

# Pesticide Labels and Labeling

Labels and labeling provide essential directions for the sale and responsible use of these chemicals. Pesticide users are required by law to follow all the instructions and directions for use in pesticide labeling.

**Pesticide label** is the information printed on the product container. All labels, which are essentially the manufacturer's license to sell, provide the important facts about Distribution, Storage, Sale, Use, Disposal, and Safety Measures Required for the Pesticide.

**Pesticide labeling** refers to any information printed on, attached to, or accompanying your purchase. This may include brochures, leaflets, and other information handed out by the dealer.

## Major Types of Pesticide Registrations

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) has several types of registrations and exemptions that enable pesticides to be used. You are responsible for applying only pesticides registered or exempted from registration by EPA and the state of Kentucky.

- **Section 3 (Federal label)** is the most common registration. An approved and registered product will have an official EPA registration number on the label.
- **Section 18 (Emergency Exemption)** allows the sale and use of a registered pesticide product for a specific non-registered purpose during a specified time period. EPA can issue an emergency exemption at the request of the state for a public health concern or other pest crisis. There are three conditions for these exemptions:
  - No effective registered pesticides are available
  - No feasible alternative control practices are available
  - The situation involves the introduction of a new pest, will present significant risks to human health or the environment, or will cause significant economic loss.
- Regulations impose strict controls and require recordkeeping for all emergency uses. An Emergency Exemption is considered as restricted use and must be applied by certified applicators, even if it a general use pesticide. The Kentucky Department of Agriculture prescribes application rates, safety precautions, and other vital application information. Applicators must have a copy of the Section 18 approval on hand to legally use the product.
- **Section 24(c) (Special Local Needs)** allows states to expand or limit the uses of certain registered pesticides within their jurisdictions. For instance, some SLNs allow uses of pesticides for crops or sites not listed on the label. Others limit the uses of certain pesticides to address local concerns. Manufacturers must provide supplemental labeling for each SLN registration. **You must have SLN labeling in your possession to use a pesticide for that purpose.**
- The registration numbers of special local need labeling include the SLN number and code for the state issuing the registration. These registrations are legal only in the region, state, or local area specified in the labeling. **It is illegal to apply a pesticide that has an SLN registration from other states or regions.**

Read and understand all labeling before buying, using, storing, or disposing of a pesticide.

