

499-521

02/16/2007

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## U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
 Registration Division (7505C)  
 1200 Pennsylvania Ave., N.W.  
 Washington, D.C. 20460

EPA Reg. Number:

499-521

Date of Issuance:

FEB 16 2007

## NOTICE OF PESTICIDE:

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

TC 270

## Name and Address of Registrant (include ZIP Code):

Whitmire Micro-Gen Research Laboratories, Inc.  
 3568 Tree Court Industrial Boulevard  
 St. Louis, MO 63122-6682

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

(continued on page 2)

Signature of Approving Official:

Richard J. Gebken, Product Manager (10)  
 Insecticide Branch, Registration Division (7505P)

Date:

FEB 16 2007

EPA Form 8570-6

2. Make the following change to the label:

- a. Change the product registration number to "EPA Reg. No. 499-521"
- b. Make the following label revisions:

First Aid section comment(s), page 2 of 9:

- 1. Revise the last statement of this section that starts with "You may also call..." with the following: "**For additional information, you may call 1-800-xxx-xxxx or the National Pesticide Information Center at 1-800-xxx-xxxx for emergency medical treatment information.**"

Precautionary Statements, Hazards to Humans and Domestic Animals section comment(s), page 2 of 9:

- 2. At the beginning of the 5<sup>th</sup> sentence, insert the word "hands" immediately preceding the word "thoroughly."

Precautionary Statements, Physical or Chemical Hazards section comment(s), pages 2 and 5 of 9:

- 3. Insert the following text immediately preceding the 1<sup>st</sup> sentence: "**Combustible.**"  
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Precautionary Statements, Use Restrictions section comment(s), page 5 of 9:

- 4. Revise this section by replacing with the following:

**Use Restrictions**

- Apply this product only as specified on this label.
- Do not remain in treated area.
- Do not allow adults, children, or pets to enter until treated area has been thoroughly ventilated.
- Do not apply directly to food.
- Remove and cover all food and water before use.
- Remove or cover dishes, utensils, food processing equipment, and food preparation surfaces before use, or wash them thoroughly after ventilation of treated area.
- All food processing surfaces and equipment should be covered or washed with an effective cleaning compound followed by a potable water rinse after use of this product.
- Remove pets, birds and cover fish aquariums and turn off air pumps motor before application.
- In health care facilities, remove patients prior to treatment and thoroughly ventilate treated area for two hours before returning patients.

Directions for Use section, Space Spray subsection comment(s), page 5 of 9:

- 5. Revise the text starting with "With a mechanical aerosol generator..." to read as follows: "Apply as a space spray using a mechanical aerosol generator (no droplets over 50 microns in diameter and 80% of droplets less than 30 microns in diameter), ..."

<sup>1</sup> For more information, please refer to page 2 of 3 of the product chemistry review for this product.

- 6. In the "Outdoor Ground Fogging Application" subsection, revise as follows:
  - **State a minimum temperature** for application. We suggest 50<sup>o</sup> F.
  - In the paragraph located under the water dilution table, revise the 3<sup>rd</sup> sentence starting with "For best results, apply..." to read as follows: "For best results, apply when meteorological conditions create a temperature inversion and wind speed is greater than 1 mph."
  - In the 4<sup>th</sup> and 5<sup>th</sup> sentences, **state a yearly limit on the number of applications and amount of active ingredient applied per year.** The label states one application per day as proposed or 365 applications per year with a limit of 0.0025 pounds per acre per day. (Please be aware that this is equivalent to a maximum of 0.9125 pounds pyrethrins per acre per year for the purpose of risk assessment.)
  - **Either delete or move the paragraph** starting with "When used in cold aerosol generators ..." to the heading on page 7 "**Handheld and Backpack Equipment.**" State a swath width in the Handheld and Backpack Equipment directions.
  
