

Integrated Pest Management Program - IPM Manual for Home & Garden Pests in B.C. - Chapter 5

Integrated Pest Management

IPM Manual for Home and Garden Pests in British Columbia

Chapter 5: Emergency Response

Learning Objectives

When you have completed this chapter, you should be able to:

1. Know what emergency plans to have in place in the event of a pesticide spill or fire involving pesticides.
2. List items that should be included in a pesticide spill kit.
3. Describe safe procedures for cleaning up pesticide spills.
4. Know what emergency numbers to post, where to call for decontamination information, and who to notify if a pesticide is spilled in the environment.
5. Describe first aid for someone who has been exposed to a pesticide.
6. Describe what to do in the event of a fire involving stored pesticides.

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Introduction

Pesticide spills and fires involving pesticides can happen at a vendor site or once pesticides have been bought and taken home. Dispensers must be able to take appropriate measures during an emergency to ensure the safety of themselves, other employees, and customers at the vendor site. Dispensers should also be able to help customers prepare for emergencies involving pesticides at home.

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Pesticide Spills

Pesticide spills jeopardize the safety of people and animals in the area as well as contaminate the environment. Taking prompt action to clean-up and knowing basic

first aid for pesticide spills can prevent a minor problem from becoming a serious incident.

Spill Contingency Plan

It is the responsibility of the pesticide dispenser to prepare a plan for handling spills at the vendor site. The plan should cover all aspects of handling a spill, such as who to notify, location of spill kits and how to deal with the type of pesticides stored at the vendor site and hazards they present. Other employees should know where the plan is kept, and, if possible, know the plan themselves, in case they have to deal with a spill.

Evaluate Hazard of Stored Pesticides: The hazard presented by a spilled product depends on the pesticide. For example, a spill involving low-toxicity insecticidal soap would not require the same reaction as an acutely toxic dimethoate concentrate. Hazard should be evaluated by checking the label of stored pesticides for warnings and poison symbols.

Post Emergency Numbers: Emergency telephone numbers for the local police and fire departments, ambulance service, Poison Control Centre and the Provincial Emergency Program number (1-800-663-3456) must be readily available, preferably posted beside telephones in the vendor display area or otherwise clearly visible.

Pesticide Spill Kit

A spill clean-up kit should be located near pesticide storage or display areas. At a minimum, the kit should contain:

Safety Equipment: Appropriate personal protective equipment should be available for dealing with a spill, (for example, unlined rubber or plastic gloves, unlined boots, coveralls, and a cartridge respirator suitable for pesticides).

Absorbent Materials: For containing and soaking up spills, absorbent material such as kitty litter, sand, vermiculite, or sawdust are required.

Decontamination Materials: Soap and bleach should be available for decontaminating the spill site. Do not use bleach unless it is specified on the label or the Material Safety Data Sheet (MSDS) sheet.

Other Tools: Clean-up tools include a long handled broom, dustpan, and shovel. Garbage bags and a plastic bucket or garbage pail with lid are required for containing waste.

Procedures for Handling Spills

It is essential to respond quickly to pesticide spill emergencies and to remove the spilled pesticide as soon as possible. The following steps should be taken:

1. **Isolate Area:** Keep people and animals away from the spill area.



2. **Read Label:** Product labels may contain information on how to respond to a spill and should be consulted first for specific precautions.



3. **Ventilate Area:** If the spill is indoors, ensure there is maximum ventilation by opening all possible windows and doors to prevent build-up of vapours.

4. **Wear Protection:** Put on personal safety equipment as required to keep the pesticide from contacting skin or clothing. At a minimum, wear unlined rubber or plastic gloves, long-sleeved shirt, long pants, and shoes and socks. Wear a respirator if necessary to prevent inhalation of pesticide vapours.

5. **Containing Liquids:** Put down a barrier to prevent spilled liquids from spreading. This could be sand, paper towels, or any absorbent material immediately available.

- Place leaking containers inside new plastic containers to prevent additional pesticide from spilling.
- Soak up liquid pesticides with absorbent materials from the spill kit or other readily available materials.
- Do not try to wash away spilled pesticides. This will contaminate a greater area, make decontamination more difficult and present a greater risk to the environment due to run off.

6. **Collecting Dusts:**

- Dusts should be moistened with a fine mist before removal to prevent dust from floating into the air during clean-up.
- Do not use a vacuum cleaner to collect spilled dust.

7. [Decontaminate Spill Sites](#)

8. **Dispose of Waste:** Put the pesticide clean-up materials and pesticide residue into a sealed plastic container. Label the container with the name of the pesticide and PCP Registration number. For proper disposal, a vendor would use the services of a private waste disposal company. A homeowner should take pesticide residue from a container with a toxic warning symbol (skull-and-crossbones) on the label, to the nearest Consumer Product Stewardship Program collection depot [For locations of local depots, call 1-800-505-0139 or 604-878-8700]. A container with low toxicity pesticide residues can be disposed of with household garbage.