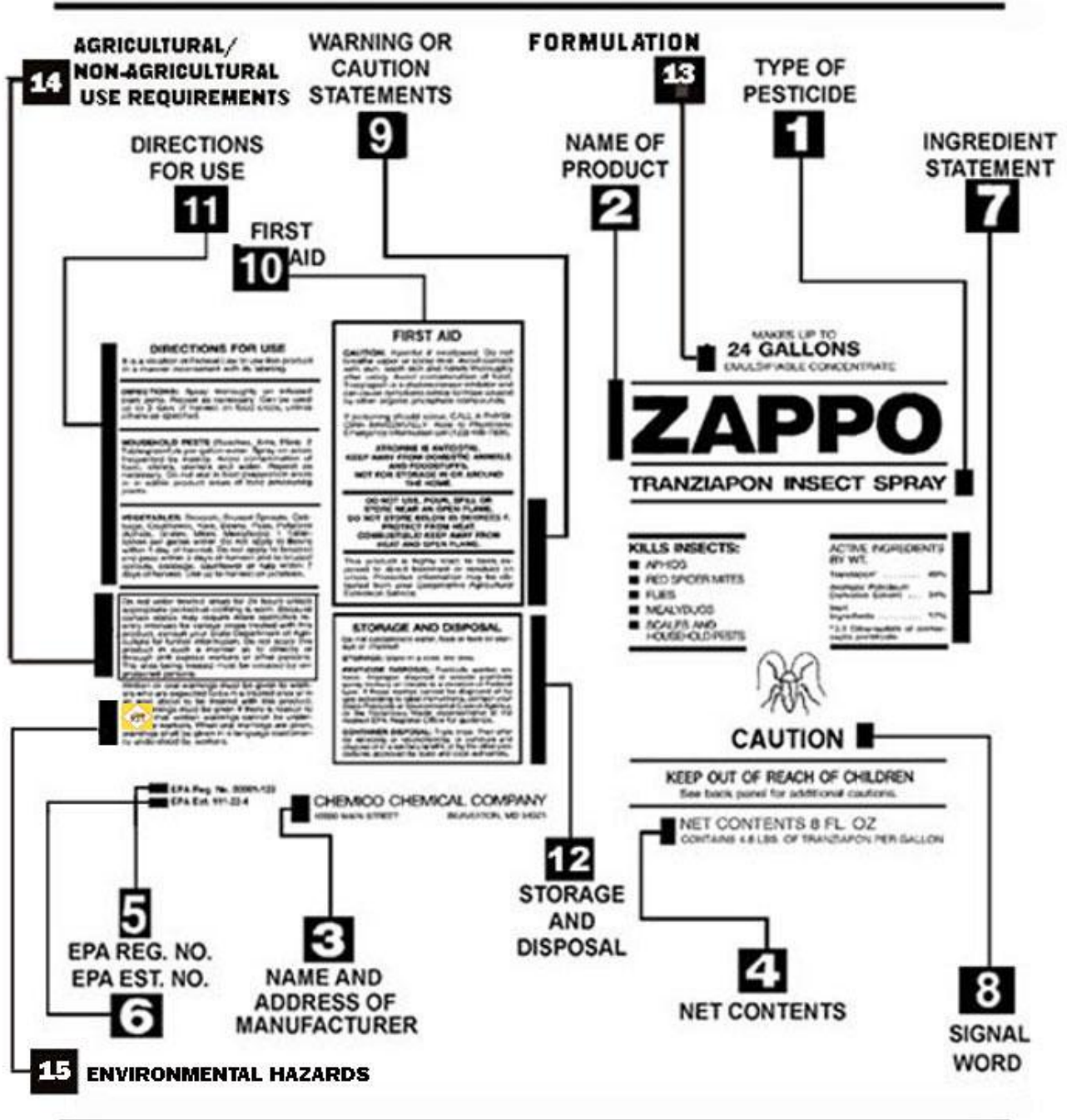


## Read the Label First!

- Make sure the product is registered for your intended use. Confirm that there are no restrictions or other conditions that prohibit using this pesticide at the application site. Find out what PPE and special application equipment you will need.
- Determine what precautions to take to prevent exposure to people and non-target organisms. Learn what first aid and medical treatments are necessary should an accident occur. Be certain the product's use is suitable for weather conditions at the time of application. Also, be sure it controls the appropriate life stage of your pest.
- Find out how to store the pesticide properly. Understand any special precautions to prevent fire hazards
- Learn how to prevent environmental contamination and hazards to people. Check with the KDA for any disposal restrictions and requirements. Find out whether your state has pesticide container recycling and waste disposal programs.

# The Pesticide Label

A pesticide label contains basic information that helps users clearly identify the product. Some of these items will be on the front panel of every label according to EPA requirements. The information on a pesticide label usually is grouped under headings to make it easier to find.



## Restricted-Use Designation

A box at the top of the front panel identifies Restricted Use pesticides. A statement may describe the reason for the classification: groundwater and surface water concerns OR high acute toxicity. Another statement may describe the category of the certified applicator who can buy and use the product. General use pesticides have no designation on the product label.

**RESTRICTED USE PESTICIDE**  
**(Ground and surface water concerns)**

**For retail sale to and use only by certified applicators or persons under their direct supervision and only for the uses covered by the Certified Applicators Certification. This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and instructions for use in order to minimize potential for this product to reach ground and surface water.**

Examples of other restrictive wording include:

**For Pest Management Professionals and Commercial Use Only**

OR

**Intended For Use by Commercial Applicators Only**

## Brand or Trade Name

The brand or trade name shows up plainly on the front panel of the label and is used in advertising. Beware of choosing a pesticide product by brand name alone. Some companies use the same basic name with only minor variations to designate entirely different pesticides. Always read the ingredient statement to determine the active ingredients in a product.

