UNIVERSITY OF MANITOBA

CHEMICAL SPILLS
(revised April, 2013)

A spill is defined as an uncontrolled release of a chemical. Spills can be categorized into two types:

1. Major spills
2. Minor spills

Major spills meet these criteria:

- There is fire or potential for fire or explosion.
- The spill poses an immediate danger to life or health.
- There are injuries requiring medical attention.
- You do not know the properties or hazards of the spilled material

Major spills require an external emergency response, ie. Winnipeg Fire Department. See Appendix A for details on dealing with major spills.

Minor spills are spills that do not meet the criteria of a major spill and can normally be dealt with by University personnel. Environmental Health and Safety (EHS) can provide technical advice or onsite assistance. See Appendix B for details on dealing with minor spills.

If a spill occurs:

- Don't panic.
- Assess the situation. Staff involved in a spill will need to use their best judgment in determining whether the spill is major or minor.

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

Disposal of hazardous waste resulting from a spill

The EHS Hazardous Waste Management program should be contacted (474-6633) to properly dispose of any hazardous waste resulting from a spill.

Spill report/investigation

Major spills require an incident investigation to be conducted by the supervisor. Major spills meet the Province's criteria for a "Serious Incident" and the local area safety and health committee (LASHC) co-chairs, or their designates, are required to investigate. EHS staff will be available to assist in the investigation.

Minor spills must be reported in writing to EHS 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 and any corrective actions taken.

Appendix A - MAJOR SPILLS

For spills resulting in fire, potential for fire, creating conditions immediately dangerous to life and health, or spills of materials where the hazard is not known

1. Pull the fire alarm
2. If possible to do so safely:
    a. Attend to injured persons b.
    Shut off all ignition sources c.
        Try to control spread of spill
3. Exit the building
4. Share incident details
    a. <u>During business hours</u> - locate the Chief Fire Warden, they will generally be close to the building's fire panel (usually at one of the building's main entrances), and brief them on the nature of the emergency and other possible hazards in the area.
    b. <u>After hours</u> - call Security Services and brief them on the nature of the emergency and other possible hazards in the area. Wait for first responders or Security Services to arrive and identify yourself. Provide any additional information requested.
5. Required notifications
    a. <u>During business hours</u> - contact EHS (474-6633) as soon as possible. They will ensure that mandatory provincial notifications take place.
    b. <u>After hours</u> – Security Services will notify the Emergency Response Manager who will deal with notifications.

For spills resulting in injuries requiring medical attention that do not pose any of the risks above:

1. Contact Security Services (dial 555 or 474-9341 or use red phones)
2. Evacuate others from the space
3. If possible to do so safely:
    - Attend to injured persons
    - Shut off all ignition sources
    - Try to control spread of spill
4. Notify your direct supervisor as soon as possible
5. Do not disturb the accident scene if there were serious injuries, eg. injuries requiring emergency medical treatment
6. Required notifications
    - <u>During business hours</u> - contact EHS (474-6633) as soon as possible. They will ensure that mandatory provincial notifications take place
    - <u>After hours</u> – Security Services will notify the Emergency Response Manager who will deal with notifications.

Appendix B - MINOR SPILLS

A minor spill is the responsibility of the department responsible for the spill, and should be cleaned up by University personnel. Caretaking/ housekeeping staff do not have the appropriate training to clean up a chemical spill.

In the event of a minor spill:

1. If there is a need, evacuate the area. The room's ventilation system should control any spread of gases or vapours to the rest of the building with the doors shut.
2. Attend to any contaminated persons.
3. Control spread of spill, eg.
4. this may include covering or damming floor drains.
5. Refer to material safety data sheets (MSDS), or any existing safe work procedure, for hazard and cleanup information. If there are concerns about safely cleaning up the spill:
    - During business hours - contact EHS (474-6633). If you are unable to contact EHS in a timely manner contact Security Services (dial 555 or 474-9341 or use red phones).
    - After hours - contact Security Services (dial 555 or 474-9341 or use red phones).
6. Clean up spill. Appendix C contains a list of spill clean-up materials that should allow you to deal with most minor spills.
7. If any spilled materials were released to the environment, eg. entered the sewer system:
    - During business hours - notify EHS (474-6633) as soon as possible
    - After hours – notify Security Services (dial 555 or 474-9341 or use red phones)

Appendix C –SPILL KITS

Every lab should be equipped with a suitable spill kit and have established response procedures. It is recommended that the location of a spill kit be clearly marked.

The following list suggests some generic supplies to consider as part of a spill kit. Your individual needs may vary. Contact EHS (474-6633) for additional information or assistance.

RECOMMENDED ITEMS TO INCLUDE IN A 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 zorball. Unscented kitty litter is the same product. ***Do not use granular absorbent on spills of radioactive material***

Gloves. Nitrile is resistant to a wide range of chemicals. However care should be taken in selecting the appropriate gloves for your lab. Consult the MSDS for a spilled material to ensure that appropriate gloves are available.

Protective eyewear: Different spills will require different eyewear. Goggles should be suitable for many lab spills.

Mercury spill kit: Many types are available from lab supply houses. EHS has special equipment available for dealing with larger mercury spills.

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. Note that if the pail is not used the materials for EHS pick-up should be segregated and placed in a clear plastic bag to avoid inadvertant collection by caretakers.

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.