ENVIRONMENTAL HEALTH & SAFETY
UNIVERSITY of WASHINGTON

BIOHAZARDOUS SPILLS

Each Principal Investigator (PI) or supervisor is responsible for developing and training staff on appropriate spill clean-up protocols for biohazardous agents in use, including recombinant or synthetic nucleic acids. Suitable disinfectants or decontaminants and personal protective equipment (PPE) must be available. You can create your own biohazard spill kit.

Post the Spill Response Poster in lab rooms. If a spill results in an exposure, follow the instructions on the Exposure Response Poster. Always ask for assistance if you need it.

Biohazardous spill inside a biological safety cabinet (BSC)

Spill inside a BSC that is confined to the work surface

1. Do not turn off the BSC during spill clean-up. Do not place your head inside the cabinet or under the sash at any time.
2. Remove any contaminated sharp items from the spill using tongs or forceps. Do not use your hands. Place contaminated items in appropriate sharps container.
3. Cover spill with paper towels or absorbent material.
4. Slowly pour an appropriate decontaminant solution around the spill and allow to flow into the spill. A freshly prepared 1:10 dilution of household bleach (~0.5% sodium hypochlorite) is suitable for most biological spills.
5. Allow 30 minutes of contact time. The contact time may vary depending on the decontaminant used. Follow manufacturer's directions.
6. Wipe up spill, work surfaces, walls, and any equipment in the BSC with paper towels dampened with decontaminant. If using bleach, follow with a water rinse to protect metal surfaces from corrosion.
7. Place contaminated paper towels and other clean-up materials in a biohazard bag.
8. Decontaminate the spill area again. Place all used spill materials in a biohazard bag.
9. Remove any contaminated PPE in a manner to avoid cross-contamination. Dispose of as biohazardous waste.
10. Wash hands thoroughly after removing gloves.

Spill inside a BSC that flows into front or rear grills

1. Do not turn off the BSC during spill clean-up. Do not place your head inside the cabinet or under the sash at any time.
2. Close the drain valve under the BSC if open.
3. Remove any contaminated sharp items from the spill using tongs or forceps. Do not use your hands. Place contaminated items in appropriate sharps container.

4. Flood the top work surface tray and drain pans and catch basin (if a Class II BSC) below the work surface with an appropriate decontaminant solution.
5. Allow 30 minutes of contact time. The contact time may vary depending on the decontaminant used. Follow manufacturer's directions.
6. Remove excess decontaminant from the work surface by wiping with a sponge or cloth. For Class II BSCs, drain the tray into the catch basin below the work surface, lift out tray and removable front intake grill, and wipe top and bottom surfaces with sponge or cloth soaked in decontaminant. Then replace and drain decontaminant from base into appropriate container, and dispose via the sewer.
7. Place contaminated paper towels and other clean-up materials in a biohazard bag.
8. Decontaminate the spill area again. Place all used spill materials in a biohazard bag.
9. Remove any contaminated PPE in a manner to avoid cross-contamination. Dispose of as biohazardous waste.
10. Wash hands thoroughly after removing gloves.

Biohazardous spill outside a biological safety cabinet (BSC)

Small spill that can easily be cleaned with one paper towel

1. If biological agent is transmitted via inhalation (e.g., adenovirus, influenza virus):
    a. Hold your breath, and leave the room immediately. Close the door. Ask other lab occupants to also exit the room. A good way to indicate a spill is inside is to drop your lab coat on the way out.
    b. Post a sign not to enter the room.
    c. Remove any contaminated PPE and place in a biohazard bag.
    d. Thoroughly wash your hands and any other exposed areas of the body.
    e. Wait 30 minutes for aerosols to dissipate.
2. Don appropriate PPE for cleaning up the spill.
3. Remove any contaminated sharp items from the spill using tongs or forceps. Do not use your hands. Place contaminated items in appropriate sharps container.
4. Cover spill with paper towels or absorbent material.
5. Slowly pour an appropriate decontaminant solution around the spill and allow to flow into the spill. A freshly prepared 1:10 dilution of household bleach (~0.5% sodium hypochlorite) is suitable for most biological spills.
6. Allow 30 minutes of contact time. The contact time may vary depending on the decontaminant used. Follow manufacturer's directions.
7. Wipe up spill and any surfaces or equipment that may have been contaminated with paper towels dampened with decontaminant. If using bleach, follow with a water rinse to protect metal surfaces from corrosion.
8. Place contaminated paper towels and other clean-up materials in a biohazard bag.
9. Decontaminate the spill area again. Place all used spill materials in a biohazard bag.
10. Remove any contaminated PPE in a manner to avoid cross-contamination. Dispose of as biohazardous waste.
11. Wash hands thoroughly after removing gloves.

Large spill that requires more than one paper towel to clean

1. Hold your breath, and leave the room immediately. Close the door. Ask other lab occupants to also exit the room. A good way to indicate a spill is to drop your lab coat on the way out.
2. Post a sign not to enter the room.
3. Remove any contaminated PPE and place in a biohazard bag.
4. Thoroughly wash your hands and any other exposed areas of the body.
5. Wait 30 minutes for aerosols to dissipate.
6. Don appropriate PPE for cleaning up the spill.
7. Remove any contaminated sharp items from the spill using tongs or forceps. Do not use your hands. Place contaminated items in appropriate sharps container.
8. Cover spill with paper towels or absorbent material.
9. Slowly pour an appropriate decontaminant solution around the spill and allow to flow into the spill. A freshly prepared 1:10 dilution of household bleach (~0.5% sodium hypochlorite) is suitable for most biological spills.
10. Allow 30 minutes of contact time. The contact time may vary depending on the decontaminant used. Follow manufacturer's directions.
11. Remove excess decontaminant by wiping with a sponge, cloth, or several paper towels. Place contaminated clean-up materials in a biohazard bag.
12. Decontaminate the spill area again. Place all used spill materials in a biohazard bag.
13. Remove any contaminated PPE in a manner to avoid cross-contamination. Dispose of as biohazardous waste.
14. Wash hands thoroughly after removing gloves.

Spills in public spaces

Transport biohazardous items in leak-proof, secondary containers to minimize the potential for spills. Use a cart if necessary. If a spill does occur in a hallway or public space, cordon off the area, restrict access, and decontaminate the spill as described above. If the spill cannot be immediately decontaminated, contact EH&S Biosafety at 206.221.7770.

Radioactive biohazardous spill

If working with both radioactive and biohazardous materials, develop an appropriate spill clean-up plan. Bleach may be incompatible with some radioactive materials, especially if they contain radioiodine. Contact Radiation Safety at 206.543.0463 for additional information.

Questions?

Contact an EH&S biosafety officer for assistance at ehsbio@uw.edu or 206.221.7770.