- 7. In the "Ground-Based and Aerial Application" subsection, revise as follows:
  - **GROUND ULV.** PR Notice 2005-1 clearly states that sections on Ground ULV and Aerial Application droplet size determinations should be on the label. The language on your label only includes the Ground ULV language with droplet sizes that are unlikely to be efficacious with Ground ULV applications. The droplet sizes for Ground ULV are not supported by your efficacy data. The 50 micron volume median diameter (VMD) value proposed is unlikely to kill mosquitoes. We suggest a VMD in the 30 micron size range. The 100 micron Dv 0.9 value results in too many large drops and low levels of efficacy. We suggest a Dv 0.9 droplet value in the 40-50 micron range. Revise this subsection as follows:

**"Ground-based applications.** Spray equipment must be adjusted so that VMD is less than [X = value provided by Whitmire] microns (Dv 0.5 < X µm) and that 90% of the spray is contained in droplets smaller than [Y = value to be provided by Whitmire] microns (Dv 0.9 < Y µm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated."

- **Truck-mounted application.** As mentioned in our letter dated January 10, 2006, in bullet 7i., EPA asked you to add "... a table to the mosquito control directions providing examples of how much product to add to a specified amount of diluent to achieve the desired dilution, together with directives indicating the volume of dilution to apply per acre (flow rate) at specific truck speeds." This label does not include the requested table, but describes the dilution of product without mention of flow rate at the truck speed of 10 mph, except to say that the applicator may spray at a volume up to 15 ounces per minute to deliver a maximum application rate of 0.0025 pounds

per acre. The directions also mention that the flow rate may vary as long as the 0.0025 pounds per acre of pyrethrins application rate is not exceeded using a 300 foot swath calculation.

Revise this section of the label to include the table. The flow rate of the sprayer pump should be stated for the corresponding vehicle speed. We suggest 5 mph increments (i.e., 5 mph, 10 mph, 15 mph and 20 mph). The flow rate must increase as speed increases to deliver the prescribed application rate of 0.0025 pounds of pyrethrins per acre. The table should include the pyrethrins dilutions stated on page 7.

- **Aerial Application.** The droplet size language from PR Notice 2005-1 is not included in this label. Based on your proposed label, a VMD ( $D_v 0.5 = < 50$  microns) and a  $D_v 0.9 < 100$  microns appears appropriate. Add the following:

**“Aerial Application.** Spray equipment must be adjusted so that the VMD produced is less than [A = value to be provided by Whitmire] microns ( $D_v 0.5 < A \mu m$ ) and that 90% of the spray is contained in droplets smaller than [B = value to be provided by Whitmire] microns ( $D_v 0.9 < B \mu m$ ). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.”

8. Data deficiencies were identified for storage stability and corrosion characteristics in the product chemistry review for this product. Therefore, Whitmire is obligated to submit a One Year Storage Stability (830.6317) study and a Corrosion Characteristics (830.6320) study on this product in support of this registration within one (1) year from the date of this registration.<sup>2</sup>

3. Submit two (2) copies of the revised final printed label for the record before the product is released for shipment.

Whitmire should note that a notice of availability of EPA’s reregistration eligibility decision (RED) documents for products containing pyrethrins was published in the *Federal Register* on July 26, 2006 (Volume 71, Number 143, Pages 42387-42389). Further, EPA’s RED for products containing piperonyl butoxide was published in the *Federal Register* on July 26, 2006 (Volume 71, Number 143, Pages 42385-42386). As a result, additional data and/or labeling changes may be required for products containing pyrethrins and piperonyl butoxide.

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<sup>2</sup> For more information, please refer to page 2 of 3 of the product chemistry review for this product.

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If the above conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.



Richard J. Gebken  
Product Manager (10)  
Insecticide Branch  
Registration Division (7505P)

Enclosure: Label stamped "Accepted with Comments"  
000499-00521 D 369726

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# TC 270

### KILLS:

Angoumois Grain Moths, Ants, Bed Bugs, Boxelder Bugs, Cadelles, Cheese Mites, Cigarette Beetles, Cockroaches, Confused Flour Beetles, Crickets, Earwigs, Fruit Flies, Gnats, Granary Weevils, House Flies, Indianmeal Moths, Mosquitoes, Rice Weevils, Spiders, Tobacco Moths and Wasps

### FOR USE IN AND AROUND:

Apartments and Homes; Cafeterias, Dormitories; Food Service, Storage and Preparation Areas, Grocery and Convenience Stores; Health Care Facilities; Hotels; Motels, Office Buildings; Restaurants; Schools; Universities and On Animal

See complete label for additional insects and use sites.

