



Lesson 2: Pesticide Labels

A pesticide label will give you information about how to protect yourself while working with pesticides.

This lesson will focus on finding the most important principle information on a pesticide label, and what the responsibilities are, according to law, for referring to the pesticide's label.

Key Learning Points

- Understand that all pesticide products must be used according to the directions on the label.
- Find the following principal information on the front of a pesticide label:
 - › Product name
 - › Guarantee Statement (including active ingredient)
 - › Registration (PCP) Number
 - › Precautionary Symbols and Words
 - › Interpret hazard information on the label

The label is your guide

Where can you find everything you need to know to apply a pesticide correctly?
The product label!

You can find everything you need to know to keep yourself, the environment, and others safe by checking the label. All labels must have certain information.

Pesticide labels are legal documents. This means you and your supervisor must follow all the directions on the label. This includes: how much pesticide to apply and under what conditions to apply it and equipping yourself with the correct protective gear.



Glyphosate container: 2005: CropHealth Advising & Research



What's on a pesticide label?

There are two parts to a pesticide label—the principle information and the secondary information. You will focus on information in the principle part of the label.

A. Product Name: The manufacturer's name, a brand name or trademark. It may also include the formulation, use, active ingredient and the concentration of the active ingredient. The product name is registered with Health Canada.

B. Formulation: You learned about formulations in Module 1. There are different kinds of formulations, including liquids (including “solution,” “concentrate,” or “liquid”); solids, including “dust,” “granules,” and “wettable powder”; and gases or other formulations, such as “pressurized products.” Each formulation has its own abbreviation. The label will state the formulation of product—sometimes on its own, and sometimes as part of the product name. (In this example, EC stands for emulsifiable concentrate.)

C. Purpose: This tells you what the pesticide is used for. This is used to kill plants (herbi + cide).

D. Guarantee statement: This lists the active ingredients in the product and their concentrations.

E. Precautionary symbols and words: This combination indicates the type of hazard with a symbol, and the level of hazard by the shape.

F. Directions to read label before use: The federal Pest Control Products Act requires that this statement appear in the principal information on a pesticide label. The label contains key information on proper storage, handling, and use.

G. Registrant's name and address: The name and address of the company or organization that registered the pesticide.

H. Net contents: This indicates the amount by weight or volume of pesticide in a package. This is given in metric units (ml, L, g, kg, etc.) of formulated product in the container.





Hazard Levels

The hazard level of a pesticide is indicated on the label by precautionary symbols. There are three parts to the precautions that you should be familiar with:

The hazard shape tells you whether the hazard is:



The more sides the shape has, the greater the hazard.

Words communicate the risk another way.

- “Danger” = high hazard
- “Warning” = moderate hazard
- “Caution” = low hazard

There is also a precautionary information section on a label; it warns about other hazards, such as allergens or the potential for the substance to cause skin sensitivity. Be sure to read this section.

The hazard symbol tells you the nature of the hazard:

Poison



Flammable



Corrosive



Explosive



Where to find labels

The best place to find a label is on the product container! Storage requirements state that pesticides must be kept in their original containers with their labels attached and visible. If a label becomes damaged or unreadable, ask your supervisor to provide a replacement label.

For some **pesticide classes** of pesticides, more information is found on the Material Safety Data Sheet, or MSDS. The MSDS is not a legal document like the product label, but it provides important information about how to handle the pesticide safely.

MSDS have information about:

- Composition/information on ingredients
- Hazards identification
- First aid measures
- Firefighting measures
- Accidental release (spill) measures



Lesson 2: Pesticide Labels

- Handling and storage information
- Transportation requirements (whether the product is regulated under the Transportation of Dangerous Goods legislation)
- Personal protection
- Physical and chemical properties
- Stability and reactivity of the chemical
- Toxicological information

You'll learn more about the MSDS in Lesson 3.

