

Module 4 Pesticide Label

Information on safe use of pesticides

Module 4 Overview

- Pesticide definitions
- Label rules
- Recordkeeping
- Storage & PPE
- Green/Yellow/Red categories



What is a Pesticide?

- Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.
- Any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.
- Any nitrogen stabilizer.
- A product is likely to be a pesticide if the labeling or advertising:
 - Makes a claim to prevent, kill, destroy, mitigate, remove, repel or any other similar action against any pest.
 - Indirectly states or implies an action against a pest.
 - Draws a comparison to a pesticide.
 - Pictures a pest on the label.

Not considered pesticides

- **Drugs** used to control the diseases of humans or animals, which are regulated by the FDA
- **Fertilizers** and soil nutrients
- **Certain low-risk substances** such as cedar chips, garlic and mint oil are exempted from regulation by EPA (*requires license*)
 - *25b classification requires no signal word (mostly food-safe compounds)*
- Pest control **devices** (i.e., mousetraps) are not pesticides, but subject to labeling requirements

FIFRA Basics

Regulates sale & use of pesticides

EPA registration required

Must not cause unreasonable adverse effects

Not all pesticides are equally toxic!

First rule of toxicology: The dose makes the poison

All things are poison, and nothing is without poison; only the dose permits something not to be poisonous.



So how do we measure this?

LD₅₀

A measurement of relative toxicity
used by toxicologists today

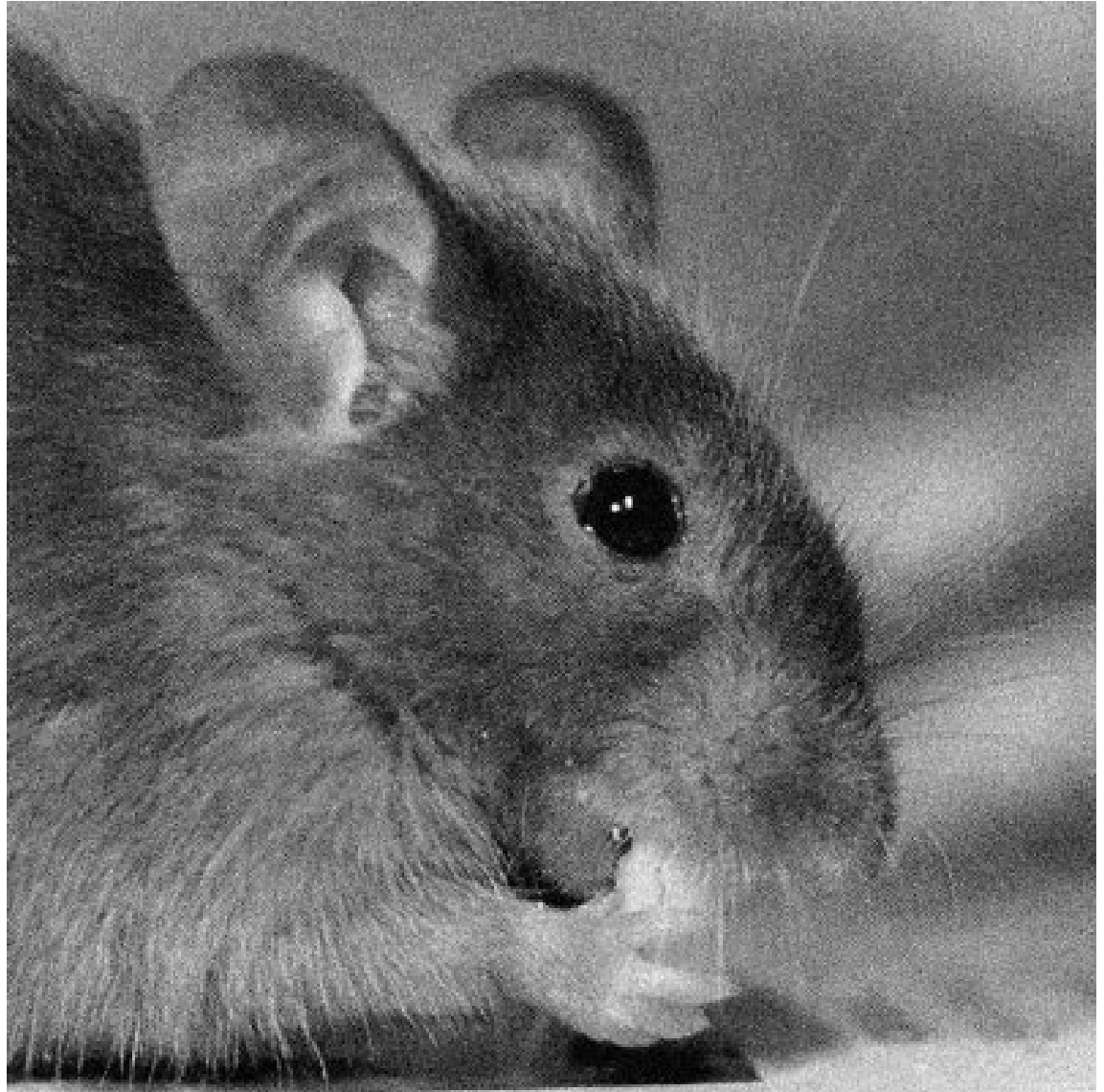
Lethal Dose 50 - The amount of
material needed to kill half of a test
population. A statistically valuable
estimate of average toxicity.



Mg/Kg

Most common unit used in LD50s.

