Fact Sheet

OSU ENVIRONMENTAL HEALTH & SAFETY

Safety Instruction

Spill Response - Biohazards

A biohazardous spill is an unintended release of a potentially infectious material (including body fluids such as blood, tissues or organs, and stock cultures). Proper response to such incidents ensures employee and student safety while reducing environmental contamination concerns. Proper response includes assuring that spill materials are available for use and verifying that all personnel understand and can implement the requirements of the spill response procedures indicated below.

If a spill occurs and the appropriate spill materials are not available, contact Public Safety Dispatch at 541-737-7000; they will contact EH&S as necessary. Refer to the following sections for recommended response protocols and equipment.

Biohazard Spill Kits

Each area should have sufficient spill cleanup materials available to respond to the largest anticipated spill. In lab environments, this may be addressed by one centrally located kit for a department or group of labs. If a centralized kit is used, a person may be designated to take a regular inventory of the spill kit materials and order replacements as needed. A biohazardous spill kit should include the following items:

- Gloves: nitrile or latex (multiple pairs & sizes recommended)
- Safety goggles (face shield strongly recommended)
- Protective gown (i.e. lab coat) to protect clothing
- Disposable shoe covers
- Absorbent materials (e.g. paper towels)
- **Concentrated household bleach (<1 years old) or other suitable disinfectant listed on EPA List E http://www.epa.gov/oppad001/list_e_mycobact_hiv_hepatitis.pdf
- Spray bottle for making 10% bleach solution or acceptable disinfectant
- Autoclavable bags, biohazard bags and/or biohazard tags
- Twist ties
- Tongs or forceps for picking up any sharps or broken glass (if applicable)
- Plastic scoops or cardboard for mechanical scooping
- Copy of biohazard spill response procedures

Spill Response Procedures

Low Risk Spills

The following protocol is for low risk biohazard spills of low risk materials such as microbiological cultures of known origin and risk and for spills of blood or body fluids.

1. Notify others working in the area of the hazard present and put up signage (e.g. “Biohazard Spill – Do not Enter”) if necessary. Notify your supervisor or Principal Investigator so that he or she may supervise and/or assist with the spill response if needed.

   Note: If your clothing or skin comes in contact with the spilled material, take appropriate action before proceeding with cleanup. Remove contaminated clothing articles and place them in a designated biohazard bag for decontamination. Thoroughly wash an area of your skin that may have been in contact with the spilled material with soap and water for about 5 minutes.

1. Wear gloves, eye protection, and a protective lab coat as minimum personal protective equipment (PPE). Replace PPE that is damaged or becomes contaminated before proceeding with cleanup.
2. If applicable, use tongs or forceps to pick up any contaminated sharp items (syringes, broken glass, etc.) and place them in the sharps container for disposal.
3. Put an absorbent material, such as a paper towel, over the spill.

4. Isolate the spilled material starting with the outer edges of the towel and working into the center of the spill. Soak the area with 10% household bleach solution (prepared as needed for maximum effectiveness). ***Note:* An EPA registered disinfectant can be used as a substitute to bleach (see spill kit materials).
5. Allow the treated towels to stand a minimum of 5 minutes. Then, collect the treated towels using scoops or other mechanical method and place them in the biohazard bag for disposal.
6. Wipe down the entire spill, including articles in close proximity that may not be visibly contaminated, with clean towels and more bleach/disinfectant solution. Allow to air dry.
7. Place reusable spill response items in the autoclave (biohazard) bag; sterilize items prior to further processing for reuse, if items can tolerate heat of the autoclave; if not, soak in disinfectant for >10 minutes then clean before reuse.
8. Place all disposable PPE and cleaning materials in another biohazard bag to be treated and disposed of. Autoclave the bag and enclose the treated waste in a regular trash bag prior to disposal.
9. If any assistance is needed, call Public Safety Dispatch at 541-737-7000

Spills Outside the Laboratory in Public Spaces

Samples must be transported in secondary, leak proof containers to minimize the potential for spills. However, if a spill does occur in a common hallway or public space and cannot be immediately decontaminated, cordon off the area, restrict access, and contact Public Dispatch Safety at 541-737-7000. Be sure to stay at the spill location until help arrives.

Combined Hazard Spill (Radioactivity, Carcinogen)

In laboratories, a spill of potentially infectious material may also have other hazardous characteristics. A common additional hazard is radioactivity due to the widespread use of isotopes markers.

1. Evacuate the area and notify the EH&S at 541-737-2273 or Public Safety Dispatch for response. Do NOT initiate any cleanup activities on your own before radiation safety personnel have arrived.
2. Radiation safety personnel will survey the affected area to determine the appropriate method of treatment and disposal of the spill materials. Be prepared to assist responders if needed.
3. Following spill response activities, radiation safety responders will again survey the area to verify that radiation decontamination has been achieved. Make sure that all unnecessary personnel stay out of the area until the responders have determined that it is safe to reenter.

**** Chemical Disinfectants**

When using a chemical disinfectant, remember that you are using a potentially toxic chemical that could be corrosive, flammable, an irritant, and or potentially a carcinogen. Disinfectants must be used according to the product label and be sure to wear the personal protective equipment (PPE) as indicated on the product label and Safety Data Sheet.