

Chemical Spills

Every lab should be equipped with a suitable spill kit and response procedures. The following links suggest some generic supplies, equipment and procedures to incorporate into your laboratory operations.

RECOMMENDED ITEMS TO INCLUDE IN A LABORATORY SPILL KIT

- Universal absorbent pads: Suitable for the absorption of virtually all liquid chemical spills. These pads are nearly a stand alone spill kit. Available from chemical supply houses.
- Granular absorbent material. Available from most lab supply houses. This material comes under many different names such as zorboll. Unscented kitty litter is the same product.
- Disposable gloves. Nitrile is resistant to a wide range of chemicals. However care should be taken in selecting the appropriate gloves for your lab. Nitrile is not suitable for protection against Phenol.
- Protective eyewear: Different spills will require different eyewear. Sealed goggles should be suitable for most lab spills.

- Mercury spill Kit: Many types are available from lab supply houses.
- 20 Liter plastic pail (or equivalent tight closing plastic container) identified as: SPILL KIT. Used to contain spill equipment. When emptied is also useable as a disposal container for contaminated absorbents.
- Black garbage bags to use as a liner for the 20 Litre pail.
- Duct Tape: Many creative uses exist for duct tape. They include temporary fixes for damaged containers and temporary seals for damaged lids. Remember that duct tape is a TEMPORARY solution.

This is a generic list of supplies. Your individual needs may vary.
Contact Environmental Health and Safety for additional information.

Generic University Spill Procedures

TRANSPORTATION EMERGENCIES

In the event of a transportation emergency involving dangerous goods the following steps must be immediately taken:

1. Notify police and fire departments in the appropriate jurisdiction.
2. If during regular business hours, notify the Environmental Health and Safety office (EHSO) at 474-6633 or campus police after hours by dialing 555 or 474-9341.
3. Notify the shipper or owner of the product.
4. Notify Manitoba Environment at 944-4888.
5. In the case of the loss or theft of infectious substances (class 6.1), notify CANUTEC at: (613) 996-6666.
6. Remain in a safe location and await the arrival of emergency personnel.

LABORATORY SPILLS

A spill is defined as a chemical out of control. Spills can be categorized into two types: Minor Spills and Major Spills. Major spills must be reported to EHSO as soon as is safely possible. EHSO has equipment and trained personnel for hazardous materials emergency response, and

may be able to remedy a major spill without outside assistance. A spill is considered **major** when it meets one or more of the following conditions:

1. Injuries requiring medical attention.
2. Fire or potential for fire.
3. Cleanup is beyond abilities of persons involved.
4. No backup person to assist in cleanup.
5. Required personal protective equipment is not available.
6. Unknown material involved.
7. Spill poses an immediate danger to life or health.
8. Spilled material enters the environment. (land or waterway including sewer system.)

Minor spills are spills that do not meet the criteria of a major spill. They must be reported in writing to EHSO within one working day of the occurrence. This report must contain the date, time, location, names of persons involved, material spilled and volume, as well as a detailed description of the incident. A minor spill is the responsibility of the department where it occurred, and is to be cleaned up by laboratory personnel. Any waste material collected should be disposed of through EHSO.

QUALIFIED PERSONNEL ONLY SHALL PERFORM CHEMICAL SPILL CLEAN UP. JANITORIAL AND HOUSEKEEPING STAFF DO NOT HAVE THE APPROPRIATE TRAINING TO CLEAN UP A CHEMICAL SPILL.

If a spill occurs:

1. Don't panic.
2. Assess the situation. Is it a Major Spill?
3. Follow emergency procedures appropriate to type of spill.

CLEAN UP PROCEDURES FOR LABORATORY SPILLS

MINOR SPILLS

A minor spill is any spill that does not fit the criteria for a major spill. The following procedure should be used when dealing with a minor spill:

1. Attend to injured or contaminated persons.
2. Evacuate nonessential personnel from the area.
3. Control spread of spill -- this may include covering or damming floor drains.
4. Refer to Material Safety Data Sheets for cleanup information.
5. If you doubt your ability to cleanup the spill safely, vacate the area and call EHSO during business hours at 474-6633 or campus police after hours by dialing 555 or 474-9341.
6. Clean up spill.
7. Notify EHSO of the spill in writing within one working day.

MAJOR SPILLS

Because every major spill is different, following general procedures is not always feasible. However, the following steps should be considered in the event of a major spill:

1. If the spill poses an immediate danger or involves an unknown, evacuate the area and restrict access.
2. In the event of a fire, follow the fire plan for that building.
3. Shut off all ignition sources if safe to do so.
4. Attend to injured persons if safe to do so.
5. Try to control spread of spill if safe to do so.
6. If during regular business hours, notify EHSO at 474-6633 or campus police after hours by dialing 555 or 474-9341.

7. If chemical vapors or gases are being spread through the buildings ventilation system, contact Physical Plant at 474-8911 and inform them to shut off the ventilation system.
8. Wait for cleanup personnel to arrive, provide them with the Material Safety Data Sheets for the product involved, and inform them of other possible hazards in the area.

**ALWAYS REMEMBER: YOUR SAFETY COMES FIRST.
NEVER PUT YOURSELF IN A POSITION WHERE YOU WILL BECOME A VICTIM.**

In the event of a spill beyond your control capabilities (due to training, volume or hazard) the Hazardous Waste Program will provide **Hazardous Materials Emergency Response (Haz Mat)** services to university departments. Trained personnel and specialized equipment are available to mitigate many types of chemical spills.

EHSO resources may be deployed during regular work hours by calling 474-6633. After hours please call Security Services at 474-9341.