



WORKING SAFELY WITH PESTICIDES

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UA Pesticide Safety
Education Program

REGISTRATION PROCESS

It takes many years
and millions/billions
of dollars to get a
pesticide approved
and registered for use.



Why does it take so long and cost so much?

Efficacy and performance tests to study the pesticide and its impacts on

- The target pest
- The crop, other plants or treatment site
- Bees and other beneficial or non-target insects
- Wildlife, livestock and pets

Information also gathered on

- Crop varieties
- Methods and rates
- Number of applications

Field Trials and Research



ADDITIONAL ENVIRONMENTAL IMPACTS

Birds

Fish and other aquatic life
Surface and groundwater

How long do residues remain in
the air, soil, water and plants
(half-life)?



ALSO NEED TO KNOW...

What happens to the pesticide after it is applied?

Is it volatile and/or have the tendency to drift?

Does it move through soil to the groundwater?

Does it move into plants from the soil?

Degradation

Mobility

Residue



DATA REVIEW

The EPA

- Reviews the data
- Must approve labeling language
- Might require changes to label and labeling before registration





SECTIONS OF THE PESTICIDE LABEL

You will receive a packet with two labels

- 1 Organic product
- 1 Conventional (inorganic) product

Let's compare the information you will find on the labels of each type of pesticide.

SECTIONS OF THE LABEL

1. Brand Name
2. Company Name/Manufacturer
3. Active Ingredient(s)
4. Inert Ingredients
5. EPA Registration Number
6. Signal Words (activity)
7. First Aid Instructions
8. Precautionary Statements
9. Personal Protective Equipment
10. Environmental Hazards

Brand Name → ACARAMORT EC ← **Formulation**

AGRICULTURAL MITICIDE ← **Pesticide Type**

RECOMMENDED FOR AGRICULTURAL USE ONLY

Manufacturer → AGRICOQUEM INTERNATIONAL

Active Ingredients →

Inert Ingredients →

COMPOSITION	
Active Ingredients: (% by weight)	
Propargite [2-(p-tert-butylphenoxy) cyclohexyl 2-propynyl sulfite]*	73.0%
Inert Ingredients	27.0%
Total	100.0%

* Contains 6.55 lb. technical PROPARGITE per gallon

AGRICOQUEM INTERNATIONAL, INC. PETROVILLE, PA 19099
 EPA REG. No. 999-909
 EPA EST. No. 9999-PA-1 ← **EPA Registration Number**

ACARAMORT is a registered product of Agricoquem International, Inc.
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Signal Word → KEEP OUT OF REACH OF CHILDREN
DANGER • PELIGRO

TO THE USER: Si usted no entiende 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 →

FIRST AID

If in eyes: Immediately flush eyes with plenty of water. See a physician.
 If inhaled: Remove person to fresh air. Apply artificial respiration if symptoms indicate. Call a physician.
 If on skin: Wash thoroughly with soap and water. Get medical attention.
 If swallowed: Do not induce vomiting. Drink promptly a large quantity of milk, egg whites or gelatin solution. If these are not available, drink large quantities of water. Avoid alcohol. Call a physician or Poison Control Center immediately.

Precautionary Statements →

PRECAUTIONARY STATEMENTS

HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS

Corrosive, causes eye damage. May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Do not breathe vapors or spray mist. Do not get in eyes, on skin or on clothing. Wash hands and face thoroughly with soap and water after use and before eating, drinking or smoking.

PPE →

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and Other Handlers Must Wear: A long-sleeved shirt and long pants; chemical-resistant gloves such as Nitrile, Butyl, barrier laminate, neoprene rubber, polyvinyl chloride, or viton; shoes plus socks; protective eye wear; chemical-resistant headgear for overhead exposure; chemical-resistant apron when cleaning equipment, mixing or loading dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C). Applicators, if applying more than 2 pints of ACARAMORT per acre in air blast equipment to citrus, must be in an enclosed cab. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

Environmental Hazards →

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Drift or runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

PHYSICAL OR CHEMICAL HAZARDS

Flammable. Keep away from heat and open flame.

This mock pesticide product label was developed for training purposes by Melanie Zavala, UC Statewide IPM Project

PESTICIDE TOXICITY - LD₅₀ ACTIVITY

I would like 5 volunteers, please.



You'll get candy.....

- Measures the acute toxicity – immediate effects
- Only focuses on lethal dose
- Doesn't provide details on chronic effects
- Used to determine the signal word placed on the label

SIGNAL WORD

&

PESTICIDE TOXICITY

DANGER

WARNING

CAUTION

Remember: The signal word ONLY tells you the level of ACUTE toxicity

PARTS OF THE LABEL

1. Brand Name
2. Company Name/Manufacturer
3. Active Ingredient(s)
4. Inert Ingredients
5. EPA Registration Number
6. Signal Words
7. First Aid Instructions (scenarios)
8. Precautionary Statements
9. Personal Protective Equipment
10. Environmental Hazards

Brand Name → **ACARAMORT EC** ← **Formulation**

← **Pesticide Type** → **AGRICULTURAL MITICIDE**

← **Manufacturer** → **AGRICOQUEM INTERNATIONAL**

Active Ingredients → **COMPOSITION**

Active Ingredients: (% by weight)	
Propargite [2-(p-tert-butylphenoxy) cyclohexyl 2-propynyl sulfite]*	73.0%
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Signal Word → **KEEP OUT OF REACH OF CHILDREN**
DANGER • PELIGRO

First Aid → **FIRST AID**

Precautionary Statements → **PRECAUTIONARY STATEMENTS**

PPE → **PERSONAL PROTECTIVE EQUIPMENT**

Environmental Hazards → **ENVIRONMENTAL HAZARDS**

USER SAFETY RECOMMENDATIONS

PHYSICAL OR CHEMICAL HAZARDS

This mock pesticide product label was developed for training purposes by Melanie Zavala, UC Statewide IPM Project

PARTS OF THE LABEL

11. Restricted Entry Interval

12. Directions for Use

13. Type of pesticide

14. Storage and Disposal

15. PPE for Early Entry Workers

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

USE RESTRICTIONS

Do not apply this product through any type of irrigation system.