## Type of Pesticide

Usually listed on the front panel, there may be a short statement of what pests the product will control. For example,

**2,4-D Amine Weed Killer**  
**For selective broadleaf weed control**  
**in certain crops, turf, and non-crop areas**

## Active and Inert Ingredients

Pesticides contain both active and inert ingredients. The active ingredient (sometimes more than one in a product) controls the pest. The common name and/or official chemical name for each active ingredient must be listed along with the amount or percentage present in the product.

<b>Active Ingredient: *Dimethylamine salt of 2,4-Dichloro-phenoxyacetic acid</b> .....	<b>47.2%</b>
<b>Inert ingredients</b> .....	<b>52.8%</b>

By purchasing pesticides according to the common or chemical names, you will always be sure to get the right active ingredient. Inert ingredients do not need to be named but the label must show their percent. Not all pesticides with the same active ingredient are labeled for the same uses or rates.

## Net Contents

Tells how much is in the container in dry or liquid units. Liquid formulations also may list the pounds of active ingredient per gallon of product. For example:

* Equivalent to 38.6% 2,4-D acid or 3.74 pounds per gallon
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## EPA Registration Number

Specific for each pesticide. The two sets of numbers, separated by a hyphen, identify the manufacturer and the specific product. The registration number is used in recordkeeping. For example,

EPA Reg. No. 1386-43-72693
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## Pesticide Mode of Action Classification Number

appears on the front panel of some pesticides. This provides growers, advisors, consultants, and crop management professionals with a guide to selection of pesticides for use in resistance management strategies. Pesticides with the same classification number have similar modes of action. Group 3 herbicides are dinitroaniline herbicides which inhibit cell division in roots. Resistance is the result of repeated use of one or more similar pesticides over a number of years. See the [chapter on pesticide resistance](#) for more information.

Group	3	Herbicide
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## Formulation

may be named or the label may show an abbreviation, such as F for flowable, G for granule, or WDG for water dispersible granule.

## Precautionary Statements

Example from a 2,4-D amine product label:

<p><b>Corrosive</b></p> <p>Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Avoid breathing spray mist.</p>
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## Physical or Chemical Hazards

Tells of any special fire, explosion, or chemical hazards the product may pose: e.g. if the product is flammable or corrosive.

## Signal Words and Symbols

Most pesticide labels must include a signal word. The signal words **Danger**, **Warning**, or **Caution** - appear in large letters on the front panel of the pesticide label. They indicate the acute toxicity of the product to humans. The statement **Keep out of reach of children** must be present, also.

**Poison/Skull and Crossbones** - All highly toxic pesticides will carry the word POISON printed in red and the skull and crossbones symbol. PELIGRO, the Spanish word for DANGER, must also appear on the label. The signal word is based on the active ingredient and the contents of the formulated product including carriers, solvents, or inert ingredients.

**Danger** - signal word for a toxic pesticide that is **very likely** to cause acute illness from mouth, skin, or breathing exposure, or to cause severe eye or skin irritation. Products that have the signal word DANGER due to potential skin and eye irritation will not carry the word POISON or the skull and crossbones symbol.

**Warning** – **moderately likely** to cause acute illness from oral, dermal, or inhalation exposure or it is likely to cause moderate skin or eye irritation. AVISO, the Spanish word for WARNING, must also appear on the label.

**Caution** –the product is **slightly toxic** or relatively nontoxic. It has only slight potential to cause acute illness from oral, dermal, or inhalation exposure. Skin or eye irritation also is likely to be slight.

The EPA has determined that signal words are not required on the labels of pesticides identified under FIFRA section 25B as exempt or minimum risk. A few new products such as the caterpillar-specific insecticide, chlorantraniliprole, also do not have signal words.

## Statement of Practical Treatment (First Aid)

First aid measures, may include instructions to seek medical help.