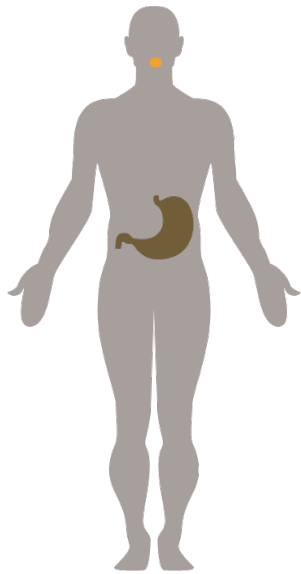
Amount of toxin (in milligrams) per Kilogram of body weight of the test subject (same as parts per million)



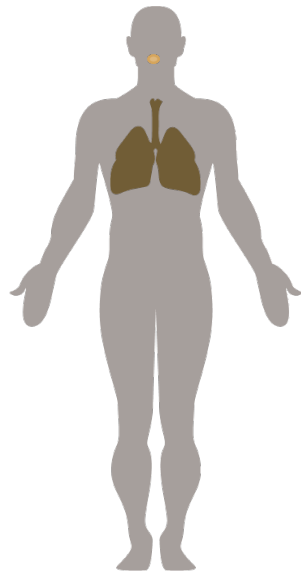
SIGNAL WORDS

Hazard Indicators	Highly Toxic 1	Moderately Toxic 2	Slightly Toxic 3	Practically Nontoxic 4
Signal Word	DANGER (Poison Skull & Crossbones)	WARNING	CAUTION	CAUTION or no signal word
Acute Oral LD₅₀	0 - 50 mg/kg	> 50 - 500 mg/kg	> 500 - 5000 mg/kg	> 5000 mg/kg
Acute Dermal LD₅₀	0- 200 mg/kg	> 200 - 2000 mg/kg	> 2000 - 5000 mg/kg	> 5000 mg/kg
Acute Inhalation LC₅₀	0- 0.05 mg/liter	> 0.05 - 0.5 mg/liter	> 0.5 - 2 mg/liter	> 2 mg/liter
Primary Eye Irritation	Corrosive: corneal opacity or irritation persisting for more than 21 days	Corneal involvement or other eye irritation clearing in 8-21 days	Corneal involvement or other eye irritation clearing in 7 days or less	Minimal effects clearing in less than 24 hours
Primary Skin Irritation	Corrosive (tissue destruction into the dermis and/or scarring)	Severe irritation at 72 hours (severe erythema or edema)	Moderate irritation at 72 hours (moderate erythema)	Mild or slight irritation at 72 hours (no irritation or slight erythema)
Approximate Oral Dose that can kill the average adult human	A few drops to teaspoon full (even on skin contact)	More than 1 teaspoonful to 3 teaspoonfuls	More than 1 oz to 1 pint or 1 pound	More than a pint or pound

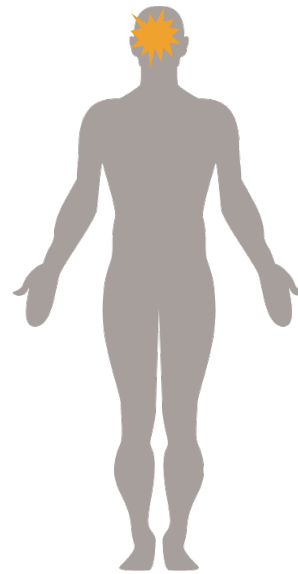
Routes through which pesticides can enter the body



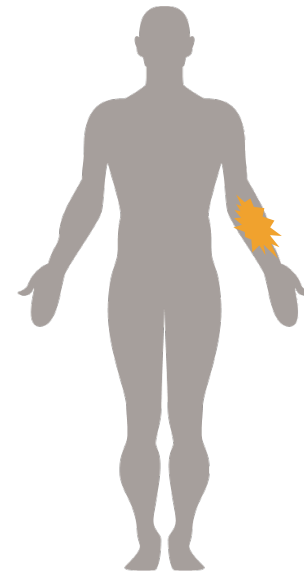
Oral



Inhalation



Ocular



Dermal

Most common site of exposure



Personal Protective Equipment

- Appropriate clothing
 - Long pants
 - Chemical resistant shoes
 - Long-sleeved shirt
- Protective gear
 - Chemical resistant gloves
 - Goggles
 - Pesticide-rated respirator



Gloves should be

- Resistant to organic solvents
- Unlined
- Long enough to protect wrists, arms
- Best:
 - Natural rubber
 - Butyl
 - Nitrile



PPE - Respirators

- For toxic dusts, sprays
- NIOSH approval number
- Rated for pesticides
- Look for tight seal
- Must have pre-filter and organic vapor cartridge
- For TDA or other health inspection purposes make sure respirator is stored properly on truck.