### ACTIVE INGREDIENT:

Pyrethrins*, a botanical insecticide .....	3.00%
Piperonyl butoxide, technical** .....	30.00%

OTHER INGREDIENTS: .....	67.00%
Contains Petroleum Distillate .....	TOTAL: 100.00%

\* 1 Gallon contains 0.198 lbs of pyrethrins

\*\* Equivalent to 24% (butylcarbityl)(6-propylpiperonyl) ether and 6% related compounds

## KEEP OUT OF REACH OF CHILDREN

## CAUTION

See back panel for First Aid, Precautionary Statements, Directions for Use and Storage & Disposal

EPA Reg. No 499-xxx • EPA Est No 499-MO-1

NET CONTENTS: \_\_\_\_\_



WHITMIRE MICRO-GEN  
RESEARCH LABORATORIES, INC.  
800-777-8570 www.wmmg.com

**ACCEPTED  
with COMMENTS  
in EPA Letter Dated  
February 16, 2007**  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
499-521

**FIRST AID**

**IF SWALLOWED:** Immediately call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eyes open and rinse slowly and gently with water for 15 - 20 min. Remove contact lenses, if present, after the first 5 min, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call 1-800-225-3320 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** Contains petroleum distillate - vomiting may cause aspiration pneumonia.

**PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish. Do not contaminate bodies of water when disposing of equipment rinsate or wash waters.

**TERRESTRIAL USES:** Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift from treated areas may be hazardous to organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment wash waters.

See complete label for additional statements regarding Wide Area Mosquito Control Applications.

**PHYSICAL OR CHEMICAL HAZARDS**

Do not use or store near heat or open flame. **Note:** Some furniture finishes and particularly plastics can be damaged by petroleum based insecticides. To avoid damage, cover those items and do not spray directly. If in doubt, test by applying this material to an inconspicuous area before spraying.

**DIRECTIONS FOR USE**

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

See full label accompanying product for complete Directions for Use. (See separate directions and precautions for Wide Area Mosquito Control Applications.)

**USE RESTRICTIONS**

- Apply this product only as specified on this label.
- Do not remain in treated area when applying as a space treatment. Ventilate area thoroughly before reentering.
- Do not allow children or pets to enter the treated area until it has been thoroughly ventilated.
- Do not apply directly to food.
- Remove or cover all food and water in the treatment area before use.
- Do not apply while food processing is underway when applying as a space treatment.
- Remove or cover dishes, utensils, food processing equipment and food preparation surfaces in the treatment area before use or wash them thoroughly after ventilation of treated area.
- Remove pets, birds, cover fish aquariums and turn off air pump motor before application.
- In health care facilities, remove patients prior to treatment and thoroughly ventilate treated area for 2 hr before returning patients.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container in secured dry storage area. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site in accordance with the label directions, or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** ( $\leq 2.5$  gal.) Empty container by using the product in accordance with the label directions. Do not reuse container! Place empty container in trash or offer for recycling if available. If container is partly filled, call your local solid waste agency or call 1-800-CLEANUP for disposal instructions. NEVER PLACE UNUSED PRODUCT DOWN ANY INDOOR OR OUTDOOR DRAIN!

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**CONTAINER DISPOSAL** (> 2.5 g/l.) Empty container by using the product in accordance with the label directions. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**A Prescription Treatment® brand insecticide from:**  
Whitmire Micro-Gen Research Laboratories, Inc.  
3568 Tree Court Industrial Blvd.  
St. Louis MO 63122-6682  
[www.wmmg.com](http://www.wmmg.com)  
© 2006 Whitmire Micro-Gen Research Laboratories, Inc.

