



Lesson 7: Emergency Response

Fortunately, accidents and emergencies involving pesticides do not happen often. But when they do, they can cause serious environmental damage, affect pets, wildlife, and livestock, and endanger human health. As an assistant applicator, you'll need to know how to respond to an emergency involving pesticides.

Key Learning Points

- Identify the location of First Aid and Toxicological Information on a pesticide label.
- Describe how to respond to a pesticide spill.
- Describe how to perform first aid for pesticide exposure.

Emergency Response Plans

Your employer will have an emergency response plan (ERP). An ERP is a very important document. It helps your business rapidly respond to emergencies. It contains a list of emergency response agencies and their telephone numbers, and should always be kept up to date. Make sure your employer provides you with or tells you where the ERP is stored. Your supervisor may not be available to help in an emergency—if they themselves are injured.

Remember the 3 Ps!

Emergency response plans have three parts:

- **Planning** – Your company must have a plan in place for how to respond to a pesticides emergency.
- **Preparation** – You must feel prepared, and know what to do in advance of a pesticides emergency.
- **Practice** – Your company should offer you the opportunity to practice what to do in a pesticides emergency.

Emergency response agencies and their telephone numbers:

If your employer's ERP does not include an up-to-date list of numbers, let your supervisor know.

A good practice is to keep your list of emergency numbers next to a landline, but also in cell phone contacts, laptops, and in First Aid kits.

Personalize your list of emergency numbers: include the contact information for the pesticide companies that provide the products that you use.

Most provinces will have provincial emergency management contacts. For example, the number for Emergency Management BC (formerly known as PEP or the Provincial Emergency Program) is 1-800-663-3456.



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Your ERP's Checklist

Your ERP's checklist should have:

1. Location
2. What happened (type of accident, emergency actions taken)
3. Your name, address and phone number
4. Chemical involved (PCP#, trade name, active ingredient)
5. Injuries (type and extent of exposure)
6. Potential environmental damage

Your supervisor should:

- Keep an up-to-date inventory of all pesticides, labels, and MSDS.
- Make sure you know where to find this inventory list and these documents.
- Keep an up-to-date inventory of all emergency equipment and supplies.
- Make sure you know where to find this list, and make sure you can locate these equipment and supplies.

Along with your supervisor and your coworkers, you must be sure to practice and review your emergency response plan on a regular basis.

Remember the 3 Ps!

- **Plan**
- **Prepare**
- **Practice**

What is a Pesticide Emergency?

- Pesticide spills
- Fire in pesticide storage facilities
- Accidents causing pesticide exposure
- Vehicle accidents
- Theft of pesticides
- Vandalism
- Explosions
- Natural disasters (floods, ice storms)

Pesticide Spills

The most common emergency encountered in pesticide application is a spill. Most spills are quite small: an applicator may drop a container, or may spill while mixing.

Spills are dangerous. Pesticide or vapours may poison people, animals or plants. A spill could contaminate soil or surfaces such as wood or concrete. A spill could prevent the growth of plants in contaminated soil, or could result in the contamination of food or feed that contacts contaminated surfaces. Spilled pesticides that move on or through the soil may also contaminate sewer systems, streams, lakes, wells and other water sources.





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Small spills

A small spill is less than 5 L or 5 kg of material containing a pest control product. A spill of this size does not need to be reported to provincial authorities, but it does need to be responded to quickly and carefully. Watch the following video to see how one applicator responds to a small spill while mixing her pesticide.

To respond to a small pesticide spill:

1. **Protect yourself.** Make sure you are protected with PPE, and ventilate the area if necessary.
Control the spill. Stop the flow of pesticide (reposition the container, shut off valves or turn off equipment).
2. **Contain the spill.** Prevent it from spreading—using spill collars if necessary, or absorb with kitty litter or other absorbent material.
3. **Clean up the spill.** Sweep up the absorbing material, or shovel it into the designated waste container. Clean the area fully. Seal and store the waste container.
4. **Clean equipment and people.** Clean up all equipment and protective gear after you've cleaned up the spill area. And finally, take a shower.
5. **Report the spill to your supervisor.** Most companies want to track “close calls” such as these small spills to keep track of their overall safety performance.



When you have access to the Internet (or if you downloaded the video in advance), watch this short video, [Small Spill Response](#).

NOTE: The applicator in the video is wearing an item of PPE incorrectly. Can you spot the error? (Check your answer below).

Ask your supervisor to familiarize you with your **spill kit**. You need to know where to find it, and what's in it.



Answer: The applicator's sleeves are tucked inside her gloves.



