



The following checklist provides an overview of lab activities with associated potential hazards and generic recommendations for PPE. Describe the specific PPE your lab uses for each hazardous activity performed in your lab.

| <b>CHEMICAL HAZARDS</b>  |  |   |   |
|--|--|---|---|
| <b>Minimum PPE: Lab coat, long pants or equivalent, safety glasses, closed-toed shoes, disposable 4-mil nitrile gloves or appropriate chemical resistant gloves<sup>4</sup>. Operations may need to be performed inside a fume hood.</b> |  |   |   |
| (X)<br>If<br>applies   | Activity<br>(Modify to fit your needs)   | Potential Hazard  | Check PPE Selected  |
|  | Working with highly diluted (<1%) organic solvents, corrosives or flammable organic compounds.   | Irritant.   | <input type="checkbox"/> Safety glasses or goggles where splashing may occur.   |
|  | Working with any amount of undiluted corrosives (acids, bases).  | Skin or eye damage  | <input type="checkbox"/> Safety goggles w/ face shield where splashing may occur.<br><input type="checkbox"/> Chemical resistant gloves.  |
|  | Working with smaller volumes (<1L) of organic solvents or flammable organic compounds.   | Potential respiratory, skin, or eye damage; potential poisoning through skin contact.       | <input type="checkbox"/> Use safety glasses or goggles. Use face shield where splashing may occur.<br><input type="checkbox"/> Chemical resistant gloves.   |
|  | Working with larger volumes ( $\geq 1L$ ) of organic solvents or flammable compounds, work which creates a splash hazard. <sup>1</sup> | Potential respiratory, skin, or eye damage; potential poisoning through skin contact. Fire. | <input type="checkbox"/> Safety goggles w/ face shield.<br><input type="checkbox"/> Use 15-mil thick non-disposable chemical-resistant gloves <sup>4</sup> (nitrile).<br><input type="checkbox"/> Flame-resistant lab coat, if flammable. |
|  | Working with small quantity of toxic or hazardous chemicals (solid, liquid, or gas). <sup>1,2</sup>                                    | Potential respiratory, skin, or eye damage; potential poisoning through skin contact.       | <input type="checkbox"/> Safety glasses/ goggles<br><input type="checkbox"/> Light chemical-resistant gloves <sup>4</sup><br><input type="checkbox"/> Refer to lab SOP/protocols.   |

Working with an apparatus with contents under pressure or vacuum \_\_\_\_\_ (mm)

### CHEMICAL HAZARDS

**Minimum PPE: Lab coat, long pants or equivalent, safety glasses, closed-toed shoes, disposable 4-mil nitrile gloves or appropriate chemical resistant gloves<sup>4</sup>. Operations may need to be performed inside a fume hood.**

| (X)<br>If<br>applies | Activity<br>(Modify to fit your needs)              | Potential Hazard   | Check PPE Selected  |
|----------------------|---|--|---|
|                      | Working with air or water reactive chemicals.       | May give off toxic gases, heat, and energy. Potential inhalation, skin and eye damage. Fire. | <input type="checkbox"/> Work in inert atmosphere or inside glove box, where possible.<br><input type="checkbox"/> Goggles w/ face shield.<br><input type="checkbox"/> Chemical-resistant gloves <sup>4</sup> .<br><input type="checkbox"/> Flame retardant lab coat.<br><input type="checkbox"/> Blast shield.<br><input type="checkbox"/> Refer to SOP. |
|                      | Working with pyrophoric materials.                  | Fire. Potential inhalation, skin and eye damage. Severe burns.                               | <input type="checkbox"/> Work in inert atmosphere or inside glove box.<br><input type="checkbox"/> Goggles w/ face shield.<br><input type="checkbox"/> Flame retardant lab coat and gloves with inner chemical-resistant gloves.<br><input type="checkbox"/> Wear non-synthetic clothing.<br><input type="checkbox"/> Refer to SOP.                       |
|                      | Working with potentially explosive chemicals.       | Detonation, flying debris, skin and eye damage. Fire.  | <input type="checkbox"/> Safety goggles w/ face shield and blast shield.<br><input type="checkbox"/> Chemical resistant gloves.<br><input type="checkbox"/> Flame retardant lab coat.<br><input type="checkbox"/> Refer to SOP.   |
|                      | Working with high temperature equipment or objects. | Burns, fire.   | <input type="checkbox"/> Safety glasses.<br><input type="checkbox"/> Thermal insulated gloves.  |
|                      | Working with cryogenic material.                    | Burns, frostbite, eye damage.  | <input type="checkbox"/> Safety glasses w/ face shield.<br><input type="checkbox"/> Thermal insulated gloves.   |
|                      | Minor chemical spill cleanup.                       | Potential skin, eye, respiratory damage.   | <input type="checkbox"/> Safety glasses or goggles.<br><input type="checkbox"/> Chemical-resistant gloves <sup>4</sup> .<br><input type="checkbox"/> Chemical-resistant apron.<br><input type="checkbox"/> Refer to SOP for additional PPE requirements.<br><input type="checkbox"/> Contact EH&S for consultation.                                       |

### CHEMICAL HAZARDS

**Minimum PPE: Lab coat, long pants or equivalent, safety glasses, closed-toed shoes, disposable 4-mil nitrile gloves or appropriate chemical resistant gloves<sup>4</sup>. Operations may need to be performed inside a fume hood.**

| <b>(X)<br/>If<br/>applies</b> | <b>Activity<br/>(Modify to fit your needs)</b> | <b>Potential Hazard</b>                | <b>Check PPE Selected</b>   |
|-------------------------------|--|--|---|
|                               | Large chemical spill                           | Skin or eye damage, respiratory damage | <input type="checkbox"/> Call Safety & Security at ext. 777.<br><input type="checkbox"/> Report all injuries and fires.<br><input type="checkbox"/> Call EH&S for assistance. |



## PHYSICAL HAZARDS

Minimum PPE: Lab coat, long pants or equivalent, safety glasses,

**BIOLOGICAL HAZARDS<sup>6</sup>**

**Minimum PPE: Lab coat, closed-toed shoes, disposable 4-mil nitrile gloves.**

| If applies | Activity<br>(Modify to fit your needs) | Potential Hazard |  |
|------------|--|------------------|--|
|------------|--|------------------|--|

### **Additional Guidance**

1. When materials have a potential for becoming airborne, use a chemical fume hood or other engineering control whenever possible.



b. While discussing lab activities and the associated hazards with lab staff, the supervisor will address how their lab obtains