Laboratory Hazard Assessment Form

This form is to assist the Principal Investigator (PI), Lab Supervisor, or responsible personnel in assessing their lab spaces for hazards and to document trainings given to lab members to inform, educate, and mitigate the common hazards found in laboratories. A hazard assessment will also identify personal protective equipment (PPE) needs and training on proper PPE use. The State of Oregon mandates the use of hazard assessments; more information can be found at the following website: PPE hazard assessment guide. Assessments are also a major element of the University's Chemical Hygiene Plan, (See Chemical hygiene Plan information), and keeping faculty, staff, students, and visitors safe while performing duties in and around laboratories.

Please take time to examine the processes in the lab and the PPE used. Check the appropriate hazard box and give a brief note in column 5 on what PPE is used and what training is given. If applicable, mechanical (e.g., fume hoods, shields, restraints) and administrative (e.g., work practices, policies, SOPs) controls should be described. If there are special processes with unique hazards that do not appear to fit in any of the delineated hazards, please describe in the "other" box or attach to the form on a separate sheet.

Note that every hazard control method has training as a form of control. It is vital that we train lab members before placing them in a potentially hazardous situation. Tracking this training identifies opportunities to improve our work environment and safety on campus. Please use the Laboratory Safety Training Worksheet to help in this task, and maintain in the lab's records.

When completed, send this form to Environmental Health & Safety via fax (541-346-7008), email (ehsinfo@uoregon.edu) mail, email, or hand deliver (1715 Franklin Blvd. Suite 2A). Questions on using this form, PPE selection, or trainings can be directed to:

Matthew Hendrickson
Chemical Safety Officer
541-326-9299
mhendric@uoregon.edu

Hazard Assessment Worksheet

Name of Procedure:			Department and lab:	
Name of Person Completing this hazard assessment:				
Signature:			Date:	
Check if Hazard is Present	Type of Hazard	Hazard Description	Potential Hazard Control Methods (Engineering, Administrative, PPE)	Control Methods Used in Assessed Lab (what controls do you use)
☐	Animal Hazard	Allergens, bites, body fluids, zoonosis	IACUC approval, PPE, work are and access controls, training	
☐	Biological (e. g. biological toxins, blood or body fluids, genetically modified organisms, infectious materials, tissues)	Disease transmission, foreign genetic material introduction	Possible board approval IRB, IBC. PPE, training on blood borne pathogens and universal precautions	
☐ ☐ ☐ ☐ ☐ ☐ ☐	Chemical Hazards: Carcinogen Flammable Asphyxiant Corrosive Reactive Toxic Other:	Skin and Eye irritation or damage, skin absorption, inhalation of toxic vapors, cancer or mutagenic effects, environmental impact, sensitization, dangerous reactions, poisoning	Proper PPE selection for the hazard (safety glasses/goggles, lab coats (possible flame retardant), gloves), training, fume hood, glove boxes, ventilation, no exposed skin and closed toe shoes, eye washes and showers, using limited quantities.	
☐	Cuts/Penetration/Punctures	Injection of foreign material, skin damage, wounds, spills and blood hazards	Training, compatible storage (hard impenetrable materials)	
☐	Harmful Atmospheres dust/fumes/mists/vapors (e.g. animal bedding, welding fumes, silica, gasses, nanomaterials)	Allergens, metal poisoning, respiratory track irritation or damage, CNS effects	PPE, local exhaust ventilation, monitoring possible respirator use, fume hood, training	
☐	Ionizing Radiation (e.g. radioactive decay particles, X-rays)	Cellular damage, cancers	Board approval RSC, controls (time distance and shielding) training	
☐	Non-Ionizing Radiation (e.g. lasers, UV, infrared	Cellular damage especially to eyes or skin, burns	Training, curtains, access control, laser specific safety glasses or UV face shields	
☐	Mechanical Hazards (e.g. crush/pinch points, moving equipment, impacts)	Injury, dismemberment, loss of digits or limb	Mechanical guards, training, work practices	
☐	Noise	Hearing damage, loss of communicative ability	PPE, engineering controls (shielding, mufflers), work practices, monitoring, training	
☐	Pressure Hazards (e.g. compressed gas usage, rotovaps, air lines)	Uncontrolled release, breakage, cuts	Mechanical guards, training, work practices	
☐	*Acutely toxic materials (e.g. P-list material, select agents, poison gasses, controlled substances) See links below	Environmental Release, sever injury, death	Institutional approval, training, PPE, tracking/inventory, storage	
☐	Thermal Hazards (e.g. oil baths, cryogenic gasses, autoclaves)	Frostbite, burns	Training, PPE (face shields, insulating gloves, shoes), work practices, ventilation	

* University of Oregon controlled substances webpage https://safety.uoregon.edu/controlled-substances
EPA P-listed waste http://www.gpo.gov/fdsys/pkg/CFR-2012-title40-vol27/xml/CFR-2012-title40-vol27-sec261-33.xml

Laboratory Safety Standard Operating Procedure (SOP) Template

(for the use of hazardous materials or equipment)

NAME OF PROCEDURE:

PREPARED BY: **REVISION DATE:**

LOCATION – This procedure may be performed at the following location(s):

HAZARDS – The materials and equipment associated with this procedure present the following exposure or physical health hazards. Safety precautions are prudent and mandatory:

ENGINEERING CONTROLS – Prior to performing this procedure, the following safety equipment or device features must be available and ready for use (e.g., chemical fume hood, glove box, gas cabinet, pressure-relief valve, automatic shut-off, intrinsically safe hot plate)**:**

ADMINISTRATIVE CONTROLS – This procedure requires the following training (e.g., pyrophorics handling, corrosive gas techniques)**, techniques** (e.g., use spatula when weighing powder, warm cryogenically cooled material in stages)**, work practices** (e.g., attended operation only, working alone prohibited, notify lab occupants)**, and warning devices** (e.g., toxic gas detection, smoke detectors)**:**

PROTECTIVE EQUIPMENT – Prior to performing this procedure, the following personal protective equipment must be worn and kept available (e.g., safety eyewear, acid resistant gloves, lab coat, chemical splash apron, closed toed shoes, long pants)**:**

See PPE Selection Worksheet for more detailed information.

WASTE DISPOSAL – This procedure will result in the following regulated waste that must be disposed of in compliance with environmental regulations:

ACCIDENTAL SPILL – In the event of hazardous material spill during this procedure, be prepared to execute the following emergency procedure:

PRIOR APPROVAL – This procedure is considered hazardous enough to warrant prior approval from the Principal Investigator.

YES ☐ **NO** ☐

CERTIFICATION – I have read and understand the above SOP. I agree to contact my Supervisor or Lab Manager if I plan to modify this procedure.

Signature	Name (Print)	Date	Building & Room #

Personal Protective Equipment (PPE) Selection Worksheet

(to be completed and included with Laboratory Safety SOP)

Title:_____ Date:_____

Department:_____ Supervisor:_____

Location:_____ Analysis By:_____

Employee Name(s):_____ Signature:_____

Tasks	Hazards	Required PPE

NOTE: For glove selection for a particular hazard, please refer to the specific glove manufacturer's selection chart.