- ***Hazards to humans and domestic animals*** - warns of possible poisoning to humans and animals. Special precautions, including necessary protective equipment, appear here. The proper poison treatment is listed if the product carries serious risk.
- ***Acute effects*** – indicates routes of entry (mouth, skin, eyes, lungs) to protect and specific action needed to avoid acute effects from exposure.
- ***Delayed effects*** - warns of the potential to cause problems such as tumors or reproductive problems in laboratory animals.
- ***Allergic effects*** – indicates the potential to cause allergic effects: skin irritation, asthma. Sometimes the labeling refers to allergic effects as "sensitization."

## Personal Protective Equipment Statements

Gives the minimum protection needed when using the pesticide. The statements may require different equipment for different pesticide handling activities. For example, an apron may be required only during mixing, loading or equipment cleaning. Wear the specified personal protective equipment even though you may be risking only your own safety by not wearing it.

## Agricultural Use Requirements Section

If a pesticide label has an Agricultural Use Requirements box, then some or all of its uses are subject to the federal Worker Protection Standard. This section contains required statements on restricted entry interval (REI), early entry personal protective equipment, and notification-to-workers. The **restricted entry interval** is the period immediately following a pesticide application during which entry into the treated area is restricted.

For example:

AGRICULTURAL USE REQUIREMENTS
Use this product only in accordance with its labeling and the Worker Protection Standard. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, or greenhouses and handlers of agricultural pesticides.
Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.
PPE required for early entry to treated areas that is permitted under the Worker Protection Standard that involves contact with anything that has been treated, such as plants, soil, or water is:
Coveralls over short sleeved shirt and short pants
Chemical-resistant gloves made of any water proof material
Chemical-resistant footwear plus socks
Protective eyewear
Chemical resistant headwear for overhead exposure

***Pesticide handlers:*** mix, load, or apply agricultural pesticides; clean or repair pesticide application equipment; or assist with the application of pesticides.

***Agricultural workers:*** perform tasks related to growing and harvesting plants on farms or in greenhouses, nurseries, or forests.

***Workers*** include anyone employed for any type of compensation (including self-employed) doing tasks such as carrying nursery stock, repotting plants, or watering, or other tasks directly related to the production of agricultural plants on an agricultural establishment.

***Dual use pesticides*** have separate boxes for Agricultural Use and Non-agricultural Use requirements. In this example, entry into the area is allowed once the spray has dried.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply only to uses of this product only that are NOT in within the scope of the Worker Protection Standard for agricultural pesticides. ... The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

NOTE: For application to turf being grown for sale for commercial use as sod, follow AGRICULTURAL USE REQUIREMENTS ON THE LABEL.

## Environmental Hazards

Indicates precautions for protecting the environment when using the pesticide. Most labels warn you not to contaminate water when applying the pesticide, cleaning equipment, or disposing of pesticide wastes. The label will contain specific precautionary statements if there is a specific hazard to the environment.

Example: *Most cases of groundwater contamination involving phenoxy herbicides have been associated with mixing/loading and disposal sites.*



Many pesticides are highly poisonous to honey bees and other pollinators. A bee icon appears on a pesticide label to signal that the product is potentially hazardous to bees. Look for requirements under the "Directions for Use" section of the label. Example warning:

**Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met.**



## Directions for Use

Explains correct use of the product, lists pests controlled, application sites, when and how much to apply, and harvest restrictions. The use directions and instructions are requirements. Below it is the statement "It is a violation of Federal Law to use this product in a manner inconsistent with its labeling."

Examples from different pesticide labels:

<p><b>Observe pre-harvest interval of 28 days.</b></p> <p><b>Limited to 2 applications per season.</b></p> <p><b>Apply at 7 to 14 day intervals as necessary.</b></p> <p><b>Maximum allowed per crop season: 11.2 fl oz – 0.088 lb ai per acre.</b></p>
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## Storage and Disposal

All pesticide labels contain some instructions for storing the pesticide. Example:

<p><b>Do not store below temperature of 25°F</b></p>
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Labels also contain some general information about how to dispose of excess pesticide and the pesticide container in ways that are acceptable under federal regulations. State and local laws vary, however, so the labeling usually does not give exact disposal instructions.