

## Hazard Assessment and Controls Form

<b>Laboratory Building and Room #:</b>
<b>Department/College:</b>
<b>Completed by (print name and title):</b>
<b>Principle Investigator (print name):</b>
<b>Department Head (print name):</b>

### Instructions:

Review the Hazard Description (column 3) of each Exposure Condition (column 2) and check the ones that are present (column 1). For every condition present, review the Examples of Engineering Controls and Personal Protective Equipment (column 4) and then complete the Specific Engineering Controls and PPE (column 5) that you intend to use to reduce or eliminate the hazard. Use the information to write a standard operating procedure for each process that involves a hazardous process or chemical.

Check if Present	Exposure Condition	Hazard Description	Examples of Controls and Countermeasures	Specific Engineering Controls and Personal Protective Equipment (PPE)	Training Required <i>(If PPE is indicated as a control measure, PPE training certifications are required)</i>
<b>Chemical Hazards</b>					
	Chemicals, low hazard with low splash probability	Skin and eye irritation	Safety glasses, chemical resistant gloves, lab coat, closed shoe of good structure, long pants; Be aware of the nearest eyewash and shower		Hazard Communication General Lab Safety
	Compressed gases	Asphyxiation, accidental tip over, content release, and pinch points	Gas cylinders must be secured to stationary objects in a safe location away from danger or impact; Safety glasses and gloves		Hazard Communication General Lab Safety
	Corrosive liquids w/reasonable probability of splash	Skin and eye damage	Chemical splash goggles and face shield, neoprene gloves, lab coat, closed shoes, chemical resistant apron; Be aware of the nearest eyewash and shower		Hazard Communication General Lab Safety
	Cryogenic liquids, ultra-cold freezers, dry ice	Aphyxiation, skin, eye and tissue damage, frostbite	Ventilation, safety glasses, goggles and face shields for splash hazards, insulated gloves, closed shoes		Hazard Communication General Lab Safety
	Organic solvents	Skin/eye damage, absorption through skin, organ damage	Chemical splash goggles and face shield, heavy resistant gloves, lab coat, long pants, closed shoes, chemical resistant apron, eyewash and shower		Hazard Communication General Lab Safety

Check if Present	Exposure Condition	Hazard Description	Examples of Controls and Countermeasures	Specific Engineering Controls and Personal Protective Equipment (PPE)	Training Required (If PPE is indicated as a control measure, PPE training certifications are required)
	Volatile hazardous or highly hazardous chemicals	Inhalation of toxic vapors, skin contact	Fume hood, glove box, safety glasses, lab coat, long pants, closed shoes, and gloves, respiratory protection		Hazard Communication General Lab Safety Respiratory Protection
	Pyrophorics	Spontaneously ignite in air at temperatures near 130°F (54°C). Extremely reactive to oxygen and moisture	Emergency eyewash station, an emergency shower, and a class C fire extinguisher; inert atmosphere glove box		Hazard Communication General Lab Safety
	Chemical Hazardous Wastes	Exposure, environmental release	Safety glasses, gloves, lab coats, proper storage and disposal procedures; Training and safe handling procedures		Hazard Communication Hazardous Waste
	Special cleaning agents	Exposure, allergies	Material Safety Data Sheets, hazard communication training, proper procedures, gloves, safety glasses/goggles		Hazard Communication General Lab Safety
	Particularly Hazardous Substances	Poisons, neurotoxins, teratogens, mutagens, carcinogens	Procedures, gloves, safety glasses, lab coats, storage, and disposal		Hazard Communication General Lab Safety Lab Standard
	Washing glassware	Skin lacerations from broken glass, acid or base exposure	Chemical Splash Goggles, Face Shields, rubber gloves, lab coat.		Hazard Communication General Lab Safety
<b>Physical Hazards</b>					
	Pressure Release	Injury from sudden release of energy from valves, compression chambers	Energy control, safety glasses, shields, body position		High Pressure Safety Training (recommended)
	Confined Spaces	Exposure, falls, dangerous atmospheres, asphyxiation, noise, vibration	Buddy system, lanyards, ventilation, monitoring		Confined Space
	Elevated heights	Fall injury	Lanyards, anchors		Fall Protection
	Energized Equipment	Pinch, crush, caught, pulled in, electrocution	Energy control, signage, guards, no jewelry, tie back long hair		Lock Out Tag Out
	Extreme Environmental Conditions	Hypothermia (cold), frostbite (cold), heat exhaustion (heat) or heat stroke.	Training, physiological monitoring. Rest cycles and fluid replacement		General Lab Safety
	Impact	Injury to head or body	Hard hat, impact resistant toed shoes, body position		
	Manipulation of large objects	Injury, death	Proper lifting equipment, procedures, inspections, buddy system		Ergonomics (recommended)

Check if Present	Exposure Condition	Hazard Description	Examples of Controls and Countermeasures	Specific Engineering Controls and Personal Protective Equipment (PPE)	Training Required <i>(If PPE is indicated as a control measure, PPE training certifications are required)</i>
	Material Handling	Physical injury, strains, sprains	Buddy system, gloves, standard operating procedures		Ergonomics (recommended)
	Noise	Deafness, hearing damage, inability to communicate	Noise monitoring and engineering controls (e.g., enclosures, baffles, mufflers), ear plugs, ear muffs, etc.		Hearing Conservation
	Penetration	Injection, wounds	Signage, body position, proper technique, gloves		General Lab Safety
	Respirable Dust	Lung damage	Local exhaust ventilation, monitoring, proper technique, respirator		General Lab Safety Respiratory Protection
	Vibrating Equipment	Cumulative trauma disorders.	Gloves, protective shoes, hearing protection		Ergonomics (recommended)

**Additional Comments:**

**Certification:** I certify this hazard assessment was conducted according to University Policy and the signatures below indicate acknowledgement.

Completed by (print): \_\_\_\_\_ Date: \_\_\_\_\_

Completed by(signature): \_\_\_\_\_

Principle Investigator (print): \_\_\_\_\_ Date: \_\_\_\_\_

Principle Investigator (signature): \_\_\_\_\_