### TC 270

For indoor or outdoor application as a space, area or contact spray. Dependent upon insects to be killed and the area to be treated, this product may be applied through mechanical aerosol or Ultra Low Volume (ULV) cold aerosol generators such as Whitmire Micro-Gen equipment, as well as thermal and conventional fogging or spraying equipment.

**KILLS:**

Angoumois Grain Moths, Ants, Bed Bugs, Boxelder Bugs, Cadelles, Cheese Mites, Cigarette Beetles, Cockroaches, Confused Flour Beetles, Crickets, Earwigs, Fruit Flies, Gnats, Granary Weevils, House Flies, Indianmeal Moths, Mosquitoes, Rice Weevils, Spiders, Tobacco Moths and Wasps

**FOR USE IN AND AROUND:**

Apartments and Homes; Cafeterias; Dormitories; Food Service, Storage and Preparation Areas; Grocery and Convenience Stores; Health Care Facilities; Hotels; Motels; Office Buildings; Restaurants; Schools; Universities and On Animal

(See page \_ for additional insects and use sites.)

**ACTIVE INGREDIENTS:**

Pyrethrins*, a botanical insecticide .....	3.00%
Piperonyl butoxide, technical** .....	30.00%

<b>OTHER INGREDIENTS:</b> .....	<u>67.00%</u>
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Contains Petroleum Distillate .....	TOTAL: 100.00%
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\* 1 gallon contains 0.198 lbs of pyrethrins

\*\* Consists of 2.4% (butylcarbityl) (6-propylpiperonyl) ether and 6 % related compounds

## KEEP OUT OF REACH OF CHILDREN

### CAUTION

(See inside for First Aid and Precautionary Statements)

EPA Reg. No. 499-xxx • EPA Est. No. 499-MO-1

#### FIRST AID

**IF SWALLOWED:** Immediately call a poison control center or doctor for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

**IF IN EYES:** Hold eyes open and rinse slowly and gently with water for 15 - 20 min. Remove contact lenses, if present, after the first 5 min, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also call 1-800-225-3320 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** Contains petroleum distillate - vomiting may cause aspiration pneumonia.

#### PRECAUTIONARY STATEMENTS

##### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco

#### ENVIRONMENTAL HAZARDS

This product is highly toxic to fish. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

**TERRESTRIAL USES:** Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift from treated areas may be hazardous to organisms in adjacent aquatic sites. Do not contaminate water when disposing of equipment washwaters.

##### WIDE-AREA MOSQUITO CONTROL APPLICATIONS BY GROUND OR AERIAL EQUIPMENT

Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds,

swamps, marshes or estuaries) except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body.

Do not apply to blooming crops or weeds when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by the state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame. **Note:** Some furniture finishes and particularly plastics can be damaged by petroleum based insecticides. To avoid damage, cover those items and do not spray directly. If in doubt, test by applying this material to an inconspicuous area before spraying.

### DIRECTIONS FOR USE

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

See separate directions for Wide Area Mosquito Control Applications.

### USE RESTRICTIONS

- Apply this product only as specified on this label.
- Do not remain in treated area when applying as a space treatment. Ventilate area thoroughly before reentering.
- Do not allow children or pets to enter the treated area until it has been thoroughly ventilated.
- Do not apply directly to food.
- Remove or cover all food and water in the treatment area before use.
- Do not apply while food processing is underway when applying as a space treatment.
- Remove or cover dishes, utensils, food processing equipment and food preparation surfaces in the treatment area before use or wash them thoroughly after ventilation of treated area.
- Remove pets, birds, cover fish aquariums and turn off air pump motor before application.
- In health care facilities, remove patients prior to treatment and thoroughly ventilate treated area for 2 hr before returning patients.

### INDOOR USE, UNDILUTED

**AS A SPACE SPRAY - To kill accessible stages of insects\* infesting dried fruit products in storage or being processed:** Close room or warehouse and shut off all ventilating systems. Apply as space spray using a Whitmire Micro-Gen ULV unit, or similar equipment to dispense this product as a fine mist in the air above the trays and shelves. Do not apply to fruit directly. Use a dosage not to exceed 64 fl oz/50,000 ft<sup>3</sup> of room space. Do not remain in treated areas after application, and leave room closed for at least 1hr. Ventilate thoroughly before occupants are allowed to reenter. Repeat application every 30 days.

