**First aid procedures**

The instructions below are arranged in the order of priority that should apply with most poisonings. Proceed through the necessary steps as quickly and as thoroughly as possible.

1. **Summon the first aid attendant** for your worksite as outlined on the posted written procedures for providing first aid. If the worksite does not require a first aid attendant, proceed with the following steps.
2. **Assess the condition of the person, and provide basic life support** as necessary.
3. **Do not leave critically ill patients alone**. Get someone else to arrange transportation to the emergency department of the nearest hospital. Do not delay transportation to the hospital.
4. **Obtain history of exposure** from worker or co-worker, and determine the likely route of entry—mouth, skin, or lungs.
5. **If the pesticide was swallowed by mouth, phone the B.C. Poison Control Centre** using the contact information provided on the last page of this manual.

The approach to treatment will depend on whether a patient is fully conscious or not.

***For treatment of a fully conscious patient***

If the pesticide is a corrosive substance (acidic or alkaline)

* Do NOT make the patient vomit
* Do NOT neutralize
* Dilute immediately by giving the patient 1 to 2 glasses of milk or water
* If the pesticide is non-corrosive or is a hydrocarbon (petroleum product), Poison Control may instruct you to induce vomiting by the following method:
* Give 30 mL (1 oz. or 2 tbsp.) of syrup of ipecac orally. The dose for children under age 15 would be 15 mL (1 tbsp.).
* Give 1 or 2 glasses of clear fluid (water or juice) 10 minutes after the ipecac is administered.
* You may receive instructions to provide activated charcoal after the patient has stopped vomiting. The dose would be 50 g (2 oz.) diluted in 250 mL (8 oz.) of juice or water.
* The Poison Control Centre may instruct you to use activated charcoal immediately. **Do NOT administer activated charcoal to a patient who cannot swallow due to a decreased level of consciousness**.
* Patients who have ingested a hydrocarbon must be watched closely while they are vomiting to ensure that they do not inhale vomit into their lungs.

**Do NOT make the patient vomit if any of the following conditions exist:**

* The patient is too drowsy to sit up, has a decreased level of consciousness, or is convulsing.
* The patient has ingested corrosive acids or alkalis.
* The Poison Control Centre has not been consulted.

***For treatment of a patient with a decreased level of consciousness***

Provide basic life support as necessary and arrange for transport to medical aid.

1. **If the pesticide was spilled or sprayed on a person’s**

***Eyes***

* Wash the eyes with water at once.
* Use a clean stream of water. Keep the victim’s eyes open, and wash for at least 30 minutes.
* Do **NOT** add cleaning agents to the eyewash. Use clean water only.

***Body***

* If the chemical is dry, brush it off before flushing the skin.
* Immediately wash the chemical off the skin with large amounts of water.
* Remove contaminated clothing.
* Do **NOT** contaminate yourself in the process.
* **Do not neutralize corrosive poisons with acids or alkalis**. Instead, flush with lots of water, and if possible, continue flushing en route to medical aid.

1. **If the pesticide was inhaled into the lungs (dusts, vapours, gases)**

* Protect yourself with proper safety gear before attempting rescue, and carry the patient (do not permit walking) to fresh air immediately.
* Loosen all tight clothing.
* If the patient has stopped breathing, start CPR.
* Keep patient as quiet as possible.

1. **Keep the victim warm unless the pesticide increases body metabolism and temperature**.
   * Examples of such chemicals include chlorophenate wood preservatives.
2. **Accompany the victim to the hospital**, and do one of the following:

* Bring along a copy of the material safety data sheet for the pesticide
* Take the pesticide label with you if the MSDS is not available
* Write down and bring along the name of the product, the active ingredient, and its concentration, along with the Pest Control Product (PCP) registration number from the label

1. **Report the incident to WorkSafeBC**

**Fire Response**

A pesticide fire is one of the most dangerous types of fires to fight because

* Smoke from pesticide fires likely contains levels of unburned pesticide.
* All pesticide fires produce acid gases that can irritate the lungs. Some acid gases, such as hydrogen sulfide and hydrogen cyanide, are very toxic to life.
* Many organophosphates can be converted in fires to more toxic chemicals called “oxons.”
* At higher temperatures, containers of some pesticides can explode

**General responsibilities**

If the workplace is within the service area of a fire department, the employer must ensure the department is notified of the nature and location of pesticides and the methods to be used in their safe handling.

Providing the fire department with material safety data sheets for the pesticides on site will assist with meeting this requirement.

**If a fire occurs**

First, evacuate people and animals who are downwind of the fire, and keep bystanders away. Call the fire department, and make it clear that it is a pesticide fire.

**Pesticide Spills**

**Equipment**

Ensure that spill control and cleanup procedures are planned in advance, and that necessary equipment is available in the event of a spill or other release of pesticide.

The label and particularly the material safety data sheet for the pesticide are expected to contain information to assist with developing spill control measures.

Spill control and cleanup equipment should be available for use at sites such as storage/mixing and loading facilities. A minimum kit should include:

* Personal protective equipment (for example, gloves, boots, and respirator)
* Absorbent material
* Neutralizing material
* Long-handled brush
* Shovel
* Waste-receiving container with lid

**Procedures**

1. First, keep other people away from the spill. If the spill occurs on a roadway, prevent vehicles from travelling over spilled material.
2. Before cleanup, review the control procedures and put on the right personal protective equipment. If the spill is inside an enclosed area such as a room or shed, ventilate the area. At minimum, open doors and windows. If explosive levels of flammable materials may be present in the air, ensure the ventilation system is explosion proof.
3. During cleanup, do NOT wash away spilled material. This only spreads the pesticide. Use the B-A-N system:

* **Barricade** or dike the spilled chemical to prevent its spread.
* **Absorb** or soak up as much liquid material as possible.
  + Absorbents include clay, vermiculite, and cat litter. Commercial absorbents are also available that both absorb liquid and suppress vapours.
  + Flammable absorbents such as sawdust, rags, and paper are less desirable than non-flammable varieties.
  + With dusts, wet down before sweeping.
  + Dispose of the absorbent safely. A recommended practice is to place absorbent in sealed, watertight drums.
  + The Regulation requires workplace labels for containers of hazardous wastes. Consult the nearest office of the Ministry of Environment for information on waste disposal procedures.
* **Neutralize** any remaining residues. If possible, use a long-handled brush to scrub the spill area to help minimize inhalation of vapours. Consult the pesticide label and MSDS to determine specific neutralization techniques. The following general comments will serve as guides:
* Many organophosphate pesticides, such as diazinon and azinphos-methyl, can be detoxified with a mixture of washing soda (sodium carbonate) and bleach (sodium hypochlorite).

**WARNING:** Never mix bleach with acidic cleaning agents such as some janitorial cleaning aids. Do not use bleach to treat acidic pesticides such as glyphosate. Dangerous chlorine gas is given off when bleach is mixed with acidic materials.

* Some carbamates such as carbaryl can be detoxified using caustic solutions such as washing soda (sodium carbonate), caustic soda (sodium hydroxide) or strong detergent.

**WARNING:** Many caustics are very corrosive to the skin, particularly the eyes. Wear appropriate protective equipment.

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