

University of Maryland Baltimore County

SPILL RESPONSE FOR LABORATORY PERSONNEL

In an emergency, dial 5-5555

For assistance from ESH, call 5-2918

There are various actions that laboratory personnel can take in the event of a laboratory spill. The laboratory worker may be able to respond to a small contained lab spill. Laboratory workers should never put themselves in harms way. If there is any doubt about the safety of the individual in the lab, immediately call the police at ext. 5-5555. The police will notify the appropriate authorities, depending on size of the spill.

It is essential to know what chemicals are involved, the quantity of the spill, and the exact location of the spill. The safety of everyone in the laboratory and everyone else in the building is of paramount importance. If the spill could potentially harm someone, isolate the area where the spill occurred and call the Police at ext. 5-5555 to report the spill.

In order to place your laboratory in a position to be able to handle a small spill, preplanning is necessary. Laboratories must have a minimum amount of personal protective equipment (PPE) and appropriate clean-up materials present prior to an incident. The minimum PPE needed includes:

- Splash Goggles
- Lab Coat with sleeves rolled down
- Nitrile or neoprene gloves-in good condition

The supplies needed to clean up a spill will depend on the quantity and type of chemical that is spilled. A recommended list of supplies is:

- Polypropylene pads
- Heavy duty trash bags
- Hazardous waste labels
- A gallon plastic container with lid
- Dust pan and brush
- Laboratory tongs
- Clay absorbent

Clean-up Procedures

The responsibility of the first responder is to limit access to the spill so that unsuspecting persons do not inadvertently encounter spilled material and contaminate themselves or spread the spilled material beyond the immediate spill area.

The second responsibility is to don the appropriate personal protective equipment and control further release and spread of material, if possible. This step often involves righting containers and placing absorbent or other diking material around the spill to prevent the spread of the spill beyond the containment area.

Once the spill has been contained, the responder should absorb any free liquid. The appropriate absorbent will vary with the different chemicals. Spills of acids and bases can be easily absorbed into polypropylene pads. If Polypropylene pads are not available, a safe way to absorb most liquid is by using a clay absorbent similar to kitty litter. The clay is a safe, cheap and efficient absorbent for chemical spills. Once all of the free liquids are absorbed, place all of the absorbents and other contaminated spill clean-up materials into a heavy duty trash bag or plastic container.

Many spills involve broken glass. The responder must be careful not to get cut by broken glass during the clean-up process. Use tongs to pick-up the broken glass.

Once the spill is cleaned up, it is necessary to neutralize any remaining residues and decontaminate the area. This can be accomplished by using an acid or base neutralizer for corrosive chemicals or using warm, soapy water for other chemicals. NOTE: Water should never be used for chemicals that are water reactive.

The final step is to inspect the area for spill residue, hidden contamination, or other unsafe conditions. Once you are certain that none of these exist, place the entire spill clean-up and other contaminated materials into a trash bag or plastic container that can be sealed shut. Label the container as hazardous waste and specify the contents. Fill out a hazardous waste pick-up request form, or contact the Environmental Safety & Health Office at 5-2918 with any questions.

Lastly, restock your spill supplies!

***Mercury spills require special handling. Do not attempt clean up of mercury without mercury spill control supplies. ***