
I. PURPOSE
To protect University employees who work in laboratory areas where hazardous materials are used or stored and to provide policy for the use of Laboratory Coats, Gloves, and Protective Eyewear (PPE).

II. BACKGROUND
Oregon State University is committed to providing a safe and healthy working environment for the University community. It is University policy to comply with all applicable health, safety and environmental protection laws, regulations and requirements. The Occupational Safety and Health Administration (OSHA) ensures workplace safety through the enforcement of established federal legislation, and the Oregon Occupational Safety and Health Administration (OR-OSHA) operates as the acting state regulatory enforcement body under the direction of the OSHA act.

Title 29 of the Code of Federal Regulations, Part 1910, Subpart 1 and OAR 437-002-0134 states that, “protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.”

Additionally, current federal biological safety guidelines and/or regulations from the Centers for Disease Control and Prevention, the Animal and Plant Health Inspection Service and the National Institutes of Health require the use of PPE in laboratories designated as biosafety level (BSL) 1 or higher and when working with research animals, based on a risk assessment process.

III. DEFINITIONS
- PPE – For purposes of this Policy, PPE is defined as comprising of Laboratory Coats (either Flame-resistant NFPA 2112 rated, or Standard lab coat of 80%/20% polyester/cotton), Gloves appropriate to the task and hazards, and Protective Eyewear having side splash protection and that meets ANSI Standard Z87.
• Hazardous Materials – Any item or agent (biological, chemical, radiological, and/or physical), which has the potential to cause harm to humans either by itself or through interaction with other factors. Hazardous Material types are listed in Appendix A.
• Safety Data Sheet (SDS) is a document required by the OSHA Hazard Communication Standard that describes a material’s chemical properties and corresponding physical, health, and environmental health hazards; protective measures; and safety precautions for handling, storing, and transporting the material.
• RG – Risk Group, a designation used to classify infectious agents according to the risk of illness due to infections to healthy adults, as defined by the World Health Organization, National Institutes of Health and/or the Centers for Disease Control and Prevention. There are four risk groups, with RG-1 containing the lowest risk and RG-4 containing the highest.

IV. POLICY STATEMENT
Pursuant to regulations and best practices, and in an effort to prevent workplace injuries and illnesses, OSU has established this Policy regarding laboratory PPE requirements for all OSU research and teaching faculty, staff, student employees, and other OSU employees where applicable. Laboratory Coats, Gloves, and Protective Eyewear are required to be worn while working with or in the vicinity of hazardous materials that pose a potential hazard to the employee as determined by the Principal Investigator or lab supervisor. When employees are required to wear PPE, the cost of the equipment shall be considered a university expense.

V. RESPONSIBILITIES
Preventing workplace injuries and illnesses is the responsibility of every member of the campus community. Specific responsibilities are assigned to members of the research and teaching community in order to implement and ensure compliance with this Policy by their subordinate staffs.

• The President and Provost have overall responsibility for compliance with health and safety requirements at all OSU facilities and programs.
• The Vice President for Research and Vice President for Finance & Administration are responsible for supporting this Policy in all applicable research and teaching laboratories within their jurisdiction.
• Department Chairpersons are responsible for communicating, promoting and enforcing this Policy in their respective research and teaching areas.
• Principal Investigators, supervisors or instructors are responsible for assessing hazards in areas where their employees work and determining which areas require the use of PPE. Supervisors and instructors are responsible for ensuring that employees, student employees, and other OSU employees wear the PPE as specified. Supervisors may consult EH&S as needed to ensure that the type of PPE selected is appropriate.
• All OSU staff and employees working with hazardous materials are responsible for following this Policy.
• Enterprise Risk Services - Environmental Health & Safety (EH&S) is responsible for assessment of laboratories and monitoring compliance with this Policy. In cases where laboratory activities and improper/lack of use of PPE poses an immediate danger to life or health, EH&S in coordination with the affected department, upper administration, the Chief Risk Officer, and the Chief Compliance Officer, has the authority to order the temporary cessation of the laboratory activity until the hazardous condition is abated.

VI. PPE SAFETY REQUIREMENTS
The following PPE requirements pertain to all OSU laboratory research and teaching faculty, staff, student employees, and other OSU employees where applicable:

A. Full length pants, or equivalent, and close-toed shoes must be worn at all times by all individuals that are occupying the laboratory area where hazardous materials are being used or stored. The area of skin between the shoe and ankle should not be exposed.

