



### General

- A standardized lab hazard sign has been established at OSU; its purpose is to warn employees and visitors entering laboratories and other hazardous areas.
- **A sign is required** (sample depicted below) **at each main entrance to:**
  - Laboratory rooms or complexes, teaching labs, workshops, and workrooms with materials not commonly found in an office environment.
- A sign **is not required** in:
  - Offices, break rooms, general purpose classrooms, rest rooms, or food prep areas.
- Signs are generated by EH&S. However, personnel responsible for the hazardous area (i.e. PIs, Lab and Shop Managers) are responsible for providing EH&S with current and accurate information via the ONID accessed [Lab Hazard Sign Request](#).

DEPT.
BLDG. / ROOM

# CAUTION

**CHEMICAL  
USE**

**BSL 2  
Agent**

**RADIOACTIVE  
MATERIAL  
X RAY**

**RESTRICTED  
AREA  
AUTHORIZED PERSONNEL  
ONLY**

**NO FOOD OR DRINK  
ALLOWED IN  
LABORATORIES**

Entrance Requirements: Closed-toe footwear  
Work Requirements: Lab Coat, Gloves, Protective Eyewear;

**EMERGENCY CONTACT INFORMATION**

Name	Office	Phone
P.I.		
Lab Contact		
Lab Contact		
Dept. Office		

**FIRE- POLICE- AMBULANCE 911**  
 CAMPUS SECURITY: 737-7000  
 ENV. HEALTH AND SAFETY 737-2273

Note: Lab Hazard sign icons and information are inherently dependent upon the space they represent.

### Sign Components

#### Hazard Warning Icons

- A **hazard warning icon** is required for each piece of equipment or material stored or used **at or above the amounts listed** in the following **Hazard Warning Icon Definitions** section.

**Contact EHS:**  
[www.ehs.oregonstate.edu](http://www.ehs.oregonstate.edu)  
[ehs@oregonstate.edu](mailto:ehs@oregonstate.edu)  
 541 • 737 • 2273

## Emergency Contact Information

- This information assists EH&S in the event of an emergency and may help to **save your research and/or equipment**.
- Include the names of the individual(s) responsible for the space.

## Hazard Warning Icon Definitions



### Flammable Solvents

- Room contains **10 gallons or more** of flammable liquids in one or more containers.
- A flammable liquid is defined as any liquid that has a flash point below 100 degrees Fahrenheit (°F) or 37.8 degrees Centigrade (°C).



### Flammable Gas

- The room contains **200 cubic feet or more** of a flammable gas in one or more containers.
- A flammable gas is defined as any gas that has a flash point below 100 °F ( 37.8 °C) with a container pressure of 40 psig at 100 °F.
  - **Example:** a single large compressed gas cylinder of hydrogen.



### Highly Toxic Chemicals

- The room contains a total of **1 pound or more** of highly toxic chemicals.
- A highly toxic chemical is a substance with an oral LD50 of less than 50 mg/kg or skin toxicity of less than 200 mg/kg.
- Liquid chemicals should be converted to pounds for this computation.



### Toxic Gas

- The room contains **any amount** of a highly toxic gas (inhalation LC50 < 200 ppm).
  - **Examples:** Arsine, Cyanogen, Fluorine, Germane, Hydrogen cyanide, Hydrogen selenide, Nitric oxide, Nitrogen dioxide, Nitrogen trioxide, Phosgene, Diphosgene, Phosphine, Stilbene.
- The room contains **80 cubic feet or more** of toxic gases (inhalation 200 < LC50 < 2000 ppm).
  - **Examples:** Boron trifluoride, Chlorine, Chlorine dioxide, Chlorine trifluoride, Diborane Fluorine, Hydrogen bromide, Hydrogen chloride, Hydrogen fluoride, Hydrogen iodide, Hydrogen sulfide, Methylbromide, Nitrogen trifluoride, and Ozone.



### Oxidizers

- **More than 1 pound** of a Class 3 oxidizer.
  - Class 3 oxidizer is defined as a substance that will cause a severe increase in the burning rate of combustible material.
  - **Examples:** Ammonium dichromate, Bromine trifluoride, concentrated Perchloric acid, Potassium bromate, and Potassium chlorate.
- **More than 25 pounds** of a Class 2 oxidizer.
  - Class 2 oxidizer is defined as a substance that will moderately increase the burning rate.
  - **Examples:** Calcium hypochlorite, Chromic acid, Nitric acid, Potassium perchlorate, Potassium permanganate, and Sodium permanganate.
- **More than 150 cubic feet** of an oxidizing compressed gas.
  - **Examples:** Oxygen, Oxides of Nitrogen.



### Restricted Area

- **Access** to the room is **restricted** for students and visitors.
- The restriction does not apply to custodians or Facilities Services personnel who are performing required maintenance activities.



### Corrosive Materials

- The room contains **more than 50 gallons (liquid) or 500 pounds (solid)** of corrosive materials in one or more containers.
- A corrosive material is defined as a solid caustic substance or a liquid which has a  $2 < \text{pH} < 12$ .
- Typical examples of corrosive materials would be acids such as Chromic, Hydrochloric, Hydrofluoric, and Sulfuric; bases such as Ammonium hydroxide, Calcium hydroxide, Potassium hydroxide, Potassium carbonate, and Sodium hydroxide.



### Biohazard

- The room contains a **biological agent**, capable of self-replication, which presents or may present a hazard to the health or well-being of humans.
- The agent is a human blood borne pathogen or work with the agent has been assigned to be handled in a Biosafety Level (BSL) 2, BSL-3, or BSL-4 laboratory based on the guidelines established in the CDC / NIH book "[Biosafety in Microbiological and Biomedical Laboratories](#)".
- The name of the agent(s) must be entered on the hazard sticker.



### Radioactive Material

- The room contains **any amount** of radioactive material.

### Radiation Area

- The room contains a **radiation source** that poses a significant external radiation hazard.
- Sign issued by Radiation Safety group.



### X-Ray Equipment

- This room contains a machine which **produces X-Ray radiation**.



### Laser Light

- The room contains a **Class 2 or Class 3a laser** as defined by ANSI Standard Z136.1.
- Under this classification, a Class 2 continuous wave laser in the visible range (400nm to 700nm) which can emit a power exceeding 0.4 micro Watts.
- Class 4 laser installations emit power exceeding 0.5 W and require a special sign issued by EH&S.



### Cancer Suspect Agent

- The room contains **any amount** of High or Extreme hazard chemical carcinogens as described by the [University's Chemical Carcinogen Safety Program](#).