

# OH&S Biosafety Emergency Response Procedures

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## Package Leaks

### Leaks or Evidence of Leaks

1. Examine the outer packaging for leaks or evidence of leaks
2. Contain package
3. Notify UAB Biosafety at (205) 934-2487
4. Notify sender

### No Evidence of Leaks

1. Examine the outer packaging, and you find no evidence of leaks
2. Examine inner packaging and contents in Biosafety Cabinet (BSC). If there is a leak:
  - a. Notify sender
  - b. Notify UAB Biosafety at (205) 934-2487
    - i. Category A or Select Agent: Biosafety responds and reports to CDC
    - ii. Category B: Follow spill clean-up procedure

## Spill Clean-Up Procedure

### Basic Biosafety Spill Kit

Store all of these items in a five-gallon bucket with a lid. The bucket also serves as a container for the waste generated by the clean-up. The bucket should be labeled indicating it's a spill kit. A basic spill kit should include the following items:

1. Latex or surgical gloves
2. Safety glasses, goggles, face shield, and mask
3. Disposable lab coats
4. Aprons or gown
5. Absorbent material (paper towels, spill booms or pillows, vermiculite)
6. Small disposable plastic broom, dustpan, tongs, or forceps
7. Ziploc and biohazard bags
8. Small bottle of detergent cleaning solution
9. Disinfectant appropriate for the agent used in the lab

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10. Shoe covers
11. Biohazard Stickers
12. Copy of spill clean-up plan

Performing a careful risk analysis of the biological hazards found in your laboratory may require additional items not found on the list. For information, contact UAB OH&S at (204) 934-2487.

## Spill Clean-Up Procedure

1. Don the appropriate PPE. The appropriate could include gloves, lab coat, face shield, goggles, dust mask, HEPA mask, etc. Think exposure routes and protect yourself accordingly.
  - a. you should clear the area and warn others if the spilled material is transmitted via inhalation, Wait 30 minutes and enter the area. By waiting 30 minutes, this allows aerosols to settle or be captured by building exhaust. Keep in mind that if a liquid of fine powder has spilled, aerosolization has taken place.
2. Assess the spill
  - a. What's spilled?
  - b. Liquid or solid?
    - i. If a liquid, does it have a high vapor pressure – will it evaporate quickly?
  - c. Infectious or non-infectious?
  - d. Concentrated or non-concentrated?
  - e. Waste-based?
  - f. Is it toxic?
  - g. Is it corrosive?
  - h. Was the aerosol in containment?
  - i. In a BSC or fume hood? Category A substances are more potent. Follow your SOP!
  - j. Was it large or small? One would want to make sure the spill did not spread and contaminate other areas.

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3. Disinfect the spill by covering with absorbent towels and carefully pouring a suitable disinfectant on the area. When pouring the disinfectant, you should start at the edge and spiral in toward the center of the spill. Select a disinfectant that is specific for the agent(s) used in your lab. Heavy soil load or high protein content may alter disinfectant effectiveness, and pre-cleaning may be required (as with blood spills). Proper disinfection depends on the concentration of the disinfectant and contact time. Follow the manufacturer's directions.
4. Disposal
  - a. After thoroughly disinfecting the area, you should carefully place all the materials in the proper medical waste container.
  - b. Never handle contaminated glass with hands (even gloved hands). Use tongs, dustpan, and broom, hemostats, etc. and carefully place the broken glass in an approved sharps container.
  - c. The rest of the spill cleanup waste and disposable PPE can then be placed in red bags for proper disposal as medical waste.
  - d. Carefully wash your hands with soap and water.
  - e. Report the incident to lab manager or PI as soon as possible and if warranted to OH&S as directed by lab manager or PI.
5. Spills In Biosafety Cabinet
  - a. Leave biosafety cabinet blower motor turned on during cleanup.
  - b. If necessary, flood work surface, drain pans, and catch basins below the work surface, with disinfectant appropriate for an agent.
  - c. Wipe cabinet walls, work surfaces, and inside the front view screen with disinfectant.
  - d. Lift front exhaust grill and tray, and wipe all surfaces. Ensure no paper towels or soiled debris has blown into the area below the grill.
  - e. Expose in-autoclavable materials to disinfectant for recommended contact time before removing from the biosafety cabinet.
  - f. Run biosafety cabinet 10 minutes after cleanup before resuming work or turning cabinet off.
  - g. When a spill overflows into the interior of the cabinet, more extensive decontamination of the cabinet is required. If in doubt about the procedure, contact UAB OH&S at (205) 934-2487.

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## First Aid

- Eye Contact – promptly flush eyes with water 15 minutes and seek medical attention.
- Ingestion – Encourage the victim to drink large amounts of water or call Poison Control (4-4606) and seek medical attention
- Skin Contact – Promptly and thoroughly wash the affected area with soap and water and remove any contaminated clothing.
- Complete the Accident/Injury Report and in cases of injury or suspected injury go to the Workplace or the University Hospital Emergency Department.