\* Among these are the Confused Flour Beetle, Dried Fruit Beetle, Indianmeal Moth, Roaches and Sawtoothed Grain Beetle

**AS A SPACE SPRAY - To kill the adult and accessible forms of insect pests\*\* of stored food (stored in multi-wall paper bags or in cloth bags) in warehouses and storage rooms:** Close room or warehouse and shut off all ventilating systems. Apply as space spray using a Whitmire Micro-Gen ULV unit, or similar equipment to dispense this product. Use a dosage of 1 fl oz/1,000 ft<sup>3</sup> of room space. Do not remain in treated areas after application and leave room closed for at least 1 hr. Ventilate thoroughly before occupants are allowed to reenter. Reapply 1/day if retreatment is necessary.

\*\* Among these are the Angoumois Grain Moth, Cadellies, Confused Flour Beetle, Indianmeal Moth, Mediterranean Flour Moth, Rice Weevil, Sawtoothed Grain Beetle and Yellow Meal Worm

**CONTACT SPRAY:** Use full strength or dilute and apply through equipment which can deliver a pin-stream spray. Apply the spray into all cracks and crevices in woodwork, walls, floors, underneath sinks, behind pipes and in all places where these insects harbor. Contact as many insects as possible with the spray. Do not allow spray to contact stored food.

**SPACE SPRAY:** With a mechanical aerosol generator (no droplets over 70 microns in diameter and 80% less than 30 microns), apply this product undiluted at a dosage rate of approximately 1 fl oz/1,000 ft<sup>3</sup> of room space or, when applying diluted product, apply at the desired rate/1,000 ft<sup>3</sup>. Do not remain in treated areas after application and leave the room closed for 1 hr. Ventilate the area thoroughly before occupants are allowed to reenter. Reapply 1/day if retreatment is necessary.

**LINEAR APPLICATION ALONG BASEBOARDS, TRIM MOLDING AND VOIDS:** With equipment designed for deep void Ultra Low Volume (ULV) applications, follow the manufacturer's recommendations for proper equipment setup and operation pressures. Place the tip of the applicator at or into the crack or crevice to be treated. Apply product in short bursts while keeping tip in position. Move the tip at a steady rate of approximately 1 ft/sec. Allow the air stream to push insecticide deep into voids. Repeat application as necessary to flush insects from voids. Avoid applying to the point of runoff or drip. Ventilate thoroughly before occupants are allowed to reenter. Reapply 1/day if retreatment is necessary.

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**INDOOR USE, DILUTED IN WATER**  
**DILUTION RATES:**

Pyrethrin % Desired	Mixture Rate	Application Rate per 1,000 ft <sup>2</sup>
1.00	1 Part Concentrate to 1.75 Parts Water	1 fl oz
0.50	1 Part Concentrate to 4.25 Parts Water	1 fl oz
0.30	1 Part Concentrate to 7.66 Parts Water	1 - 2 fl oz
0.15	1 Part Concentrate to 16.15 Parts Water	1 - 2 fl oz

**SPACE SPRAY** – To kill flying and crawling insects in establishments and structures, including those operating under the federal meat, poultry, shell egg grading and egg products inspection programs: Dilute concentrate as listed in the above paragraph, and mix well. Do not apply while food processing is underway. Cover or remove any exposed food. Cover food processing surfaces and equipment or wash with an effective cleaning compound followed by a potable water rinse. Close doors and windows and shut off all ventilating equipment prior to application. Using Whitmire Micro-Gen ULD or similar equipment adjusted to deliver aerosol droplets, apply at the desired rate/1,000 ft<sup>2</sup>. Leave room closed for 1 hr after application and ventilate thoroughly before occupants are allowed to reenter. Reapply 1/day if retreatment is necessary.

