The procedures for cleaning up a chemical spill depend on several factors relating to the identity of the chemical (its volatility, concentration, toxicity, the volume spilled and whether or not it is a solid or liquid) and the level of training you have received. Spills can be simple or complex. A simple spill does not spread rapidly or endanger people.

**Chemical Spill Procedures**

1. Stop working and notify colleagues and the lab PI that a spill has occurred.
2. Move away from the area while evaluating spill response.
3. Be aware of the location of safety equipment such as Fire Extinguishers, Eye wash, Safety Shower.
4. Recognize Hazards – conc. acids & bases; toxic (health hazard) chemicals; oxidizers; water/air reactive, etc.
5. Identify Spill risks - volatile vapors, air or water reactive & oxidizers all have the potential to cause a fire or explosion; vapors may move into other rooms exposing others to their harmful effects.
6. Evaluate the spill – is it simple or complex (examples shown are not all inclusive)?
   a. Aqueous solutions or benign solids (sodium chloride, sodium carbonate, etc.) – simple
   b. Organic/Metal Solids with a lot of dust or fine particulates – complex (WARNING: STATIC CAN SET OFF DUST EXPLOSION)
   c. Organic/halogenated solvents; reactive or toxic chemicals? – complex (The presence of flammable vapors requires that you TURN OFF ignition sources – NEVER UNPLUG anything)
   d. Location of spill – spills inside the fume hood (simple) have a lower risk of exposure than those outside the hood (complex)
   e. Volume of spill – threshold volume for requiring assistance depends on hazardous properties.
7. Complex spills involving reagents with hazardous properties require the assistance of the Safety Officer, Eydiejo Kurchan (x97481), 484-367-5884, or eydiejo.kurchan@villanova.edu
8. If you have been exposed (via inhalation, absorption, ingestion or injection) to chemical reagents during a spill, you will need to inform both your PI and the Safety Officer, so a Laboratory Incident Report can be completed.

**Simple Spills**

1. If you feel comfortable, proceed to clean up a simple spill. You are always welcome to ask for assistance from the Safety Officer.
2. Wear appropriate Personal Protective Equipment (PPE) for cleanup including:
   - Lab coat
   - Chemical Goggles
   - Gloves (doubled if necessary)
   - Booties for over shoes (optional – located in spill kit)
3. Close the lab door to prevent the spread of dust or particulates.
4. Isolate a spilled liquid with a ring of absorbent materials to prevent spreading. Saturate the rest of the liquid with the spill control material. Use items from the **spill kits in Mendel 208, 302 or 388** (kitty litter, vermiculite, diatomaceous earth, charcoal absorbents; large size protective gloves, booties; shovels and scoops; bags for solid waste disposal)
5. Use a dust pan and brush, or other method, to scoop up the liquid-solid mixture and place into a suitable solid waste container, labeling the container with date and contents and contact Eydiejo Kurchan (x97481, eydiejo.kurchan@villanova.edu ) for waste pickup.
6. Wipe the area down with soap & water using paper towels to finalize clean-up.