Summary

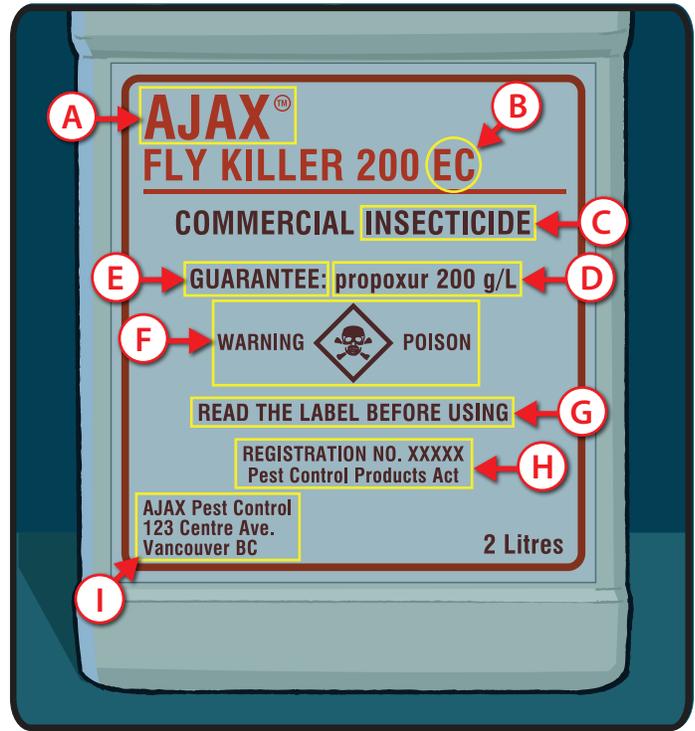
In this Lesson, you learned that a pesticide label is a legal document with required information. You learned how to interpret the hazard symbols on the label, how to find what to wear to protect yourself, and how to respond to emergencies from label directions.



Lesson 2 Practice Activity

1. Label the principle label information.

- A. _____
- B. _____
- C. _____
- D. _____
- E. _____
- F. _____
- G. _____
- H. _____
- I. _____



2. Write the correct hazard and level for each symbol-shape combination:

a.  _____

d.  _____

b.  _____

e.  _____

c.  _____



Lesson 2: Pesticide Labels

For the next 4 questions, use [this sample label](#). If you are working from a print copy of this lesson, you will find the sample label in the appendix at the end of the lesson.

3. What is the purpose of this pesticide?
 - a. Control of weeds on non-crop land.
 - b. Control of insects on lawns.
 - c. Control of deep-rooted perennial weeds on rangeland.
 - d. A pre-emergent herbicide for all broadleaf weeds.

4. What is the active ingredient in this pesticide?
 - a. Torbotrin
 - b. Tryfloxistrobin
 - c. Endosulfan
 - d. Abamectin

5. What is the nature of its hazard?
 - a. Corrosive and flammable
 - b. Corrosive and poison
 - c. Poison and explosive
 - d. Flammable and explosive

6. What is the level of hazards for this pesticide?
 - a. High risk
 - b. Moderate risk
 - c. Low risk



Practice Activity Answer Key

1. Principal label information:
 - a. product name
 - b. formulation
 - c. purpose
 - d. active ingredient
 - e. guarantee statement
 - f. warning/hazard symbol
 - g. direction to read label before use
 - h. PMRA registration number
 - i. name and address of registrant

2.
 - a. danger-flammable
 - b. caution-explosive
 - c. caution-poison
 - d. warning-corrosive
 - e. danger-poison

3.
 - a. Control of weeds on non-crop land.

4.
 - a. Torbotrin

5.
 - b. Corrosive and poison

6.
 - b. Moderate risk



Glossary

principle information: Usually at the front of the label, this contains information that enables an applicator to identify a pesticide in a number of ways, such as by the product name. The principal information also includes hazard warnings.

hazard shape: In the picture showing the hazards associated with the product, the shape indicates the level of hazard.

hazard symbol: In the picture showing the hazards associated with the product, the precautionary symbol indicates the type of hazard.

pesticide class: Federal law classifies pesticide products. Your supervisor will know whether the pesticide to be used is classified as domestic, commercial or restricted. Domestic products are designed and packaged for use by homeowners; commercial products are designed and packaged for use by professional or commercial applicators, e.g. in agriculture, forestry, landscaping, or structural pest management; restricted products require a notice to alert applicators to particular hazards or special requirements for use. To use a restricted product, you must have a pesticide applicator's certificate.