Goggles

- Not the same as safety glasses
- Use when directed by label
- Often used with respirator



Coveralls

- Recommended for most applications
- Remove and wash after use
- Tyvek[®] lightweight, relatively inexpensive and washable
- Wash pesticide contaminated clothes separately
 - Hot water
 - Two cycles

Pesticide Storage Guidelines

- Establish a suitable storage site
- Must be secure
- Temperature must be controlled
- Nonporous flooring
- Runoff protection
- Separate storage for pesticides, food, feed, seed, fertilizer and equipment



Pesticide Storage Guidelines

- Use original containers only
- Labels must be kept on containers--intact and legible
- Watch for container damage
 - (tears, leaks, rust)
- Keep good inventory
- Consider pesticide shelf life



A model storage building

Store dry materials on top shelves, liquids on bottom

Metal shelving to facilitate cleaning

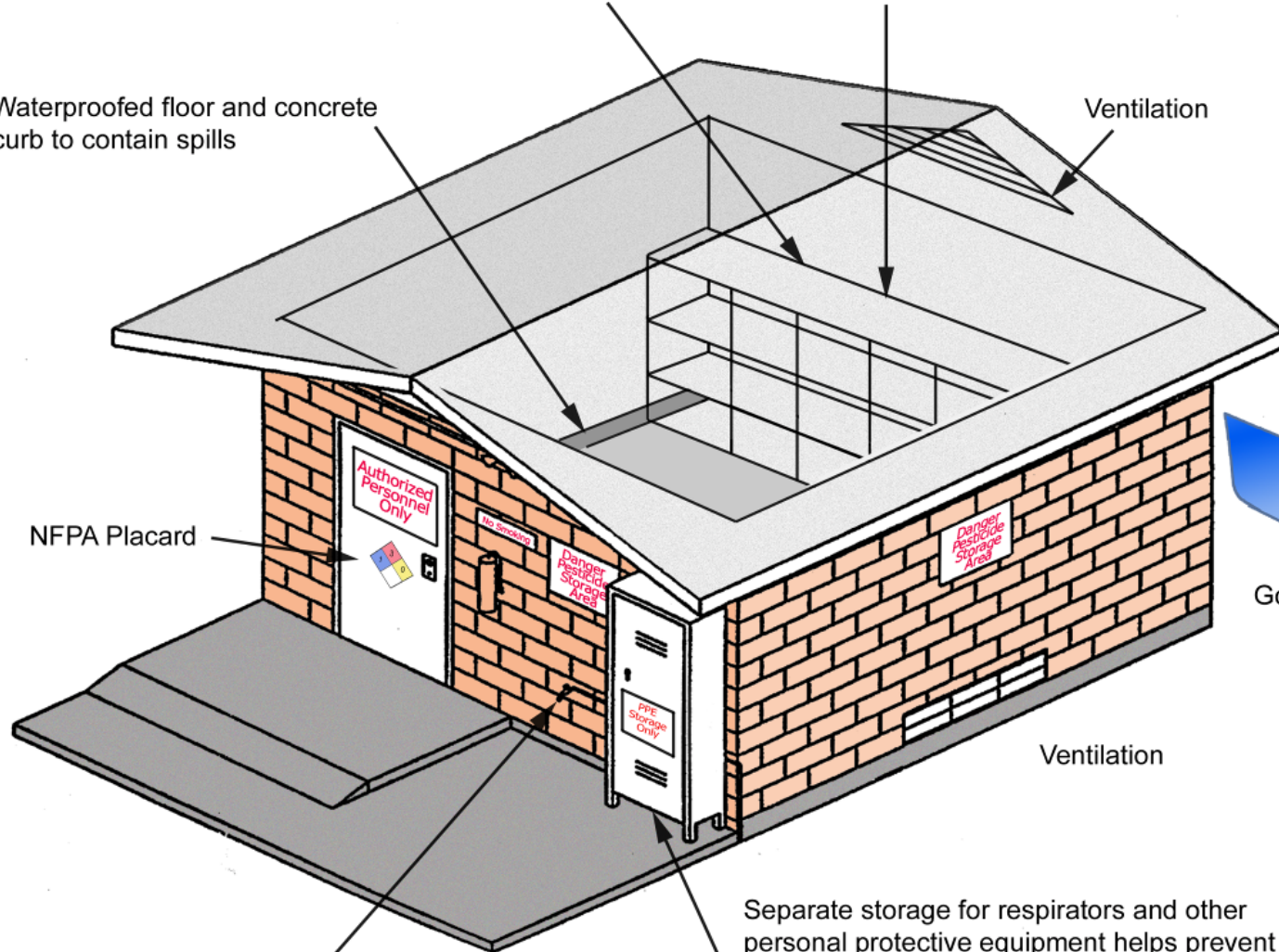
Waterproofed floor and concrete curb to contain spills

Ventilation

NFPA Placard



Good site drainage



Ventilation

Separate storage for respirators and other personal protective equipment helps prevent contamination