Do not mix ACARAMORT with alkaline materials (such as lime, Bordeaux mixture or lime sulfur) or with materials containing a large amount of petroleum type solvents.

Do not use in spray solution above pH 10.

Do not plant any food or feed crop in rotation within 6 month after last application of propargite unless the crop is a registered use for propargite.

Cotton—Apply only before bolls open. Do not feed treated foliage or cotton trash to livestock.

REI

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 7 days.

Exception: After the first 48 hours or the REI, workers may enter the treated area to perform hand labor or other tasks involving contact with anything that has been treated, such as plants, soil, or water, without time limit, if they wear the early-entry personal protective equipment listed below.

PPE for Early Entry Tasks

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, appears below.

- coveralls
- chemical-resistant headgear
- chemical-resistant gloves, such as nitrile, butyl, barrier laminate, neoprene rubber, polyvinyl chloride or viton
- shoes plus socks
- protective eye wear

Notify workers of the application by warning them orally and by posting warning signs at the entrances to treated areas.

Directions for Use

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Formulation

ACARAMORT is a liquid emulsifiable concentrate for preparing sprays to control banks grass, Pacific spider, strawberry spider and two-spotted spider mites.

Directions for Use

ACARAMORT is not systemic in action, therefore complete coverage of both upper and lower leaf surfaces and of fruit is necessary for effective control.

After three-quarters full of water, add recommended dosage (from table) of ACARAMORT to the spray tank. Fill tank, agitate and spray thoroughly to cover foliage and fruit for best results.

DOSAGE INSTRUCTIONS

Crop	Mites Controlled	Timing of Application	Amount of Acaramort per Acre	Gallons of Spray Solution per Acre		Total Number of Sprays per Year	Earliest Harvest Days After Applications
				Ground Application	Aerial Application		
COTTON	Strawberry spider Pacific spider	Early	1 pint	15 to 30	Not recommended	3	Before bolls open
		Mid-season to Layby	1.5 to 2 pints	25 to 40	—		
	2 pints		—	5 to 15			
	Layby		2 pints	25 to 50	5 to 15		
	Layby to boll opening	2 pints	—	5 to 15			

STORAGE AND DISPOSAL

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

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Storage and Disposal Instructions

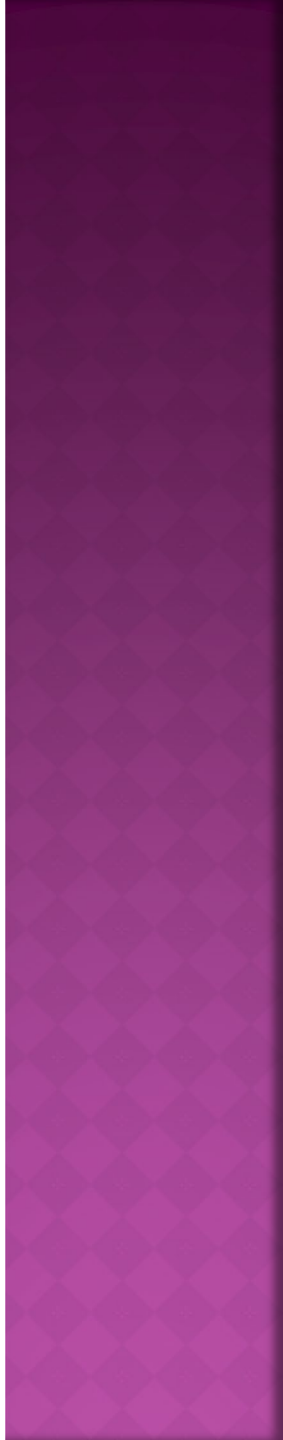
AG USE REQUIREMENTS BOX:

Agricultural Use Requirements	
WPS Reference →	Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.
REI Reference →	Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.
Early Entry Worker PPE →	PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: <ul style="list-style-type: none">• Coveralls• Waterproof gloves• Socks and chemical-resistant footwear

WPS Reference →

REI Reference →

Early Entry Worker PPE →



PARTS OF THE LABEL

11. Restricted Entry Interval

12. Directions for Use

13. Type of pesticide

14. Storage and Disposal

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AGRICULTURAL USE REQUIREMENTS

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USE RESTRICTIONS

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Do not plant any food or feed crop in rotation within 6 month after last application of propargite unless the crop is a registered use for propargite.

Cotton—Apply only before bolls open. Do not feed treated foliage or cotton trash to livestock.

REI

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 7 days.

Exception: After the first 48 hours or the REI, workers may enter the treated area to perform hand labor or other tasks involving contact with anything that has been treated, such as plants, soil, or water, without time limit, if they wear the early-entry personal protective equipment listed below.

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Storage and Disposal Instructions

In summary, when you work with any pesticide, read and follow the label before:

- Buying the pesticide
- Mixing or preparing the pesticide you will apply
- Applying the pesticide
- Storing or disposing of the pesticide or its container

Buying



Measuring or mixing



Applying



Storing or disposing