Group	22	Herbicide
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Quali-Tor Selective Herbicide 75 EC

For the control of weeds on non-crop land including: airports, roadsides, railroads, utility rights of way, hard-surface landscapes and lawns

COMMERCIAL



WARNING POISON



WARNING CORROSIVE

**READ THIS LABEL BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

GUARANTEE: Torbotrin 75%

WARNING, Contains the allergen peanuts

Registration No. 291807 Pest Control Products Act

NET CONTENTS: 1 L

DoRite Chemical Company Canada Ltd.
Agricultural Products Division
P.O BOX 6 Quesnel, BC V8Y 2M4
1-800-555-3925

Fictitious Label - for Exam Purposes Only

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

NOTICE TO BUYER: Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.

GENERAL INFORMATION

Quali-Tor Selective Herbicide, mixed with water, may be applied as a post-emergent treatment to provide rapid desiccation of certain weeds on non-crop land including: airports, roadsides, railroads, utility rights of way, hard-surface landscapes and lawns.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

Keep people and pets out of treated areas until the spray has dried. Do not harvest edible plants within 6 metres of treated sites for at least six weeks.

DANGER:

Harmful if inhaled or swallowed. Do not get in eyes, or on skin or clothing. During mixing, loading, and repair, wear rubber boots, rubber suits or rubber aprons over coveralls, chemical-resistant gloves, a respirator with a NIOSH/MSHA/BHSE approved organic vapour-removing cartridge with a prefilter approved for pesticides, a face shield and a cap or hat. During application and cleanup wear rubber boots, coveralls and chemical-resistant gloves. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

Quali-Tor Selective Herbicide adsorbs weakly to soil organic matter. Rainfall can cause leaching. Harmful to aquatic plants. May be toxic to non-target terrestrial plants. May attract large mammals such as deer. Avoid using this product along roadsides in areas where high densities of deer are known to occur. Keep out of lakes, streams, ponds, tidal marshes, and estuaries. Do not contaminate water by cleaning of equipment or disposal of wastes.

FIRST AID

If swallowed, call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If in eyes, hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice. If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Do not store below 0°C. Keep away from direct sunlight, radiators, stoves and other sources of heat. Store in original container and out of the reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills. **CONTAINER DISPOSAL:** Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank
2. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

DIRECTIONS FOR USE

Applications of Quali-Tor Selective Herbicide are most effective when applied in the early spring before flowers begin to develop. Mix Quali-Tor Selective Herbicide with water and apply as directed in the following chart.

Do not enter or allow re-entry into treated areas until 4 hours after application.

Treatment Location	Weed	Treatment Method	Rate
Hard-surfaces including hardscapes, pavement and concrete	Barbed Chiselthorn Sniffleweed	Spot spraying	100 mL/L water sprayed to wet
Vegetated areas adjoining airport runways, roads and on utility rights-of-way	Japanese Knotweed Barbed Chiselthorn Gorse Poison Ivy Scotch Broom	Radiarc® boomless application device	1 L in sufficient water to uniformly treat 1,000 m ²
Railroad rail beds	Horsetail Gorse Scotch Broom	Shrouded boom	1.5 L/10 L water /100 m of track
Lawns in residential areas	Puncturevine Barbed Chiselthorn Sniffleweed	Spot spraying	50 mL/L water sprayed to wet
		Broadcast spray	50 mL/ L water /100 m ²

Apply Quali-Tor Selective Herbicide with an ambient temperature of at least 5°C.

Do not apply in rainy conditions or if rain is forecast within the next 48 hours.

Avoid application of this product when winds are gusty. Provide sufficient agitation during mixing and application to maintain a uniform spray mixture.

Fictitious Label - for Exam Purposes Only



CHEMICAL SOLUTIONS

Killitall WP Herbicide

GROUP	4	HERBICIDE
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For the control of undesirable woody plants and annual and perennial broadleaved weeds on pastures and rangelands, and in non-crop areas such as rights-of-way, military bases and industrial sites.

