CU Custodial Staff:
General Lab Safety Awareness

THE OFFICE OF CU ENVIRONMENTAL SAFETY
IN COLLABORATION WITH
CU FACILITIES AND CU RESEARCH SAFETY
Proper Attire to Enter Labs

In order for the custodial staff to enter a lab, he or she must have on the proper attire.

This includes long pants and closed toe shoes.
Minimal Personal Protective Equipment (PPE) for Custodial Staff to Enter a Lab

What to Wear to Enter a Lab:
Safety glasses and Gloves.
These items will be provided by the Custodial department.
Lab Door Signage

Universal Lab Door Signage:

**Hazardous Materials:**
- Carcinogens
- Mutagens
- Teratogens
- Corrosives
- Flammables (Solid and Liquid)
- Water Reactive Chemicals
- Unstable Chemicals

**Emergency Dial:**
- 9-1-1

**Entry Requirements:**
- Eye Protection
- Lab coat and gloves compatible with hazard required for all lab workers.

**MSDSs are located:**

- Name: [Name]
- Title: [Title]
- Department: [Department]
- Office: [Office]
- Office Phone: [Office Phone]
- Other Hours Phone: [Other Hours Phone]
Lab Door Signage:
Notice, in the upper, right hand corner, there is a red dot.
Custodial Staff is NOT Allowed to ENTER.
Lab Door Signage:
Notice, in the upper, right hand corner, there is a yellow dot.
**Custodial Staff May Enter with Escort Only.**
Lab Door Signage:
Notice, in the upper, right hand corner, there is a green dot.
Custodial Staff May Enter the Lab.
Floors in Labs

In the Labs:
Do Not move items in floor.
The lab is responsible for proper disposal and moving items in the floor.
Counter Tops in Labs

**In the Labs:**

Do **Not** touch Counter Tops.
The lab is responsible for counter tops.
In the Labs:
Acceptable general, non-contaminated trash cans and liners.
Trash in Labs

**In the Labs:**
The items below may be found in general, non-contaminated trash.

The items below are Not syringes.
This is a plastic pipette tip.

The item below is a disposable glove.

These are plastic pipettes.
Trash in Labs

In the Labs:
Empty chemical containers with labels intact are **Not** disposed of in general, non-contaminated trash. Labels must be marked out or removed.
Trash in Labs

**In the Labs:**
Empty containers:
Example of a properly defaced empty container.
**In the Labs:** Custodial Staff does **Not** dispose of broken glass containers. Do **Not** Touch. The lab is responsible for proper disposal.
What To Know Before Entering a Lab: Right To Know

Hazard Communication (Right To Know)
Safety Data Sheets (SDS) and Material Safety Data Sheets (MSDS)
Labeling
The 9 Pictograms of Hazard Classes
Right To Know: The 9 Pictograms and What They Mean

GHS – Hazard Pictograms and correlated exemplary Hazard Classes

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

Health Hazards
- Acute Toxicity
- Skin Corrosion
- Skin Irritation
- CMR¹, STOT², Aspiration Hazard

Env. Hazards
- Hazardous to the Aquatic Environment

¹) carcinogenic, germ cell mutagenic, toxic to reproduction / ²) specific target organ toxicity
Signs and Symbols in Labs

**Signs and Symbols:**
Flammable materials.
Do **Not** Touch.
Signs and Symbols:
Oxidizing materials.
Do Not Touch.
Signs and Symbols in Labs

**Signs and Symbols:**
Explosive materials.
Do **Not** Touch.
Signs and Symbols:
Corrosive materials.
Do Not Touch.
Signs and Symbols in Labs

**Signs and Symbols:**
Toxic materials.
Do Not Touch.
Signs and Symbols:
Water Reactive materials: Containers and/or storage.
Do **Not** Touch.
Do **Not** use water around these chemicals.
Laboratory Signage:
Biological Labs and Biosafety:
A biological lab: research with plants, animal or human tissues.

Biosafety Level 1 (BSL 1 or BL 1): may not have signs

Biosafety Level 2 (BSL 2 or BL 2): signs posted
Biological Labs and Biosafety:
These signs do not indicate a BL 2 Lab, only that bio-hazardous materials are present in the lab.
Biological Labs and Biosafety:
The lab is responsible for proper disposal. Do **Not** Touch.
Biological Labs and Biosafety:
The lab is responsible for proper disposal.
Do **Not** Touch.
Biological Labs and Safety:
If a biohazard safety label is shown, and the item is misleading, Do Not Touch.
Biological Labs and Safety:
Custodial staff does **Not** touch sharps containers. The lab is responsible for proper disposal.

Sharps/Syringes. Do **Not** Touch.
Radioactive Materials and Radsafety:
Radiation is invisible energy created by various agents and machines. Example: X-ray machines
Radioactive Materials and Rad safety:
Radioactive materials are disposed in yellow containers and/or yellow bags.

Custodial staff is **Not** to dispose of these items. Do **Not** Touch.
Radioactive Materials and RadSafety:
Examples of Radioactive Material in yellow disposal containers and yellow liners. Do **Not** Touch.
Lasers and Magnets:
A few labs on CU campus have Lasers and/or Magnets. Do Not enter when the laser or magnet is in use.

The two signs below: Lasers

The two signs below: Magnets
What is Hazardous Waste?

Do Not Touch.

If it is a chemical that is ready for disposal, it must be disposed as a Hazardous Waste.
Hazardous Waste in Labs

Hazardous Waste Labels:
Do **Not** Touch.
Hazardous Waste in Labs

Properly labeled Hazardous Waste:
Do Not Touch.

A Hazardous Waste Label will include:
   Chemical name
   Hazards
Hazardous Waste in Labs

Properly labeled Hazardous Waste: Do Not Touch.
**Equipment in Labs**

**Lab equipment:**

Chemical Fume Hood. Do **Not** Touch.

No Biological Safety Cabinet (BSC). Do **Not** Touch.
Equipment in Labs

Lab equipment:
Flammable cabinets.
Do Not Touch.
Equipment in Labs

Lab equipment:
Corrosives cabinets.
Do Not Touch.
Equipment in Labs

**Drench equipment:**
Safety showers:

15 minutes
Drench equipment:
Eye Wash:
15 minutes
Clemson University Fire Department responds to spills for main campus.

In the event of a spill, contact CUFD by dialing: 911 or 656-2222.

OSHA’s Laboratory Standard 29 CFR 1910.1450 is known as the Occupational Exposure to Hazardous Chemical in Laboratories. OSHA has written this to minimize employee exposure to hazardous chemicals in the labs. Just as OSHA oversees Hazard Communication for employees, it also oversees this lab standard program for all labs.

The South Carolina Department of Health and Environmental Control (DHEC) has granted CU a radioactive materials license. CU is committed to keeping all radiation exposures As Low As Reasonably Achievable (ALARA).

Both the U.S. EPA and SC DHEC regulate the disposal of chemical wastes.

All Labs have rules and regulations that they must follow.
The Office of Environmental Safety provides training in the following areas:
Hazard Communication
Bloodborne Pathogens
General Lab Safety for Custodians
General Lab Safety for Facilities Maintenance
Safety Data Sheets
SPCC and Storm Water (MS4)
Asbestos
Ladder and Scaffold
Confined Space
Chemical Fume Hoods
Forklifts

The Office of Research Safety provides online training in the following areas:
Biological Safety
Biological Safety Cabinets
Bloodborne Pathogens
Chemical Hygiene
Hazard Communication
Hazardous Waste Management
Laser Safety
Safety Data Sheets