Back-siphon prevention devices on all water sources

Pesticide labeling



Pesticide labeling

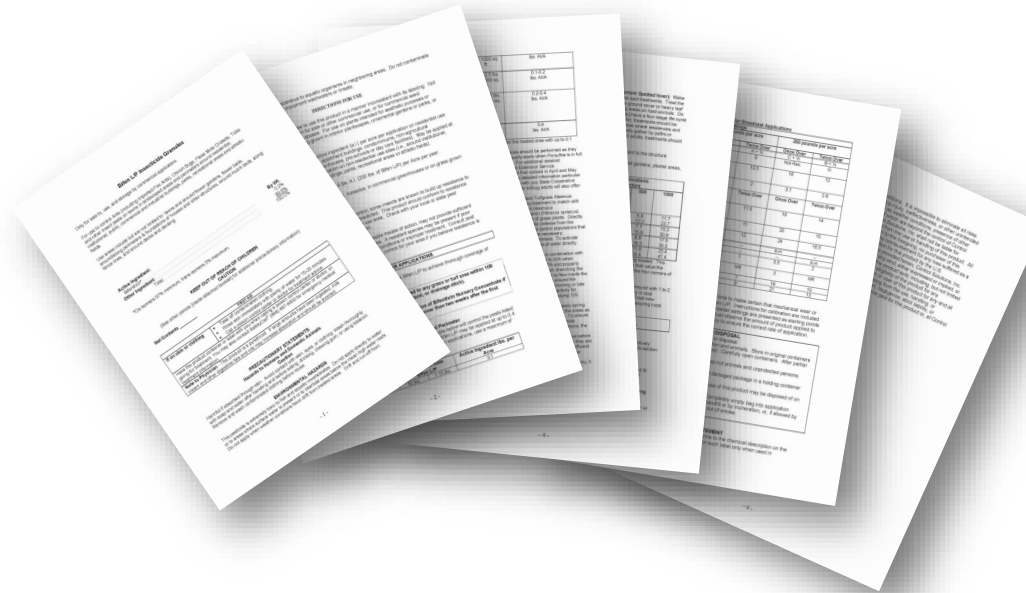
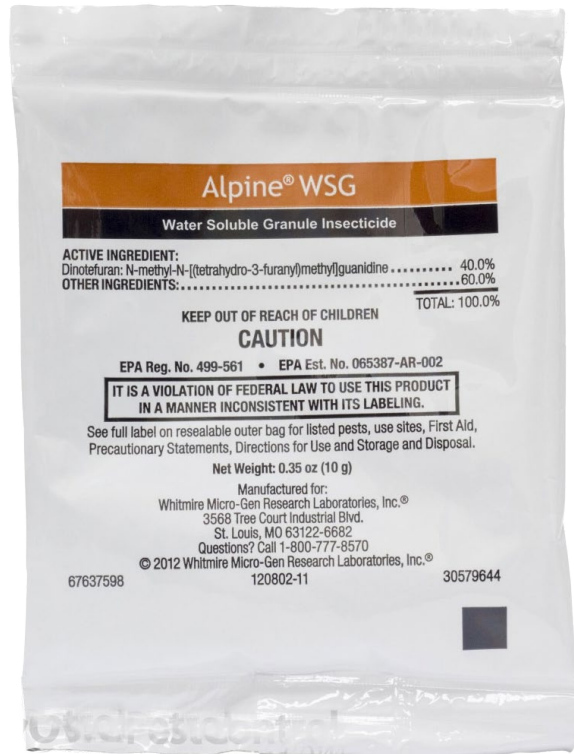
Most important source of
information about a pesticide

The label is the law!

Read the label

- before you buy/sell the product
- before you use the product
- before you dispose of the product

Pesticide Labels may be extensive documents or text printed directly on the pesticide container



Legal considerations

- Use of any pesticide inconsistent with its label is prohibited by federal and state law
- Deliberate violations of the label can result in heavy fines, imprisonment, or both

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

Do not spray on plastic, painted, or varnished surfaces or directly into any electronic equipment such as radios, televisions, computers, etc. Product should only be used when can temperature is above 60°F. If can temperature is below 60°F, store at room temperature until a temperature above 60°F is reached.

HOW TO USE WHITMIRE MICRO-GEN CRACK AND CREVICE® INJECTION SYSTEM: Use Whitmire Micro-Gen PI.™ with the supplied actuator and injection tubes or other Whitmire Micro-Gen equipment. Inject PI.™ into cracks and crevices or void spaces where insects may be harboring, living and breeding. Place injector tip into cracks, crevices, holes and other small openings. Apply product for one second. For light infestations move injector tip along cracks while treating at the rate of three linear feet per second. For heavy infestations move injector tip along at one linear foot per second. For wall and equipment voids calculate the void's cubic area and treat at the rate of five to ten seconds per three cubic feet. Several holes may be required in long-running voids. Repeat as necessary.

FLYING INSECTS (Cluster Flies, Flies, Fruit Flies, Gnats, Mosquitoes, Small Flying Moths): *SPACE TREATMENT:* Close all windows and doors and direct fog upward at a rate of 1 to 3 seconds per 1000 cu. ft. Disperse in all locations. Keep area closed for 15 min. Open and ventilate before reoccupying. Repeat treatment as necessary.

ANTS, BOOKLICE, CENTIPEDES, CLOVER MITES, CRICKETS, MILLIPEDES, ROACHES, SILVERFISH, SOWBUGS, AND SPIDERS: Inject into cracks and crevices in all hiding places behind baseboards, sinks, cabinets, meter boxes, door frames, windows. *SPACE TREATMENT:* Open cabinets and doors in area to be treated. Turn off air conditioners and fans and close doors and windows before treating. Apply at the rate of 20 seconds per 1000 cu. ft. of space. Disperse toward area suspected of harboring the greatest insect infestations. Disperse in all locations contacting as many insects as possible. Keep area closed for 15 minutes. Open and ventilate the treated area before reoccupying. Repeat treatment as necessary.

Pesticide label review

1. Trade name
2. Ingredients
3. Manufacturer name and address
4. EPA Establishment No
5. EPA Registration No.
6. Special consideration
7. Directions for use
8. Child Warning Statement
9. Front panel precautionary statements
10. Statement of Practical Treatment

7 DIRECTIONS FOR USE CONTINUED

ALFALFA Alfalfa Weevil Larvae
Spray on Alfalfa Weevil Larvae. For
Alfalfa and on New York state for
Small Beetle Control. Apply the
amount of De Pesto indicated in the
chart, when feeding is noticed or
when plants appear. Alfalfa weevil
larvae - Apply 1.2 ounces per acre when
plants appear. Lygus Bugs - Apply 2
ounces per acre prior to bloom. Observe
the indicated number of days after ap-
plication before cutting or grazing. Do
not apply more than one application.
Apply only to fields planned to store
brands of Alfalfa.