B. Laboratory Coats, Gloves, and Protective Eyewear are required to be worn while working with or in the vicinity of hazardous materials that pose a potential hazard to the employee as determined by the Principal Investigator or lab supervisor. Laboratory coats must be appropriately sized for the individual and be buttoned to their full length. Laboratory coat sleeves must be of a sufficient length to prevent skin exposure while wearing gloves. Protective gloves must be worn while utilizing any hazardous material and must be appropriate for the specific material being used. The Safety Data Sheet (SDS) for the hazardous material should be referenced when determining the effectiveness of the type of PPE to be used. In addition, EH&S can be consulted on PPE selection.

C. Laboratory coats and protective eyewear may not be worn outside of a laboratory unless the individual is traveling directly to an adjacent laboratory work area. Protective gloves must not be worn in any area outside of the laboratory (i.e., hallways, elevators, offices). Gloves must be removed prior to handling any equipment that could likely result in cross-contamination (e.g., door knobs, telephones, keyboards, etc.).

D. Flame-resistant laboratory coats must be worn when working with any amount of pyrophoric materials, or any amount of flammable liquids near ignition sources, or when working with flammable liquids in amounts that pose a greater than de-minimus risk as determined by the Principal Investigator or lab supervisor.

E. Each department or research unit shall participate in the University’s contract with a professional laundry service vendor. Laboratory coats shall not be cleaned by staff members or other OSU employees at private residences or public laundry facilities. Nothing in this Policy shall preclude a department from maintaining a separate contract for professional laundry services, provided the type of PPE and cleaning schedule have been approved by EH&S.

F. Some operations and procedures may warrant protective clothing in addition to laboratory coats, gloves, and protective eyewear, as indicated by the Safety Data Sheet, the standard operating procedures for the material being used, facility policies, regulatory requirements, or EH&S. Laboratory
specific procedures and protective clothing in these instances shall be addressed within the Principal Investigator’s or lab supervisor’s chemical hygiene plan and any specific standard operating procedures implemented by the laboratory.

Safety Policy & Procedure Manual
SAF 202-1: Personal Protective Equipment for Hazardous Materials in the Laboratory – Laboratory Coats, Gloves, and Protective Eyewear (PPE)

APPENDIX A. HAZARDOUS MATERIALS LIST
The below definitions for “hazardous materials” are to be used as a guideline. It does not supersede OR-OSHA or other regulations or accepted safe work practices for specific materials. PPE and other safety measures, as appropriate, must be used to protect workers from any known hazards that are present in all work-related activities at OSU. Refer to the Oregon Administrative Rules and EH&S for additional guidance in developing protective measures for any hazardous materials not listed below.

The following materials are defined as “hazardous materials” for the purposes of this Policy:

- Highly toxic materials or materials with an LD$_{50} \leq 50$mg/kg; LC$_{50} \leq 200$ppm; or LC$_{50} \leq 2$mg/l.
- Explosive materials as defined by the U.S. Dept. of Transportation, 49 CFR 172, Subpart B.
- Extremely Hazardous Substances as defined by 40 CFR 355, Subpart D.
- Flammable or combustible liquid, solid, or gas.
- Carcinogenic, mutagenic, or teratogenic materials.
- Pyrophoric, water-reactive, or peroxide forming materials.
- Compressed or cryogenic gas.
- Strong acids, bases, oxidizing, or reducing materials.
- Known significant skin or eye irritants.
- Perchlorates or organic peroxides.
- Biological materials including but not limited to cell lines, blood or body fluids, microorganisms, regulated sharps, or recombinant / synthetic nucleic acids considered RG-1 or higher.
- Radioactive materials reported under an OSU Radiation Use Authorization.
- Hazardous waste.
- Toxins of biological or synthetic origin (e.g., diphtheria toxin, conotoxins, endotoxins, cholera toxin, etc.).

- Nanomaterials.

- Controlled substances (DEA listed materials).

- Chemicals of Interest (Dept. of Homeland Security listed materials).

- Any other hazardous substance, not listed in previous bullet points, that has an NFPA 704 or HMIS hazard rating of greater than or equal to 1 and is stored in either quantities of >50 grams or >100 milliliters. For the NFPA or HMIS ratings, consult the material’s Safety Data Sheet.