**CONTACT SPRAY:** Dilute concentrate to desired level.

**OUTDOOR USE**

**OUTDOOR GROUND FOGGING APPLICATION:** Use diluted to kill flies, mosquitoes and gnats from 0.15 – 1.0 and mix well. Use at a time when the temperature is cool (75°F or less) and the wind velocity is approximately 10 mph.

**HANDHELD EQUIPMENT:** When using ULD equipment such as Whitmire Micro-Gen equipment, apply at the rate of 4 oz/acre. Figure application travel path for a coverage of a 50 ft swath. Allow spray drift to penetrate dense foliage. Repeat application as required for control.

(For wide area community applications, see the Wide Area Mosquito Control section for appropriate Precautions and Directions for Use.)

**FOR USE ON ANIMALS**

Use at 0.5% to protect beef cattle, dairy cattle and horses from horn flies, house flies, mosquitoes and gnats, apply a light mist sufficient to wet the tips of the hair. To kill stable flies, horse flies and deer flies on beef cattle, dairy cattle and horses, apply 2 fl oz/adult animal, sufficient to wet the hair but not to soak the hide. To kill the motile stages of blood sucking lice on beef and dairy cattle, apply the spray to thoroughly wet the hair. Use 2 fl oz or less/animal and repeat every 2 – 3 weeks as required.

**Space treatment over animals in barns and corrals:** Select proper dilution and treat with ULD equipment over animals.

Do not use on dogs or cats.

**ON ANIMAL USE RESTRICTIONS**

- Do not apply more than 1/day.
- Do not reapply within 1 day.
- Do not remain in treated area.
- Do not allow unprotected persons to enter until treated area has been ventilated.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container in secured dry storage area. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site in accordance with the label directions or at an approved waste disposal facility.

**CONTAINER DISPOSAL: (≤ 2.5 gal)** Empty container by using the product in accordance with the label directions. Do not reuse container! Place empty container in trash or offer for recycling if available. If container is partly filled, call your local solid waste agency or call 1-800-CLEANUP for disposal instructions. NEVER PLACE UNUSED PRODUCT DOWN ANY INDOOR OR OUTDOOR DRAIN!

**CONTAINER DISPOSAL: (> 2.5 gal)** Empty container by using the product in accordance with the label directions. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## WIDE AREA MOSQUITO CONTROL

For wide area community applications by ground or aerial equipment, Ultra Low Volume (ULV) sprays or fogs.

For use only by federal, state, tribal or local government officials responsible for public health or vector control or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications by persons under their direct supervision.

### DIRECTIONS FOR USE

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

#### OUTDOOR USE - MOSQUITO CONTROL

Use at the 0.1% - 0.5% rate

**OUTDOOR GROUND FOGGING APPLICATION:** Use to kill mosquitoes in open areas near buildings and in campgrounds. Use preferably at a time when temperature is cool (75°F or less) and the wind velocity is approximately 10 mph or less.

**DILUTION IN WATER:** Combine water and TC 270 as directed below and mix well just prior to application.

Pyrethrin % Desired	Mixture Rate	Fluid Ounce of Diluted Product Delivers 0.0025 lb Pyrethrin/Acre
0.50%	1 Part Conc. to 4.25 Parts Water	9.7 fl oz
0.30%	1 Part Conc. to 7.66 Parts Water	16.1 fl oz
0.25%	1 Part Conc. to 9.35 Parts Water	19.4 fl oz
0.15%	1 Part Conc. to 16.15 Parts Water	32.2 fl oz
0.10%	1 Part Conc. to 24.65 Parts Water	48.5 fl oz

TC 270 may be used for mosquito control programs involving residential, industrial, recreational and agricultural areas as well as swamps, marshes, overgrown waste areas, roadsides and pastures where adult mosquitoes occur. TC 270 may be used over agricultural crops. For best results, apply when meteorological conditions create a temperature inversion and wind speed does not exceed 10 mph. The application should be made so the wind will carry the insecticidal fog into the area being treated. Do not re-treat a site more than once in 24 hr; no more than 14 applications should be made to a site in any 2 weeks. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

When used in cold aerosol generators, mechanical or electronic foggers, or misting equipment that produce a fog with the majority of droplets in the 5 - 50 micron range, TC 270 should be diluted with water.