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Responding to Pesticide Poisoning

If someone starts to feel sick during or after working with pesticides, it is essential to get medical help as soon as possible. Do not delay and do not wait until the person becomes dangerously ill. Call the BC Drug and Poison Information Centre immediately (1-800-567-8911) and follow their instructions. They may instruct you to take the person to a doctor or hospital. It is always a good idea to have extra copies of the pesticide label. Medical personnel will need to know the pesticide's ingredients in order to determine the best treatment. Even if the illness is not related to pesticide exposure, it is much better to be safe than sorry.

First Aid

First aid is the immediate assistance given to an injured person before medical help can be reached. This helps to stabilize a person, reduce the amount of exposure to a pesticide and sustain life.

General procedures:

- Protect yourself first.
- Remove victim from area (into fresh air).
- Give artificial respiration if needed (use a plastic airway adaptor).
- Check the label.
- Get medical assistance: Contact a doctor or poison control centre, or emergency services.
- Keep the victim comfortable.
- Notify your supervisor.



For other general first aid, watch [First Aid for Pesticides](#) (Excerpt from the Ontario Pesticide Education Program's video).

If you're working offline, remember you can come back to the Module 7 web page and download or stream the video from there.



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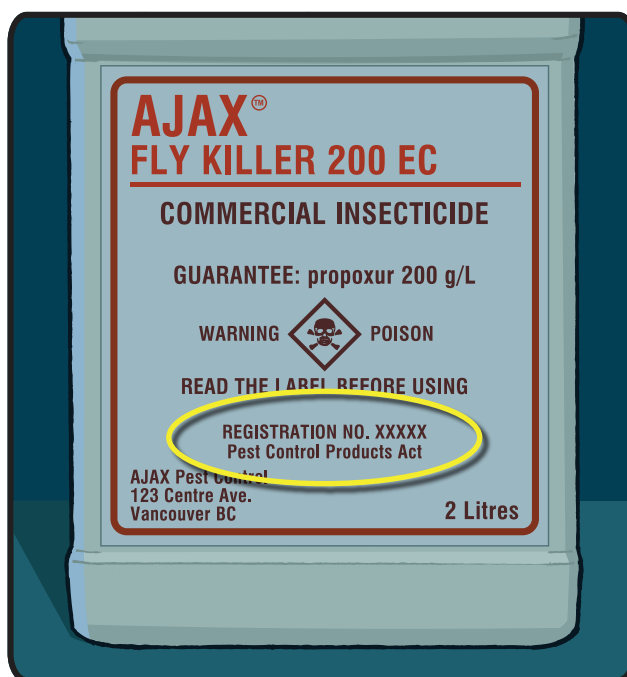
Checking the Label in an Emergency

You'll remember from *Lesson 2: Pesticide Labels* that the hazard information is always presented with words and symbols on the label..

There is other information on the label that will be useful during an emergency: the **registration number**. The pesticide is registered for use in Canada by the Pest Management Regulatory Agency (PMRA) under this number. No two pesticides or pest control products have the same number. This number can be used by emergency personnel to access specific pesticide labels for information on how to deal with a spill or poisoning.

The label shows the registration number beneath the caution to read the label before use:

If you can't bring the label with you when taking someone to get medical help, take the registration number. Knowing the active ingredient will also help. You can find the active ingredient on the guarantee statement on the label. (The active ingredient in the pesticide shown above would be "propoxur.") The medical personnel can use the registration number or the active ingredient to get information to help the patient.





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First Aid: Responding to Pesticide Poisoning

First aid is the immediate assistance given to an injured person before medical help can be reached. This helps to stabilize a person, reduce the amount of exposure to a pesticide and sustain life.

When you encounter someone ill from pesticide exposure, you should follow an order of action. Some of the steps may apply or may not apply, depending on the nature of the emergency.

1. You must first ensure your own and others' safety as a responder. **If it is not safe to enter an area, DON'T.** If you can comfortably determine that it is safe to enter an area, ensure you are first wearing the appropriate PPE. At this point, removing the victim from an inhalation source is your next priority.
2. Support airway, breathing, and circulation as required. Ensure that you protect yourself from contamination by using a plastic airway adaptor when performing mouth-to-mouth respiration. Note that CPR (cardiopulmonary resuscitation) should only be performed by trained people.
3. Begin treating the eyes, if affected (see below). Then treat the eyes, if affected.
4. Begin cleaning any skin that is contaminated with pesticide.
5. Contact the BC Drug and Poison Information Centre or medical personnel. Have the pesticide label information ready.
6. Deal with any ingestion based on advice received from medical personnel and the pesticide label (check the First Aid Information in the secondary information on the label).
7. Administer any other first aid as required.
8. Keep the victim comfortable, warm, and quiet.