Yield of De Pesto	Do Not Cut or Graze
1	7 days
2	14 days
3	21 days

RED CLOVER See the chart for use
The chart for use of De Pesto on
Red Clover is as follows: Apply 1.2
ounces per acre when feeding is
noticed or when plants appear. Lygus
Bugs - Apply 2 ounces per acre
prior to bloom. Observe the in-
dicated number of days after ap-
plication before cutting or grazing.
Do not apply more than one applica-
tion. Apply only to fields planned to
store brands of Alfalfa.

**MINIMUM GALLONAGE REQUIRE-
MENT:** Ten gallons of finished water per
acre with ground application. Ten gallons
per acre with aerial.

FIELD CORN: Corn Infestations - Use
1.2 ounces of De Pesto per 12,000 sq.
ft. of planting, as a 7 inch band
over the row for corn on each side of
the row by mixing with water or use
as a foliar spray. When De Pesto is used
as a foliar spray, mix in the foliar
spray with water and apply to the
corn at intervals of 7 to 10 days.
Apply the amount of De Pesto in-
dicated in the chart along with water.
Maintain adequate irrigation after
application. Do not use until
ready to use.

SWEET CORN: See the chart for use
The chart for use of De Pesto on
Sweet Corn is as follows: Apply 1.2
ounces per acre when feeding is
noticed or when plants appear. Lygus
Bugs - Apply 2 ounces per acre
prior to bloom. Observe the in-
dicated number of days after ap-
plication before cutting or grazing.
Do not apply more than one applica-
tion. Apply only to fields planned to
store brands of Alfalfa.

SUGARCANE: Sugarcane Borer - Apply
1.2 ounces of De Pesto per acre when
ground or aerial application. Check
sugarcane fields weekly, beginning in
early June and continuing through
August. Make first application only at
the visible larval stage and 5% or more
of the plants are infested in young
larvae feeding in or under the leaf
sheath and which have not bored into
the stalks. Repeat applications. Field
checks indicate the infestation ex-
ceeds 5%. Do not apply within 12
days of harvest. Do not use in excess.

6 RESTRICTED USE PESTICIDE
FOR RETAIL SALE TO AND APPLICATION ONLY BY
CERTIFIED APPLICATORS OR PERSONS UNDER THEIR
DIRECT SUPERVISION

1 DE PESTO
INSECTICIDE
EMULSIFIABLE CONCENTRATE

2 ACTIVE INGREDIENT: pestoff-tri-salicylic acid	45.0%
INERT INGREDIENTS:	55.0%
TOTAL:	100.0%

THIS PRODUCT CONTAINS 4.0 LBS OF PESTOFF PER GALLON

**KEEP OUT OF REACH OF CHILDREN
DANGER - POISON**

10 STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Induce vomiting by giving a teaspoonful of salt in a glass of
warm water. Rinse with warm water. Call a physician immediately.

IF INHALED: Remove to fresh air. Call a physician immediately.

IF IN EYES: Flush eyes with plenty of water for at least 15 minutes. Call a
physician immediately.

IF ON SKIN: In case of contact, remove contaminated clothing and immediately
wash with soap and water.

SEE SIDE PANEL FOR ADDITIONAL
PRECAUTIONARY STATEMENTS

**3 MFG BY A Z CHEMICALS
TOWN, STATE**

4 EPA EST. NO. 00475

5 EPA REGISTRATION NO. 135742

NET CONTENTS, ONE GALLON

9 PRECAUTIONARY STATEMENTS (DANGER)

Poisonous by swallowing or inhaling. Do not breathe spray mist. Do not get in eyes. Avoid contact with skin. Wear a mask or respirator if a type passed by the Mining Enforcement Safety Administration and the National Institute for Occupational Safety & Health for De Pesto. For more information, call 1-800-555-5000.

11 ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds and other wildlife. Birds feeding on treated areas may be killed. Keep out of area. Avoid water. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by washing of equipment or disposal of waste. This product is toxic to bees and should not be applied when bees are active on the area.

PHYSICAL OR CHEMICAL HAZARDS

Flammable. Keep away from heat or open flame.

DIRECTIONS FOR USE

This is a restricted use pesticide. Use only in accordance with the label.

12 RE ENTRY STATEMENT

Do not enter area within five days after application.

CATEGORY OF APPLICATOR

For use only by agricultural pest control experts.

13 STORAGE AND DISPOSAL

STORAGE: Store in original container. Do not store near food, feed or feed or other products intended for consumption by humans or animals.

DISPOSAL: Dispose by burning in a safe place.

OR

Contact Local, State or Regional Pesticide Action Unit for local restrictions on disposal.

