

SAFETY PROCEDURES

BIOLOGY DEPT.

CHEMICAL INVENTORY:

- 1. safe storage of chemicals, stored according to category and separate from each other.**
- 2. date rec'd. noted on bottle, and date bottle is opened**
- 3. computerized inventory kept which also notes MSDS expiry date and storage area**
- 4. if inadequate safety label on bottle, then we make a better label (WHMIS)**
- 5. up-to-date MSDS kept for each chemical, or properly noted "substitute" MSDS**
- 6. minimum quantities of hazardous chemicals kept in public areas, rest is safely stored in appropriate room**
- 7. all solutions prepared by us must be properly labelled**
- 8. safe disposal of chemical, either by us or by hazardous waste pick-up**

EYE PROTECTION:

- 1. contact lens contract form in each lab manual, student must fill out and hand in to lab instructor so instructor is aware of which students wear contact lenses.**
- 2. safety glasses always available for students**
- 3. students advised when glasses are necessary**
- 4. eye wash station in each lab – the stations are maintained by Facilities Services**
- 5. use of fume hoods advised for hazardous chemicals and face shield available for technicians**
- 6. students take a safety tour and quiz at beginning of each Biology lab course**

HAZARDOUS CHEMICALS:

- 1. properly labelled with safe handling procedures & required P.P.E.**
- 2. MSDS available (up-to-date), and easily accessible**
- 3. stored according to chemical category**
- 4. minimum amounts kept out and used, rest kept in appropriate storage area**

5. appropriate P.P.E. available when using chemicals: lab coat, plastic apron, safety glasses, face shield, chemical gas mask, and appropriate gloves
6. testing for peroxides carried out and records kept on any peroxide-forming chemicals. Such chemicals are disposed of 6 months after opening.
6. Spill Cart available with appropriate supplies and clean-up procedure clearly written down for different categories of chemicals
7. where-ever possible, we substitute lab requirements so less hazardous chemicals can be used
8. Disposal of specimens preserved with formaldehyde must not be in a land-fill site, but specimens must be cremated at an approved facility

LAB SAFETY:

1. students watch a video, discuss safety, take a safety tour of lab and write a safety quiz at the beginning of each lab course
2. technicians should have WHMIS training and should get updated/refresher with safety courses such as the Biohazardous Waste course and the UBC lab chemical safety course
3. Students supplied with safety goggles and lab coats if necessary but encouraged to supply their own
4. Technicians and faculty should be aware of safe handling procedures for department equipment and students should be instructed in the safe use of equipment
5. Equipment should be inspected and properly maintained – eg. Electrical cords on hot plates, fume hoods and Biology safety cabinet tested yearly
6. Technicians and faculty instructed on use and where-about of gas shut-off keys and “buttons”
7. safety showers tested monthly for temperature, function and cleanliness of water
8. safety equipment in each lab should be: eye wash bottles or stations, shower, fire extinguisher, flame blanket, fume hood
9. “Panic button”: technicians are supplied with a panic button because they work in an area with many hazards and at times of the year they are very isolated. They should also have a cordless phone which they can carry with them into the different labs
10. Safe disposal of sharps and glass is required to avoid injury to custodial staff

MICROBIOLOGY:

- 1. Biology Dept. is considered a level two containment facility and must fulfill requirements to maintain this rating; in the safe use, storage and disposal of bio-hazardous and pathogenic material**
- 2. Autoclave must be monitored for proper functioning to ensure any bio-hazardous or pathogenic material are sterilized before disposal**
- 3. Room 3-205 is maintained primarily for micro-biology courses and use by other classes is not encouraged**
- 4. Students should supply their own lab coat and this lab coat is not to be removed from the room 3-205 for use in any other lab on campus**

SPILL CART:

- 1. properly supplied and maintained spill cart kept in Dept.**
- 2. Manual containing safe spill clean-up procedures kept with cart: deals with acids, bases, Biohazardous material, flammables, mercury and formaldehyde, and cart inventory**

LOCKOUT:

- 1. Lock-out procedure involves being able to turn off the gas to a specific lab, or to the entire department, knowledge of key location and locks, and button in corridor**
- 2. when using ultra-violet lights in Biology safety cabinet – room 3-205, the entire room should be locked-out and eye protection used for staff**
- 3. Biology technicians should be notified by Facilities Services whenever water is shut off to the department or campus, due to expensive and delicate equipment that may be in use at the time**
- 4. when water is being run into sinks over-night or over a weekend, Biology technicians should notify Security so labs can be checked for leaks/floods on a regular basis**
- 5. during summer holidays when no staff are present, a schedule should be set up with Facilities Services/Security so that Cold Room and fridges/freezers are checked regularly**