

BUILDING	DATE (UPDATE ANNUALLY)	<b>IN CASE OF EMERGENCY</b>	
		FIRE: Pull fire alarm, do not use elevators, evacuate building, stay 500 feet away	
LAB ROOM NUMBER	DEPARTMENT	HAZARDOUS GASES: Inform others to evacuate the area; close doors; call <b>8-1911</b>	
		HAZARDOUS MATERIALS SPILL: If in doubt, get out and call <b>8-1911</b>	
PRINCIPAL INVESTIGATOR	OFFICE & HOME PHONE NUMBERS	HAZARDOUS MATERIALS SPILL: (small) call MU Safety for assistance ( <b>288-6800</b> )	
		MAJOR MEDICAL EMERGENCY: If trained, begin first aid; call <b>8-1911</b>	
LAB MANAGER OR ALT. CONTACT	OFFICE & HOME PHONE NUMBERS	NATURAL DISASTER: Monitor news broadcast and seek shelter in interior hallways	
		INJURIES: Call <b>8-1911</b> , provide dispatch with your location (room number & building)	
EMERGENCY COORDINATOR	OFFICE & HOME PHONE NUMBERS	Student Health Services: <b>288-7184</b>	MU Public Safety Department: <b>288-6800</b>
		Poison Control Center: <b>800-222-1222</b>	Ambulance/Fire/Police/Spill: <b>8-1911</b>

Biological Materials				Radiological Hazard	Emergency Equipment
Type of Agent	Low BSL-1	Medium BSL-2	High BSL-3	<input type="checkbox"/> IRRADIATOR	<input type="checkbox"/> SAFETY SHOWER LOCATED WITHIN 10 SECONDS OF TRAVEL
Human Pathogen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> SEALED SOURCE	<input type="checkbox"/> EYE WASH LOCATED WITHIN 10 SECONDS OF TRAVEL
Animal Pathogen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> RADIOACTIVE MATERIAL	<input type="checkbox"/> FIRE EXTINGUISHER LOCATED WITHIN 75 FEET OF TRAVEL
Plant Pathogen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> RADIOACTIVE WASTE	<input type="checkbox"/> FIRST AID KIT LOCATED WITHIN LABORATORY
Not Infectious	<input type="checkbox"/>	NA	NA	<input type="checkbox"/> LASER	<input type="checkbox"/> SPILL KIT LOCATED WITHIN LABORATORY
				<input type="checkbox"/> OTHER:	<input type="checkbox"/> OTHER:

CHEMICAL HAZARDS <small>(see back for examples)</small>	RECOMMENDED USE/STORAGE LIMIT	TOTAL MATERIALS USED/STORED IN LAB; INCLUDE LOCATION AND CHEMICAL IDENTITY
COMPRESSED GASES (CLASS 2)		
<input type="checkbox"/> FLAMMABLE	2 - 5 FOOT CYLINDERS (MAX)	
<input type="checkbox"/> NON - FLAMMABLE	4 - 5 FOOT CYLINDERS	
<input type="checkbox"/> POISONOUS	2 - 15 INCH LECTURE BOTTLES (MAX)	
FLAMMABLE LIQUIDS (CLASS 3)	5 GALLONS BENCH/10 GALLONS SAFETY CANS	
FLAMMABLE LIQUIDS (CLASS 3)	60 GALLONS IN STORAGE CABINET	
REACTIVES (CLASS 4)		
<input type="checkbox"/> FLAMMABLE SOLIDS	1 KILOGRAM	
<input type="checkbox"/> SPONTANEOUSLY		
COMBUSTIBLE	2 KILOGRAMS	
<input type="checkbox"/> DANGEROUS WHEN WET	2 KILOGRAMS	
REDUCERS (CLASS 5)		
<input type="checkbox"/> OXIDIZERS	5 KILOGRAMS	
<input type="checkbox"/> ORGANIC PEROXIDES	1 KILOGRAM	
TOXIC (CLASS 6)	2 KILOGRAMS	
CORROSIVE MATERIAL (CLASS 8)		
<input type="checkbox"/> ACID	5 GALLONS	
<input type="checkbox"/> BASE	5 GALLONS	

Complete and post next to your laboratory door and provide a copy to Facility Manager.

