMITTANCE TO AUTHORIZED PERSONNEL ONLY

! CAUTION: The following hazards are present within this area:

<input type="checkbox"/>		Flammables Self Reactives Pyrophorics Self-Heating Em its Flamm able Gas Organic Peroxides	<input type="checkbox"/>		Carcinogen Respiratory Sensitizer Reproductive Toxicity Target Organ Toxicity Mutagenicity Aspiration Toxicity	<input type="checkbox"/>	Biohazards IBC #
<input type="checkbox"/>		Oxidizers	<input type="checkbox"/>		Irritant Dermal Sensitizer Acute toxicity (harmful) Narcotic Effects Respiratory Tract Irritation	<div style="border: 1px solid black; width: 100%; height: 100%; text-align: center; padding: 10px;"> (Biohazard symbol here) </div>	
<input type="checkbox"/>		Explosives Self Reactives Organic Peroxides	<input type="checkbox"/>		Acute Toxicity (severe)		
<input type="checkbox"/>		Corrosives	<input type="checkbox"/>		Gas Under Pressure	<input type="checkbox"/>	Viral vectors
<input type="checkbox"/>	Strong Magnetic Field		<input type="checkbox"/>	Laser (Class _____)		BSL _____	
<input type="checkbox"/>	Radioactive Material		Special procedures required for entry or exit:				

Room Number: _____

Department: _____

Principal Investigator: _____ Supervisor: _____

Emergency and After Hours Contacts for this Laboratory:

Name	Office Location	Office Phone	Cell or Home Phone

University of Kentucky
ENVIRONMENTAL HEALTH AND SAFETY

Biological Safety	257-1049
Environmental Management	323-6280
Occupational Health	257-3242
Radiation Safety	323-6777






IN CASE OF EMERGENCY CALL 911






The information on this sign must be updated at least annually or in the event of any change of emergency contacts or special hazards.

Prepared by: _____ Date Posted: _____

Door Signage Pictograms

GHS – Hazard Pictograms and correlated exemplary Hazard Classes

Physical Hazards				
				
Explosives	Flammable Liquids	Oxidizing Liquids	Compressed Gases	Corrosive to Metals

Health Hazards				Env. Hazards
				
Acute Toxicity	Skin Corrosion	Skin Irritation	CMR ¹⁾ , STOT ²⁾ , Aspiration Hazard	Hazardous to the Aquatic Environment

1) carcinogenic, germ cell mutagenic, toxic to reproduction / 2) specific target organ toxicity

GHS Pictograms and Hazard Classes

pic 1803



Oxidizers

pic 1802



Flammables
Self Reactives
Pyrophorics
Self-Heating
Emits Flammable Gas
Organic Peroxides

pic 1801



Explosives
Self Reactives
Organic Peroxides

pic 1809



Acute Toxicity (severe)

pic 1808



Corrosives

pic 1804



Gases Under Pressure

pic 1807



Carcinogen
Respiratory Sensitizer
Reproductive Toxicity
Target Organ Toxicity
Mutagenicity
Aspiration Toxicity

pic 1806



Environmental Toxicity

pic 1805



Irritant
Dermal Sensitizer
Acute Toxicity (harmful)
Narcotic Effects
Respiratory Tract Irritation



Biological
Hazard
Sign

Biological Hazards

- **Biological hazards**, also known as **biohazards**, refer to biological substances that pose a threat to the health of living organisms, primarily that of humans. This can include medical waste or samples of a microorganism, virus or toxin (from a biological source) that can impact human health. It can also include substances harmful to animals. The term and its associated symbol is generally used as a warning, so that those potentially exposed to the substances will know to take precautions

Biological Hazards

- All biological materials should be put away when work is taking place.
- Do not touch anything marked with a biological hazard symbol.
- If a spill of a biological material occurs, contact your supervisor and the contact information on door.



Radiation

Radiation

- Radiation is defined as particles or energy given off by radioactive material
- Radioactivity is the capacity of a material to emit radiation.
- Types of radiation
 - Ionizing – alpha, beta, gamma, x-ray
 - Non-ionizing – microwave, UV light, infra-red

What that means to you

- Do not touch anything that is marked as radioactive.
- Will be defined by radioactive sticker both on door of laboratory and in area.
- If a spill did occur, contact your Supervisor and contact information on door.

**WARNING
STRONG
MAGNETIC FIELDS**



Magnetic Fields Can Exceed 5 Gauss



NO CARDIAC PACEMAKERS, IMPLANTABLE
CARDIOVERTER DEFIBRILLATORS OR MAGNETIC IMPLANTS

Persons with certain metallic, electronic, magnetic, mechanical implants, devices, or objects may not enter this area.



Serious injury may result.