First Aid: Treating Eye Contamination

Exposure to pesticides can cause serious, long term damage to the eyes. Eyes should be flushed with the best available source of clean water as soon as possible.

1. Eyelids should be held open and the eyes washed with clean running water for at least 20 minutes
 - a. Check with your supervisor to see what eyewash facilities you have available. Ideally, your crew should carry a portable eyewash station. Many first aid kits contain eyewash bottles; however, these cannot supply a continuous flow for 20 minutes – and that's what you need.
 - b. If a portable eyewash station is not available, a hose (operating at low pressure) can be used. Get medical help as soon as possible after starting treatment
2. Get medical help as soon as possible after starting treatment.



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If you're online, try the [First Response for Pesticide Poisoning](#) and [Which exposure should be treated first?](#) activities, now.

Fires and Theft

You can take some of these simple steps to prevent fires:

- Open flames and smoking should not be allowed in the storage area (including in the vicinity of temporary and mobile storage units) while pesticides are present. This includes welding and cutting torches.
- All doors and windows must be secured to prevent unauthorized people from entering the storage facility.
- Store pesticides away from heating elements and open flame furnaces.

Secure storage also prevents theft of pesticides. Make sure all entrances to storage areas are locked when you are away from the area. This includes vehicles, storage boxes, canopies and trailers.

**If you encounter a pesticide fire,
call the fire department immediately,
and tell them that pesticides
are involved.**

Report pesticide theft immediately.

Emergency Scenarios

This optional activity allows you to assess the best emergency response to a given situation. If you are online, try the [Emergency Scenarios](#) activity now.

Summary

In this lesson, you learned about how to deal with different types of emergencies that may happen when using pesticides.



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Lesson 7 Practice Activity

1. Your coworker appears to have acute poisoning. You call the right emergency number, but you didn't tell them the chemical involved. What might happen?
 - a. The coworker may not be responded to in a timely manner
 - b. Emergency personnel may be at risk for secondary poisoning
 - c. Your coworker may not receive the most appropriate treatment.
2. You go into the storage facility and find a bottle of pesticide has leaked, obscuring the label. What should you do?
 - a. Put on PPE, stop the leak, and check your inventory to identify the pesticide.
 - b. Throw the leaky container in the garbage.
 - c. Inform emergency personnel.
3. When responding to a spill, what should the applicator first do?

4. After cleaning up a spill, what is the last step for an applicator to take?

5. What are the five steps you should take to when responding to a spill?
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
6. If a pesticide fire occurs, what should an applicator do first?

7. If someone swallows (ingests) a pesticide, what should the first aid provider do first?



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8. In the event of any kind of pesticide poisoning, what should the first responder always do?

9. How long should contaminated eyes be washed?

10. If you provide the pesticide registration number to emergency personnel when you're reporting a pesticide poisoning, can that help? Why or why not?



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Practice Activity Answer Key

1. a, b and c
2. a
3. Protect self from exposure (proper clothing, ventilation)
4. shower
5. The five Cs of the spill response plan:
 - a. Control the Spill
 - b. Contain the spill
 - c. Clean-up the spill
 - d. Clean equipment and personnel
 - e. Report the spill to your supervisor.
6. Evacuate people from the building and call the fire department.
7. Call the BC Drug and Poison Information Centre or other emergency medical service.
8. Ensure personal safety before assisting.
9. 20 minutes or more
10. Yes. With this number, medical services can look up the pesticide in Health Canada's registry to see what ingredients are in the pesticide, which will help them know how to treat the patient.



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Glossary

Emergency Response Plan (ERP): An emergency response plan is a very important business document. It details how a pesticide emergency will be responded to in the event of a major accident.

PCP#: The registration number given by the Pest Management Regulatory Agency of Health Canada to a pesticide sold or used in Canada (see Registration number).

small spill: A spill that a person feels comfortable handling themselves. For something larger, they may require assistance of other team members. Note that under the provincial Environmental Management Act's Spill Reporting Regulation, any spill containing a pesticide that is over 5 kg or 5 L must be reported to Emergency Management BC.

spill kit: A kit containing items that assist in containing a pesticide spill and cleaning up after a spill. Basic items in a spill kit include kitty litter to absorb liquid, a broom or shovel, garbage bags, and a sealable waste container.

Registration number: All pesticides are registered for use in Canada by the Pest Management Regulatory Agency (PMRA) under this number. Every pesticide has a unique PMRA registration number. Also referred to as the PCP (Pest Control Products) number or PCP Act No.