## EXAMPLES OF CHEMICAL HAZARDS

### COMPRESSED GASES (CLASS 2)

- Flammable: Acetylene, carbon monoxide, ethane, ethylene, hydrogen, methane
- Oxidizing: Oxygen, ozone, oxides of nitrogen, chlorine, fluorine (chlorine and fluorine reacts with flammables similarly to that of oxygen)
- Corrosive: Ammonia, hydrogen chloride
- Highly Toxic: Arsine, cyanogen, fluorine, germane, hydrogen cyanide, nitric oxide, phosphine, hydrogen selenide
- Inert: Argon, helium, krypton, neon, nitrogen, xenon
- Pyrophoric: Diborane, dichloroborane, phosphine, silane
- Unstable: Butadiene, ethylene oxide, vinyl chloride, methyl acetylene

### FLAMMABLE &, COMBUSTIBLE (CLASS 3)

#### **Flammables:**

- Class IA liquids: Flash Point <73°F (23°C) and Boiling Point at or below 100°F (38°C)
- Class IB liquids: Flash Point <73°F (23°C) and Boiling Point at or above 100°F (38°C)
- Class IC liquids: Flash Point at or above 73°F (23°C) and below 100°F (38°C)

#### **Combustibles:**

- Class II liquids: Flash points at or above 100°F (38°C) and below 140°F (60°C)
- Class IIIA liquids: Flash point at or about 140°F (60°C) and below 200°F (93°C)
- Class IIIB liquids: Flash point at or above 200°F (93°C)

### REACTIVES (CLASS 4)

#### **Flammable solids**

- Organic Solids: Camphor, Cellulose Nitrate, Naphthalene
- Inorganic Solids: Decaborane, Lithium Amide, Phosphorus Heptasulfide, Phosphorus sesquisulfide, Potassium Sulfide, Anhydrous Sodium Sulfide, Sulfur
- Combustible Metals: (Except Dusts and Powders) Cesium, Magnesium, Zirconium

#### **Water-reactive material**

- Aluminum alkyls, bromine pentafluoride, bromine trifluoride, chlorodiethylaluminum, diethylzinc, calcium carbide, calcium metal, lithium hydride, methylchlorosilane, potassium metal, potassium peroxide, sodium metal, sodium peroxide, sulfuric acid, trichlorosilane, acetyl chloride, sodium hydroxide, chlorosulfonic acid and titanium tetrachloride

#### **Unstable materials**

- Acetyl peroxide, dibutyl peroxide, dinitrobenzene, ethyl nitrate, peroxyacetic acid, picric acid, hydrogen peroxide (>52%), hydroxylamine, nitromethane, paranitroaniline, perchloric acid, tetrafluoroethylene monomer, acrolein, acrylic acid, hydrazine, methacrylic acid, sodium perchlorate, styrene, vinyl acetate, acetic acid, hydrogen peroxide (35-52%), paraldehyde, tetrahydrofuran

### REDUCERS (CLASS 5)

#### **Oxidizers**

- Gases: Oxygen, Ozone, Oxides of Nitrogen, Fluorine, Chlorine
- Liquids: Hydrogen Peroxide, Nitric Acid, Perchloric Acid
- Solids: Chlorates, Chromates, Chromium trioxide, Iodine, Nitrates, Nitrites, Perchlorates, Peroxides

#### **Organic Peroxides**

- Dibenzoyl peroxide, butanone peroxide, acetyl peroxide, diacetyl peroxide, butyl peroxide
- Organic Peroxides contain a double oxygen or peroxy (-O-O) group. Some are prone to explosive decomposition.

### TOXIC (CLASS 6)

#### **Highly toxic material**

- Gases: Arsine, cyanogen, diborane, fluorine, germane, hydrogen cyanide, nitric oxide, nitrogen dioxide, ozone, phosphine, hydrogen selenide, stibine.
- Liquids: Acrolein, 2-chloroethanol, hydrazine, hydrocyanic acid, 2-methylaziridine, acrylonitrile, methyl isocyanate, nicotine, tetranitromethane, tetraethylstannane
- Solids: Phenyl mercury, 4-aminopyridine, arsenic pentoxide, arsenic trioxide, calcium cyanide, 2-chloroacetophenone, aflatoxin 8, decaborane(14), mercury II bromide, mercury II chloride, pentachlorophenol, methyl parathion, white phosphorus, sodium azide

#### **Toxic material**

- Gases: Boron trichloride, boron trifluoride, chlorine, chlorine trifluoride, hydrogen fluoride, hydrogen sulfide, phosgene, silicon tetrafluoride
- Liquids: Acrylonitrile, allyl alcohol, alpha-chlorotoluene, aniline, l-chloro-2, 3-epoxypropane, ethyl chloroformate, 3-chloropropene, o-cresol, furfuryl alcohol
- Solids: Acrylamide, barium chloride, barium nitrate, benzidine, p-benzoquinone, beryllium chloride, cadmium chloride, cadmium oxide, chloroacetic acid, chlorophenylmercury, chromium (VI) oxide, potassium fluoride, potassium hydroxide, selenium (IV) disulfide, sodium fluoride

### CORROSIVE (CLASS 8)

- Acids: Chromic, formic, hydrochloric (>15%), hydrofluoric, nitric, perchloric, sulfuric
- Bases: Ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide, potassium carbonate . Others: Bromine, chlorine, fluorine, iodine, ammonia