NO LOOSE METAL OBJECTS or MAGNETIC MEDIA

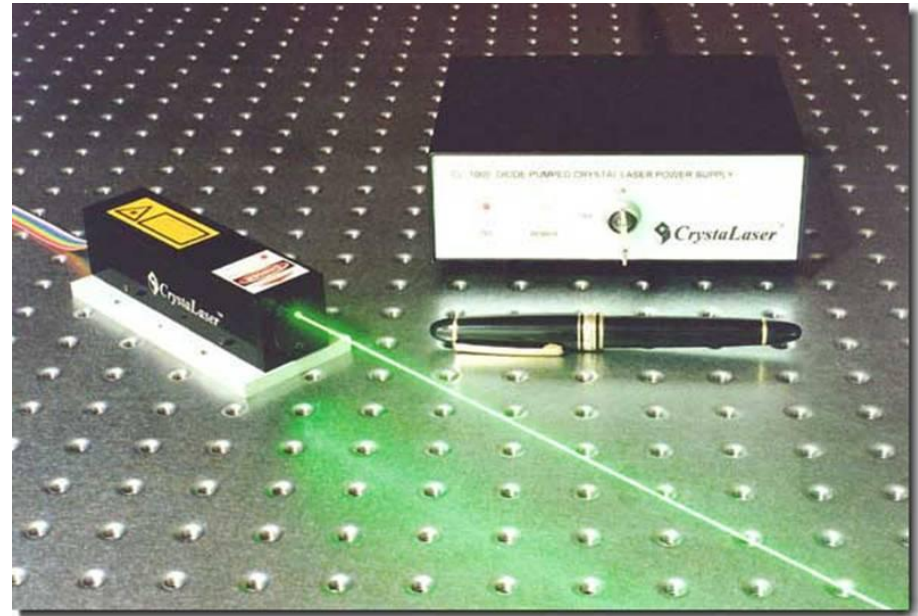
Objects made from ferrous materials may cause serious injury or property damage. Electronic objects such as hearing aids, cell phones, and pagers may also be damaged. Magnetic media, ATM/credit cards, etc. may be affected past this sign.

For more information contact the lab owner or EH&S (254-8300)

Magnetic Energy

Magnetic Fields

- Not allowed in room
 - Person with cardiac pacemakers, implantable cardioverter defibrillators or magnetic implants
 - No loose metal objects or magnetic media
 - Hearing aids, cell phones
 - ATM/Credit cards
 - Minimize ferrous metals in area



Lasers

Lasers

- Should not be on while in the laboratory
- If on, will see the green flashing light through the door window.
 - Could cause eye damage if look into laser
- Do not enter the laboratory, if the laser is on.



Chemicals

Chemicals

- All chemicals should be put away when work is being done in laboratory.
- Do not touch any chemicals/ glassware/ boxes, etc.
- If a spill does occur, contact supervisor and contact on the door.



In Case of an
Emergency

Emergency Safety Equipment

- The eyewash and shower in the laboratory can be used in case of an emergency.
- Take a few minutes to familiarize yourself with the location and use of the eyewash and shower in the laboratory.
- Keep area Clear!

Emergency Eyewash Station



Using an Eye Wash Station

- Hold eyelids open using the thumb and index finger to help ensure the effective rinsing has occurred behind the eyelid.
- It is normal to close eyes tightly when splashed, but this will prevent water or eye solution from rinsing and washing the chemical out. Eyelids must be held open.

Using an Eye Wash Station

- Flush eyes and eyelids with water or eye solution for a minimum of 15 minutes.
- “Roll” eyes around to ensure full rinsing.

Using an Eye Wash Station

- Contact lenses must be removed as soon as possible.

- Medical attention should be sought immediately!

Emergency Shower Stations



Using a Safety Shower

- Pull handle to activate shower
- Remove contaminated clothing
- Allow copious amounts of water on affected area for a minimum of 15 minutes
- Turn shower off, by pushing up handle

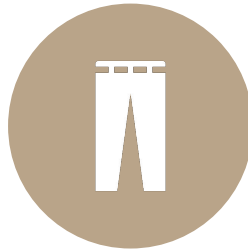
Using a Safety Shower

- Medical attention should be sought immediately!
- Ideally another person in the lab should make contact with responders or dial 911.

Proper Attire in Laboratory



**SAFETY
GLASSES**



**LONG
PANTS**



**COVERED
SHOES**

Food and Drink

- Absolutely No Food or Drink in the Labs



Hazard Communication

- Be Aware: Any chemical could be in the laboratory at anytime.
- Contact Aaron Charles- 257-4016
- Velocity EHS
[-https://chemmanagement.ehs.com/9/2b7c02ed-69af-4369-9b38-83f0daa7891c/ebinder](https://chemmanagement.ehs.com/9/2b7c02ed-69af-4369-9b38-83f0daa7891c/ebinder)



Occupational Health and Safety



Velocity EHS

- Online Safety Data Sheet Management System
- Available on the UK OHS Website

eBinder for All Locations

Search eBinder by All Categories Search your eBinder

Filters Share Export

1105 products (0) selected

Select All Sort by Last Added (Descending)

	Product Name	Revision Date	Product CAS #	Date Added
<input type="checkbox"/>	3M Fire Barrier Moldable Putty Stix MP+ 3M - Industrial Adhesives and Tapes	06/15/2023	—	02/08/2024
<input type="checkbox"/>	HPC INDUSTRIAL ALKYD GLOSS 4308 NEUTRAL BASE PPG Industries, Inc.	01/03/2024	—	02/08/2024
<input type="checkbox"/>	KRYLON Chalkboard Paint Black Krylon Products Group	06/10/2023	—	02/08/2024
<input type="checkbox"/>	RMR-86 Mold Stain & Mildew Stain Remover RMR Solutions, LLC	08/11/2022	—	02/08/2024
<input type="checkbox"/>	Whizzer Mueller Sports Medicine, Inc.	02/16/2023	—	02/06/2024
<input type="checkbox"/>	CaviCide Metrex Research	05/17/2022	—	02/06/2024

Velocity EHS Webpage

Questions?