#### GROUND-BASED AND AERIAL APPLICATION

To control adult mosquitoes and biting flies, apply up to 0.0025 lbs of pyrethrins/acre (use a 300 ft swath width for acreage calculations).

Spray equipment must be adjusted so that the volume median diameter is less than 50 microns ( $Dv\ 0.5 < 50\ \mu m$ ) and that 90% of the spray is contained in droplets smaller than 100 microns ( $Dv\ 0.9 < 100\ \mu m$ ). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

**TRUCK-MOUNTED ULV APPLICATION:** Apply at the rate of up to 0.0025 lbs pyrethrins/acre while the machine is traveling 5 - 10 mph. Position the nozzle approximately 30° above the horizontal off the side of the truck bed. The delivery rate and truck speed may be varied as long as the application rate is 0.00250 lbs of pyrethrins/acre (use a 300 ft swath width for acreage calculations). When using Whitmire Micro-Gen or similar truck mounted ULD equipment, spray at a dosage rate of 15 fl oz/min from a location up-wind of the areas where insects are to be treated. Keep speed of vehicle to approximately 10 mph. Figure application travel path for a coverage of a 300 ft swath. Apply no more than 0.0025 lbs/acre 3 times/week.

**HANDHELD AND BACKPACK EQUIPMENT:** Use at 0.1 - 0.5%. Apply up to 0.0025 lbs pyrethrins/acre. Figure application travel path for a coverage of a 50 ft swath. Allow spray drift to penetrate dense foliage. Apply at no more than 0.0025 lbs pyrethrins/acre 3 times/week.

**AERIAL APPLICATION (FIXED WING AND HELICOPTER):** To control adult mosquitoes and biting flies, apply up to 0.0025 lbs pyrethrins/acre with equipment designed and operated to produce a ULV spray application.

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In addition to sites listed on the front panel TC 270 is acceptable for use in and around the following sites:

**INDOOR:**

Animal Arenas and Quarters  
Apartments  
Auditoriums  
Bakeries  
Beverage Plants  
Boats  
Bottling Plants  
Brandy Storage Warehouses  
Buildings  
Buses  
Cabins  
Cafeterias  
Canneries  
Cattle Barns  
Churches  
Closets  
Condominiums  
Communication Centers  
Convenience Stores  
Correctional Facilities  
Dairy and Livestock Barns  
Dormitories  
Dried Fruit Processing Plants  
Drains and Sewers  
Dried Fruit Warehouses  
Drugstores  
Dumpsters  
Dwellings  
Egg Processing Plants  
Factories  
Flour Mills  
Food Handling Establishments  
Food Preparation Areas  
Food Processing Plants  
Food Service Areas  
Food Storage Areas  
Freight Containers  
Fruit Packing Sheds  
Garbage Cans  
Garbage Compactors  
Goat Houses  
Grain Elevators  
Grain Mills  
Grain Handling Equipment  
Granaries

Grocery Stores  
Health Care Facilities  
Homes  
Hotels  
Horse Stables/Barns  
Hospices  
Industrial Installations  
Institutions  
Jails  
Laboratories  
Libraries  
Livestock Barns  
Loafing Sheds  
Locker Rooms  
Mills  
Mausoleums  
Meat Packing Plants  
Milk Rooms  
Missions  
Mobile Homes  
Motels  
Museums  
Mushroom Processing Plants  
Nursing Homes  
Office Buildings / Offices  
Passenger Rail Cars  
Peanut Processing Plants  
Peanut Storage Warehouses  
Poultry Houses  
Poultry Processing Plants  
Prisons  
Public Buildings  
Rabbit Processing Plants  
Rabbit Houses  
Railroad Cars  
Recreational Vehicles  
Research Animal Areas  
Restaurants  
Restrooms  
Rice Mills  
Schools  
Shade Houses  
Ships  
Ship holds  
Stables  
Stable Bins