Note: Collected pesticide from the spill may still be good for use and does not require disposal. For example, a granular pesticide spilled onto a dry, hard surface could be collected and used.

9. **Change Clothes / Wash:** After the spill is cleaned up, remove safety equipment, shower, and change clothes if it is possible that they were contaminated during cleanup.

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First Aid for Pesticide Exposure

Take the following steps to assist a person who has been exposed to a pesticide:

1. **Prevent Additional Contamination:** This usually means moving the person away from the spill area, although it may require moving containers of pesticide away from the person. Remove any contaminated clothing. Wash any body areas in contact with the pesticide, using soap and water, as soon as possible.
2. **Check that Victim is Breathing:** Artificial respiration takes precedence over all other first aid procedures.
3. **Get Medical Aid:** Call for medical aid immediately. Provide as much information as possible about the pesticide by keeping the container and label handy. Provide the history of exposure and poisoning symptoms [The 24-hr. phone line for BC Poison Control Centre is: 1-800-567-8911 or 604-682-5050].
4. **Keep Victim at Rest, Warm and Comfortable:** The victim should be kept calm, preferably lying down, until medical help arrives. Continue any first aid treatment.

Note: Additional first aid procedures for handling specific types of poisoning resulting from pesticides on skin, in eyes, inhaled or swallowed can be found in the Handbook for Pesticide Applicators and Dispensers.

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Decontaminating Spill Sites

Technical information on pesticide clean-up and decontamination may be obtained from CANUTEC, a data bank in Ottawa, operated by Transport Canada. They maintain a 24-hour emergency number (see box). Phone the 24-hour Provincial Emergency Program number and an operator will contact the appropriate staff and notify them of the spill, or obtain assistance as required.

24-hour Emergency Numbers

**CANUTEC 1-613-996-6666 Pesticide clean-up,
Decontamination Information**

**BC Provincial Emergency 1-800-663-3456 Spills in the
Environment Program**

Following are standard procedures for decontamination of:

Hard Surfaces: For cement or tile floors, a small amount of soap and water can be used to wash the contaminated area. Remove the wash solution with absorbent material. The washing may have to be repeated for thorough cleaning. The wet material should be placed in a plastic bag, and the bag placed in an outdoor garbage can.

Soil: The top 3 - 6 cm of soil should be removed, placed in a plastic bag and disposed of in an outdoor garbage can.

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Fires Involving Pesticides

Fires involving pesticides are hazardous because chemicals can be released as vapours into the air and spread by water used to fight the fire.

Fire Safety Plan

The pesticide dispenser should have a plan of action ready in the event of a fire where pesticides are stored. This plan should be known to the staff. Safety preparations for fires include:

Install Fire Extinguisher: A pesticide storage or display site must be equipped with a fire extinguisher rated for chemical fires.

Post Emergency Numbers: A list of emergency telephone numbers for the local police, fire department, and ambulance service should be posted in the vendor display area.

Notify Fire Department: It is a legal requirement that the local fire department be notified of the location of any vendor sites that contain pesticides. This is not required for households where pesticides are stored, but if a fire does occur in this situation, the fire department should be informed that pesticides are present.

Fire Emergency Procedures

Vacate the Area: Clear the area of people and animals and evacuate them upwind of the fire.

Call Fire Department: The fire department must be called immediately. Make it clear that pesticides are on the property and provide as much information as possible on the specific pesticides involved. If necessary, call police to control traffic, and get medical aid to deal with cases of pesticide exposure.

Decontaminate Area: In consultation with fire fighting experts, proceed with decontamination of equipment, protective clothing and land where pesticides have been released.

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STUDY QUESTIONS

Answers are provided [here](#).

1. Which of the following should be considered in a spill contingency plan?
 - a) warehouse construction materials
 - b) hazard evaluation of each product stored
 - c) emergency telephone numbers

- d) location of first aid kit and spill clean-up kit
- e) (b) and (c)
- f) (b), (c) and (d)

2. Which of the following is NOT a recommended procedure for handling spills?

- a) read pesticide label
- b) ventilate area
- c) wash away as much pesticide as possible
- d) keep other people and pets out of the area

3. Why should a dispenser check the product label before starting to clean up a pesticide spill?

4. After contamination with a pesticide, what type of surface(s) can be cleaned with soap and water?

- a) wooden shelving
- b) concrete floor
- c) dirt floor
- d) carpeted floor

5. A co-worker has spilled pesticide on himself and you go to help him. List the four basic first aid steps you should take.

6. What are two major hazards associated with fires involving pesticides?

7. What is the difference between the application terms "spray to drip" and "spray to wet surface"?

8. List three safety preparations the vendor should make for fires involving pesticides.

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