Recordkeeping Laws

- Required by EPA & TDA
- Amounts, mix rates, pest species, applicator names, times,
- Outdoors start and stop times

SPAT-01

**TEXAS A&M
AGRILIFE
EXTENSION**

**Structural Pest Control Service
Pesticide Use Record Keeping Form**
Dr. Don L. Renchie

Name and Address of Customer,
including city and county

Name and license number of Applicator

Service Address, including city and county

Form updated 2/18/09

Date Month/ Day/Year	Time of Day	EPA Registration Number	Product Name and Number of Devices	Amount of Product or Device Used	Mixing rate or percent active ingredient and total amount applied	Target Pest of the Product or Device Used	Active Ingredient (AI)

Comments: {Example: Weather Conditions (Wind Speed, Wind Direction, Temperature)} [Measurement of device(s) used and diagram area on back of page]

Texas Rule §7.144

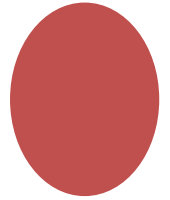
TAC RULE [HISTORICAL](#) [TEXAS REGISTER](#) [VIEW PDF](#)

Title 4 AGRICULTURE
Part 1 TEXAS DEPARTMENT OF AGRICULTURE
Chapter 7 PESTICIDES
Subchapter H STRUCTURAL PEST CONTROL SERVICE
Division 3 COMPLIANCE AND ENFORCEMENT
Rule 57.144 Pest Control Use Records
Previous Rule [View Rule](#)
Next Rule [View Rule](#)
Chapter Review Date 01/10/2017

- List billing info, contact info
- EPA reg numbers
- Mix rates
- Applicator license numbers
- Service address where the pesticides and/or devices were used
- total amounts of each pesticide applied
- Target Pest (s) exact names
- Report conducive conditions

Weather Requirements

- Wind direction/velocity
- Temperature



Restricted Products for Texas

- TAC Title 4, Part 1, Chapter 7, Subchapter D, Rule §7.30
Classification of Pesticides
 - State-Limited-Use Pesticides Defined by Active Ingredient.
 - Regulated Herbicides.
 - Prohibited Pesticides.
- TAC Title 4, Part 1, Chapter 7, Subchapter H, Division 3, Rule §7.150, General Standards for Use of Pesticides
 - a. Use of a pesticide shall be made consistent with the pesticide's labeling. Use inconsistent with the label includes, but is not limited to:
 1. applications at sites, rates, concentrations, intervals, or under conditions not specified in the labeled directions;
 2. tank mixing of pesticides, or using application techniques, or equipment prohibited by the label; or
 3. failure to observe reentry intervals.
 - b. It shall be a violation for any person to use or cause to be used a pesticide in a manner inconsistent with any permit or emergency exemption issued by the department or the Environmental Protection Agency.
 - c. A pesticide shall not be used if the complete label is not available and the pesticide's identity is unknown. The words "Unknown Pesticide - Hazardous Material" shall be written on the container. The pesticide shall be stored and disposed of in accordance with all state and federal laws.

Storage Reminders

- Dispose of old products
- Fire departments need accurate inventories



Green, Yellow and Red

Red Category

- Warning/Danger Signal Word, 8-hour reentry after application ends
- Justification form, must post at time of application
- Coordinator and Applicator must approve before application of product

Yellow Category

- Caution Signal Word, 4-hour reentry after application ends
- Justification form, must post at time of application

Green Category

- Caution Signal Word, Can reenter after application
- Inorganics, IGRs, Botanical >5% synergist, microbe-based insecticides, pesticide soap, natural or synthetic horticultural oils, or insect and rodent baits in tamper-resistant containers/crack & crevice



Some terms

Contact - you get what you hit

Residual - continues to kill on surfaces after dry

Systemic - refers to water soluble insecticides that are taken up in plant's phloem system

Translaminar - some movement into leaf, controlling insects on inside of leaf or on leaf undersides

Green Category Pesticides.

- i. Definition: A pesticide will be designated as a Green Category pesticide if it meets the following criteria:
- ii. it contains a CAUTION signal word on the product label, unless no signal word is required to appear on the product label as determined by EPA; and
- iii. it consists of the active ingredient boric acid; disodium octoborate tetrahydrate or related boron compounds; silica gel; diatomaceous earth; or belongs to the class of pesticides that are insect growth regulators; microbe-based insecticides; botanical insecticides containing no more than 5% synergist (and does not include synthetic pyrethroids); biological (living) control agents; pesticidal soaps; natural or synthetic horticultural oils; or insect and rodent baits in tamper-resistant containers, or for crack-and-crevice use only;



Green Category Restrictions

Approval for Use: Green Category pesticides do not require prior written approval. These pesticides may be applied at the licensee's discretion under the guidelines of the school district IPM program.

(I) Green Category pesticides may be applied indoors if students are not present and are not expected to be present in the room or treated area at the time of application. Reentry into the treated area is permitted as soon as the application is complete, the pesticide spray has dried, or the reentry interval specified on the pesticide label has expired, whichever interval is longer.

(II) Green Category pesticides may be applied outdoors if students are not present within ten (10) feet of the application site at the time of treatment. Students are allowed reentry into the treated area as soon as the application is complete, the pesticide spray has dried or the reentry interval specified on the pesticide label has expired, whichever interval is longer.