INDUSTRIAL

READ THE LABEL AND BOOKLET BEFORE USING

KEEP OUT OF REACH OF CHILDREN

GUARANTEE: triclopyr 480g acid equivalent/kg
(present as butoxyethyl ester)

REGISTRATION NO. 21053 PEST CONTROL PRODUCTS ACT

**HARMFUL IF SWALLOWED
MAY CAUSE SKIN IRRITATION
MAY BE HARMFUL IF ABSORBED THROUGH SKIN
POTENTIAL SKIN SENSITIZER**

NET CONTENTS: 1 kg

Chemical Solutions LLC Suite 101, 1400 - 12 Street S
Calgary, Alberta T1S 4L9
1-800-387-8897

Read the Accompanying Pamphlet

PRECAUTIONS

**HARMFUL IF SWALLOWED
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POTENTIAL SKIN SENSITIZER**

KEEP OUT OF REACH OF CHILDREN

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapour or spray mist. Where frequent inhalation of spray mist cannot be avoided, occupational exposure to pesticides can be reduced by use of an air-purifying respirator equipped with organic vapour cartridges. Avoid contact with treated foliage and other contaminated surfaces while wet. When spraying, follow a "walk in, spray out" pattern to avoid contact with treated brush. Take precautions to avoid spray drift. Direct spray outward and away from self. Avoid overhead spraying. Select spray nozzle types and pressures to minimize drift potential. Practice good personal hygiene. At all times when handling herbicide concentrate or applying the dilute mixture, plan events in such a way as to minimize personal exposure. Locate wash stations with an adequate supply of fresh water on work vehicles. Wash thoroughly with soap and water after handling and before eating or smoking. Bathe or take a hot shower after work using plenty of soap. If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's web site at www.croplife.ca.

To minimize exposure when handling and applying Killitall WP Herbicide:

- Read and follow directions in the Protective Equipment Requirements and Operator Use Precautions sections on the label.
- Applicators should receive training on how to minimize personal exposure while applying high volume stem-foliage applied herbicides, including the "walk in, spray out" technique and on how to minimize contact with treated foliage.
- Applicators should be supervised to ensure that all label directions and proper application techniques are followed.
- For broadcast treatment, do not enter or allow worker entry into treated areas during a restricted entry interval (REI) of 12 hours.
- Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.
- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Read the Accompanying Pamphlet

Fictitious Label - for Exam Purposes Only



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Herbicide

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- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

**PROTECTIVE EQUIPMENT REQUIREMENTS
Handling Concentrate**

When handling concentrate, wear goggles or faceshield, chemical resistant gloves (nitrile or neoprene), clean coveralls over normal work clothes, impermeable head covering and chemical resistant boots (rubber) during all mixing/loading activities. Remove clothing contaminated with concentrate promptly and wash before reuse. Exercise care in removal of contaminated clothing to avoid secondary skin contact. Segregate contaminated articles and launder separately from other clothing using a double rinse. Leather articles such as boots, belts or watchbands should be destroyed if contaminated by concentrate.

Applying Dilute Spray Solution

When spraying dilute solution and during equipment maintenance and repair, wear clean coveralls over normal working clothes, impermeable head covering, chemical resistant gloves (nitrile or neoprene) and chemical resistant footwear such as rubber boots.

PHYSICAL OR CHEMICAL HAZARDS

COMBUSTIBLE. Do not use or store near heat or open flame.

FIRST AID

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

TOXICOLOGICAL INFORMATION

The decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. **This product contains petroleum distillates.** No specific antidote. Employ supportive care. Treatment should be based on judgment of the physician in response to reactions of the patient. Do not ship or store with food, feeds, drugs or clothing.

ENVIRONMENTAL HAZARDS

This product is highly toxic to fish, aquatic plants and aquatic invertebrates and is not labelled for application to water surfaces. Keep out of wetlands, lakes, ponds, streams, rivers and wildlife habitats at the edge of bodies of water. Do not contaminate water by cleaning of equipment or disposal of wastes. The use of this chemical may result in contamination of groundwater particularly in areas where soils are permeable (e.g., sandy soil) and/or where the depth to the water table is shallow. Sensitive terrestrial and aquatic habitat must be protected. A buffer zone should be maintained to avoid overspray and drift into these habitats (refer to Ground Application and/or Aerial Application sections on the buffer zone requirements and spray drift control recommendations). Examples of habitat which may border treated areas are shelterbelts, wetlands (e.g., potholes), sloughs, dry slough borders, non-target wooded areas and vegetated areas adjacent to water. This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms. Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning equipment.

Fictitious Label - for Exam Purposes Only