Spill, Decontamination and Emergency Procedures for Work with Recombinant or Synthetic Nucleic Acids, Human Material, Infectious Agents and/or Toxins

SPILL PROCEDEURES

Inside the biosafety cabinet:
1. Wear a lab coat, goggles and gloves during cleanup.
2. Allow the cabinet to run during cleanup.
3. Apply appropriate disinfectant to spill areas and allow a minimum of 20 minutes contact time.
4. Wipe up the spillage with a disposable disinfectant-soaked cloth.
5. Wipe the walls, work surface and any equipment in the cabinet with a disinfectant-soaked cloth.
6. Discard contaminated disposable materials in appropriate biohazardous waste container(s) and autoclave before discarding as infectious waste.
7. Place contaminated reusable items in biohazard bags or autoclavable pans with lids before autoclaving and cleanup. Expose non-autoclavable materials to disinfectant, 20 minute contact time, before removal from the BSC.
8. Remove protective clothing used during cleanup and place in a biohazard bag for autoclaving.
9. Wash your hands.
10. Run cabinet 10 minutes after cleanup before resuming work or turning off the cabinet.

Inside the lab, outside biosafety cabinet:
Clear area of all personnel. Wait for aerosol to settle before entering spill area. Remove any contaminated clothing and place in biohazard bag to be autoclaved. Wear a disposable gown or lab coat, goggles and gloves during cleanup. Initiate cleanup with appropriate disinfectant as follows:

1. Soak paper towels in disinfectant and place over spill.
2. Encircle the spill with additional disinfectant being careful to minimize aerosolization while assuring adequate contact.
3. Decontaminate all items within the spill area.
4. Allow 20 minutes contact time to ensure germicidal action of disinfectant.
5. Wipe equipment with 1:10 bleach followed by water than 70% alcohol.
6. Place disposable contaminated spill materials in appropriate biohazardous waste container(s) for autoclaving.
7. Place contaminated reusable items in biohazard bags, autoclavable pans with lids before autoclaving and cleanup.
8. Remove protective clothing used during cleanup and place in a biohazard bag for autoclaving.
9. Wash your hands.

Inside Centrifuge

1. Clear area of all personnel.
2. Wait 30 minutes for aerosol to settle before entering the area and attempting to clean up spill.
3. Wear a lab coat, goggles and gloves during clean up.
4. Remove rotors and buckets to nearest biological safety cabinet for cleanup.
5. Thoroughly disinfect inside of centrifuge with a fresh 10% bleach solution and paper towels.
6. Remove contaminated debris after disinfection (including paper towels), place in appropriate biohazardous waste container(s) and autoclave before disposal as infectious waste.
7. Remove protective clothing used during cleanup and place in a biohazard bag for autoclaving.
8. Wash your hands.

Outside lab, during transport
Transport biohazardous material in an unbreakable well-sealed primary container placed inside of a second unbreakable lidded container labeled with a biohazard symbol (cooler, plastic pan or pail). Should a spill occur in a public area, do not attempt to clean it up without appropriate personal protective equipment. As an interim measure, wear gloves and place paper towels, preferably soaked in disinfectant, directly on spilled materials to prevent spread.

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of contamination. To assure adequate contact, surround the spill with disinfectant, if available, taking care to minimize aerosols. Call Environmental Health and Safety at 617-373-2769 to assist in cleanup.

**Major Biological Spill**

In the event of a major biological spill (one that cannot be safely cleaned using the procedures above), clear lab of all personnel and quarantine area of spill. Ensure all windows and openings are closed before leaving the lab. Label all doors as ‘DO NOT ENTER’ to prevent personnel from entering space or releasing biohazardous material. Contact Environmental Health & Safety at 617-373-2769 or campus police at 617-373-3333 for assistance.

**DECONTAMINATION PROCEDURES**

All work areas and equipment will be decontaminated with a liquid chemical disinfectant (e.g. 10% bleach and/or 70% ethanol). The disinfectant will be applied liberally. If bleach is used, the solution will be made fresh on a daily basis using 1 part bleach in 9 parts water. The solution will be labeled as to contents and date of preparation. Equipment to be decontaminated includes, but is not limited to, bench tops, biosafety cabinets, all benchtop equipment and incubators.

**EMERGENCY PROCEDURES**

**Exposures to biohazardous materials containing recombinant or synthetic nucleic acids**

*Wash area immediately*

- **Wounds, skin and needle stick exposure**: Thoroughly scrub the area for 15 minutes with warm water and soap.
- **Eye and mucous membrane exposure**: Flush immediately at nearest eyewash station for 15 minutes.

*Seek care immediately*

- While you are treating your exposure area, have a co-worker contact campus police at 617-373-3333 for help. Campus police will triage you and get you to a medical care facility for further treatment if necessary.
- Be prepared with information for the healthcare providers. Bring information about the agent and/or animal or material involved in your injury or exposure. This information should include agent description, route of exposure, dose and concentration, and any unusual characteristics of the agent.

*Notifications*

- Notify your supervisor, PI and Environmental Health and Safety about the incident.

**CONTACT INFORMATION**

**Environmental Health and Safety**
617-373-2769  
170 Cullinane Hall

**NU Police Department**
617-373-2121 (non-emergency)  
617-373-3333 (emergency)  
716 Columbus Place

**Risk Services**
617-373-6963  
316 Columbus Place

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