Certain inorganic pesticides

- Examples
 - Boric acid
 - Disodium octoborate tetrahydrate (borates)
 - Silica aerogel
 - Diatomaceous earth
- Stomach poisons (borates and boric acid)
- Sorptive dusts (silica aerogel, diatomaceous earth) that absorb the waxy layer from the cuticle of pests.
- Derived from minerals or chemical compounds that occur as deposits in nature



Avermectins

- Examples
 - avermectin (Advance, Avid, Vendetta)
 - Ivermectin (pets and head lice)
 - milbemectin (Safer Caterpillar Killer)
- Nerve toxin, chloride channel activators
- Microbe bases
 - avermectin derived from fermentation of *Streptomyces avermitilis*, a soil microorganism
- milbemectin is a reduced-risk product



Spinosyns (Naturalyte class)

- Examples
 - Monterey Garden Insect Spray
 - Conserve SC Spinosad Insecticide
- Nerve toxin at site of nicotinic acetylcholine receptor
- Leaf residual 2-16 days
- Safe for many beneficials, toxic as direct spray to honey bees
- Okay to use in vegetable gardens for fire ants
- OMRI Certified





Juvenile hormone mimics

- Examples:
 - Hydroprene (Gentrol[®])
 - pyriproxifen (Distance[®])
 - methoprene (Altosid[®])
 - Tebufenozide (Confirm[®] 2F caterpillar control)
- Insect growth regulators, disrupt egg formation, adult transformation
- Variable residual life
- Relatively safe for beneficials

Botanicals ("organic")



- Pesticides derived from plants
 - pyrethrins
 - neem extracts
 - various plant oils
 - rotenone
 - limonene, linalool
 - Mint oils
 - citrus oils
 - clove oil
 - 2-phenethyl propionate
 - other essential oils
- Various modes of action
- Usually short-residual
- Short residuals usually mean minimal impact on beneficials





Pyrethrum (pyrethrins = natural)

- From ground-up flowerheads of pyrethrum daisies
- A natural combination of six compounds: pyrethrins I and II, jasmolin I and II, and cinerin I and II
- More uses approved than any other insecticide
- Usually includes a “synergist” to keep insects from detoxifying it

ACTIVE INGREDIENTS:
Etofenprox (CAS# 80844-07-1)
Tetramethrin (CAS# 7696-12-0)
Piperonyl butoxide (CAS# 51-03-6)
OTHER INGREDIENTS*:
TOTAL:

*Contains petroleum distillates

KEEP OUT OF REACH OF CHILDREN
SEE BACK PANEL FOR PRECAUTIONARY STATEMENTS

NET CONTENTS 16 FL OZ



What's a Synergist



- A synergist is anything added to a substance for increasing the effectiveness of one or more of its properties. Most insecticide synergists block insect enzymes that detoxify some active ingredients.
- Examples of pesticide synergists
 - Piperonyl butoxide (PBO)
 - Sesamex
 - MGK-264, N-Octyl bicycloheptene dicarboximide

Yellow Category Pesticides

Definition: A pesticide will be designated as a Yellow Category pesticide if it meets the following criteria:

(I) it contains a CAUTION signal word on the product label, unless no signal word is required to appear on the product label as determined by EPA; and

(II) it does not meet the criteria to be designated as a Green Category pesticide under subparagraph (A)(i) of this paragraph.

Approval for Use: Yellow Category pesticides require written approval from the certified applicator prior to their use. Yellow Category pesticide approvals shall have a duration of no longer than six (6) months or six (6) applications per site, whichever occurs first.

Yellow Category – Restrictions

- I. Yellow Category pesticides may be applied indoors if students are not present or not expected to be present in the room or treated area within the next four (4) hours following the application, or until the reentry interval specified on the pesticide label has expired, whichever interval is longer.
- II. Yellow Category pesticides may be applied outdoors if students are not present or not expected to be present within ten (10) feet of application site and the area is secured and reentry is in accordance with this section for no less than four (4) hours, or until the reentry interval specified on the pesticide label has expired, whichever interval is longer.
- III. The treated **area must be clearly posted at all entry points** with a sign, or secured using a locking device, a fence or other practical barrier such as commercially available barrier caution tape, or periodically monitored to keep students out of the treated area until the allowed reentry time.

Yellow Category

- Definition: A pesticide will be designated as a Yellow Category pesticide if:
 - it does not meet the criteria to be designated as a Green Category and...
- Carries a CAUTION signal word on the label, unless no signal word is required to appear on the product label as determined by EPA
 - Includes pyrethroids, common herbicides
- Requires justification

APPROVAL FOR YELLOW AND RED CATEGORY PRODUCTS

Description of pest problem: _____

Justification for use: _____

Application Site or Area: _____

Name of Pesticide: _____

EPA Registration #: _____

Green Category pesticides may be used at the discretion of the licensee.

Use of **Yellow Category** pesticides requires written approval from the Certified Applicator prior to their use. **Yellow Category** approvals shall have duration of no longer than six (6) months or six (6) applications per site, whichever occurs first.

Use of **Red Category** pesticides requires written justification by the licensee to the IPM Coordinator and signed approval from the IPM Coordinator prior to application. **Red Category** approvals shall have a duration of no longer than three (3) months or three (3) applications per site, whichever is first.

Approval of Certified Applicator: _____ Date: _____
(**Yellow and Red Category** Products)

Approval of IPM Coordinator: _____ Date: _____
(**Red Category** Products)

Forwarded to: IPM Coordinator **Yellow and Red Category** Products

Approvals shall be kept by the IPM Coordinator of the district for a minimum of two (2) years.

