

# SBMS guidance note (SBMS09)

## Recommended Response to a Chemical Spill

### ***Simple Spills***

If the spill does not meet any of the conditions for a complicated spill (see below), the spill is defined as simple.

### **A spill is complicated if:**

- a person is injured; or
- identity of the chemical is unknown; or
- multiple chemicals are involved; or
- the chemical is highly toxic, highly flammable or highly reactive; or
- the spill occurs in a “public space” such as corridors; or
- the spill has the potential to spread to other parts of the building such as through the ventilation system; or
- the clean up procedures are not known or appropriate materials are not readily available; or
- the clean up requires a respirator to be worn and no personnel are available that have been fit tested or officially trained to use a respirator or
- the spill may endanger the environment such as reaching waterways or outside ground.

### **Specific spill response measures for simple spills**

1. Call the spill response team as indicated on your nearest safety notice board.
2. If safe to do so- Prevent the spread of fumes and vapors into other work areas by closing doors and windows (if possible).
3. If safe to do so - Remove all potential sources of ignition (pumps, Bunsen burners, mechanical equipment not designed to be spark proof) if the spilt material is flammable.

### **Spill response Teams-**

4. Identify the spill and determine appropriate response from risk assessments etc..
5. Use the necessary personal protective equipment such as appropriate gloves, eye protection and lab coat or apron.
6. Absorb liquids using absorbent material, preferably using sorbent pads or spill pillows. Avoid using any silica product with hydrofluoric acid.
7. Small spills of acids and bases can be absorbed with sorbent pads and placed in a bag.
8. Spills of powders should be swept up carefully to avoid contaminating the air with dusts from the chemical. Appropriate RPE should be worn.
9. Collect and contain the clean up materials in a plastic container or thick plastic bag (as long as there are very little free liquids). Place a descriptive label on each container or bag.
10. Decontaminate the area and affected equipment if safe to do so. Ventilate area if necessary.
11. Contact the Safety Advisor or the Chemistry Department if you have any questions.
12. Dispose of wastes by following the instructions in local rules.

## Mercury spills

1. Cordon off the area to prevent mercury from being tracked.
2. Report spill to spill team who will arrange for it to be cleaned up.

NOTE: The best method of dealing with mercury spills is to prevent them in the first place. Examine all uses of mercury to see if substitutes are available. If not, use trays or other equipment to provide containment in the event of a spill.

Call security (502257) for assistance in the following kinds of emergencies:

- medical assistance for injuries
- fires
- explosions
- chemical spills for which assistance is required (complicated spill)

Security will dispatch the relevant emergency service as appropriate.

## Specific spill response measures for complicated spills

1. Evacuate affected area, alert others in the area to have them evacuate too.
2. Close doors and windows (if possible) as you evacuate the area. Open windows can cause fumes and vapours to travel into the hallway.
3. Contact Spill Response team.

### Spill Response Team-

4. Contact Security and Provide information on the nature of the spill.
5. Arrange for someone to meet the emergency services.
6. Secure the area with signs and warning tape, or post staff outside of the affected area so personnel cannot enter the area until emergency services arrive.

## Summary- 10-Step Plan for dealing with Spills:

- 1. Get away-**
- 2. Identify the spill- Speak to witnesses/laboratory contacts**
- 3. Get help- report spill to Superintendent/Spill team contact.**
- 4. Seal off the area-Check all accesses and potentially affected areas e.g. may need to warn floor below if chances of leak penetrating ceiling.**
- 5. Look for injuries- call first-aider/emergency services if necessary.**
- 6. Identify the hazard- Check Risk assessments/MSDS.**
- 7. Prepare a plan of action- follow kit instructions and work in teams.**
- 8. Get proper equipment and materials; use spill kits and PPE provided- if not suitable get assistance from Chemistry or emergency services.**
- 9. Contain the spill: ensuring minimal risk to yourselves and others- ventilate room if safe to do so.**
- 10. Clean-up: Dispose of waste, clean up/dispose of PPE and note supplies required. Prepare accident/incident report for superintendent.**