Pyrethroids

– Synthetic
(not natural)



- Broad spectrum replacements for Dursban®
 - permethrin
 - cyfluthrin
 - bifenthrin
 - allethrin
 - sumithrin
 - tetramethrin
 - esfenvalerate
 - Good residual in soil, on leaves
 - Affects nerves at sodium channel
-
- Low in toxicity to birds and mammals, but hazardous to fish
 - Bind tightly to organic matter in soil, difficult to move into soil profile
 - Some cause skin irritation to humans
 - Wide applicability and useful residual

Nicotinoids

- Examples
 - Acetamiprid (Temprid SC Insecticide)
 - Clothianidin (Tandem Insecticide)
 - Dinotefuran (Safari & Merit)
 - Imidacloprid (Merit)
 - Nitenpyram (Guardian mostly for pets)
 - Thiacloprid (Rose Shield concentrate)
 - Thiamethoxam (Helix Xtra)
- Nerve toxins at nicotinic receptor (mimics nicotine)
- Systemic, Good residual in plants, soil.
- Moderate impact on beneficials



Red Category Pesticides

Definition: A pesticide will be designated as a Red Category Pesticide if it meets the following criteria:

- i. it contains a WARNING or DANGER signal word on the product label; and
- ii. it contains an active ingredient that has been designated as a restricted use pesticide, a state-limited-use pesticide or a regulated herbicide; and it does not meet the criteria to be designated as a Green Category pesticide under subparagraph (A)(i) of this paragraph, or a Yellow Category pesticide under subparagraph (B)(i) of this paragraph.

Approval for Use: Prior to the application, licensees must provide written justification to the IPM Coordinator for the use of the Red Category pesticide and must obtain signed approval for the application from the IPM Coordinator. Red Category pesticide approvals shall have a duration of no longer than three (3) months or three (3) applications per site, whichever occurs first.



Red Category Restrictions

- I. Red Category pesticides may be applied indoors if students are not present and are not expected to be present in the room or treated area within eight (8) hours following the application, or until the reentry interval specified on the pesticide label has expired, whichever interval is longer.
- II. Red Category pesticides may be applied outdoors if students are not present within twenty-five (25) feet of the application site, the area is secured in accordance with this section, and reentry by students is prohibited for no less than eight (8) hours, or until the reentry interval specified on the pesticide label has expired, whichever interval is longer.
- III. The treated area must be clearly posted at all entry points with a sign, or secured using a locking device, a fence or other practical barrier such as commercially available barrier caution tape or periodically monitored to keep students out of the treated area until the allowed reentry time.



Red Category

INSECTICIDE-MITICIDE-FUNGICIDE

	% By Wt.
INERTS:	49.0%
of fatty acids	
ADJUVANTS	51.0%
	TOTAL 100.0%

of M-Pide weighs 8.50 lb at 68°F and contains 3.8 lb active ingredient per gallon (456 g ai/L)

KEEP OUT OF REACH OF CHILDREN
WARNING – AVISO

usted no entienda la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

- Call a poison control center or doctor for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

Other

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

- 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 center or doctor for treatment advice.

HOT LINE NUMBER

if container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-888-478-0798 for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

stantial but temporary eye injury and skin irritation. Do not get in eyes, on skin or clothing. Wear goggles or face shield. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

- Definition: A pesticide will be designated as a Red Category Pesticide if:
 - it contains a WARNING or DANGER signal word on the product label; OR
 - it has been designated as a restricted use pesticide, a state-limited-use pesticide or a regulated herbicide...
- Highest risk
- Licensed applicator only

Red Product Examples



Justification Forms

- Needed for Yellow & Red
- Must explain reason & site

APPROVAL FOR YELLOW AND RED CATEGORY PRODUCTS

Description of pest problem: _____

Justification for use: _____

Application Site or
Area: _____

Name of Pesticide: _____

EPA Registration #: _____

Green Category pesticides may be used at the discretion of the licensee.

Use of **Yellow Category** pesticides requires written approval from the Certified Applicator prior to their use. **Yellow Category** approvals shall have duration of no longer than six (6) months or six (6) applications per site, whichever occurs first.

Use of **Red Category** pesticides requires written justification by the licensee to the IPM Coordinator and signed approval from the IPM Coordinator prior to application. **Red Category** approvals shall have a duration of no longer than three (3) months or three (3) applications per site, whichever is first.

Approval of Certified Applicator: _____ Date: _____
(**Yellow** and **Red Category** Products)

Approval of IPM Coordinator: _____ Date: _____
(**Red Category** Products)

Forwarded to: IPM Coordinator **Yellow** and **Red Category** Products

Approvals shall be kept by the IPM Coordinator of the district for a minimum of two (2) years.

RULE
§7.151
General
Standards
for Storage
and
Disposal of
Pesticides

- a) Storage and disposal of a pesticide and/or its container shall be made consistent with the pesticide's labeling.
- b) No person may dispose of, discard, or store any pesticide or pesticide container in a manner that may cause or result in injury to humans, vegetation, crops, livestock, wildlife, pollinating insects, or pollution of any water supply or waterway.
- c) The applicator, the owner of the pesticide and/or the person in control of the mixing shall be jointly and severally liable for proper storage and disposal of pesticide containers and contents.

RULE §7.151

(d) The name on either the pesticide label or the specimen label shall be written on the pesticide container if the name of the pesticide is not on the pesticide container and the pesticide's identity is known. Nothing in this subsection shall be construed as authorizing the misbranding of a pesticide as defined in §76.023 of the Texas Agriculture Code.

(e) A person storing a pesticide shall maintain the complete label of that pesticide, in hard copy, for as long as the pesticide is being stored. If the complete label is not available and the pesticide's identity is known, the person storing the pesticide shall obtain a hard copy of the EPA pesticide label.

(f) For every pesticide that is being stored, a hard copy of the complete label, shall be made immediately available for inspection to the Department's inspector at the site where the pesticide is being stored.





Transport & Storage

- Locked building
- Separated chemicals
- Spill kits
- Transport in secured bins
 - What about equipment?
 - Who has access?

QUESTIONS