Stored Food in Multi-walled  
Paper or Cloth Bags  
Stored Seed Warehouses  
Stores  
Supermarkets  
Swine Houses  
Textile Mills and Warehouses  
Theaters  
Tobacco Plants  
Tobacco Warehouses  
Townhouses  
Trains  
Transportation Equipment  
Trucks  
Truck Trailers  
Universities  
Utilities  
Utility Rooms  
Voids (Attics, Walls, Ceilings)  
Warehouses  
Wineries  
Wine Storage Warehouses  
Zoos

**OUTDOOR:**

Campgrounds  
Corrals  
Drive-in Restaurants  
Drive-in Theaters  
Dumpsters  
Feedlots  
Garbage Dumps  
Golf Courses  
Junkyards  
Kennels  
Landscapes  
Lath Houses  
Manure Piles  
Parks  
Plantscapes  
Playgrounds  
Recreational Areas  
Sewers  
Swineyards  
Zoos

TC 270 is also effective against the following insects when used according to label directions:

**FLYING INSECTS:**

Aphids  
Barn Flies  
Bees  
Black Flies  
Blow Flies  
Bottle Flies  
Boxelder Bugs

Cheese Skippers  
Deer Flies  
Face Flies  
Flies  
Fruit Flies  
Fungus Gnats  
Gnats  
Horn Flies

Hornets  
Horse Flies  
House Flies  
Mosquitoes  
Mushroom Flies  
Skipper Flies  
Stable Flies  
Thrips

Vinegar Flies  
Wasp  
White Flies  
Yellow Jackets

**GRAIN BORERS:**

Larger Grain Borers  
Lesser Grain Borers

**CRAWLING INSECTS:**

Ants  
Bed Bugs  
Booklice  
Cabbage Loopers  
Cabbage Worms  
Centipedes  
Chiggers  
Chrysanthemum Leaf Miners  
Cockroaches  
Crickets  
Earwigs  
Fire Ants  
Firebrats  
Grasshoppers  
Mealybugs  
Millipedes  
Palmetto Bugs  
Pill Bugs  
Scorpions  
Sowbugs  
Vegetable Leaf Miners

**FLEAS AND TICKS:**

Brown Dog Ticks  
Fleas  
Sheep Ticks  
Spinosa Ear Ticks  
Ticks

**SPIDERS AND MITES:**

Clover Mites

Cheese Mites  
Grain Mites  
Red Spider Mites  
Spider Mites  
Spiders

**LICE:**

Mounting Stages of Yellow  
Lice & Sucking Blue Lice

**WORMS:**

Dark Mealworms  
Lesser Mealworms  
Yellow Mealworms

**BETTERLES:**

American Black Flour Beetles  
Black Carpet Beetles  
Black Fungus Beetles  
Broadhorned Flour Beetles  
Brown Spider Beetles  
Caddisflies  
Carpet Beetles  
Catorama Beetles  
Cereal Beetles  
Cigarette Beetles  
Confused Flour Beetles  
Corn Sap Beetles  
Darkling Beetles  
Depressed Flour Beetles  
Dermestid Beetles  
Dried Fruit Beetles  
Drugstore Beetles  
Flat Grain Beetles  
Foreign Grain Beetles  
Fungus Beetles  
Ground Beetles  
Hairy Fungus Beetles  
Hairy Spider Beetles  
Hide Beetles

Khapra Beetles  
Large Black Flour Beetles  
Longheaded Flour Beetles  
Merchants Grain Beetles  
Mexican Grain Beetles  
Murmidius Beetles  
Red Flour Beetles  
Red Horned Grain Beetles  
Rusty Grain Beetles  
Saw-toothed Grain Beetle  
Slenderhorned Flour Beetles  
Smalleyed Flour Beetles  
Spider Beetles  
Squarenecked Grain Beetles  
Trogoderma Beetles  
Two Banded Beetles  
White Marked Spider Beetles

**WEEVILS:**

Bean Weevils  
Broadnosed Grain Weevils  
Coffee Bean Weevils  
Granary Weevils  
Maize Weevils  
Rice Weevils

**MOTHS:**

Almond Moths  
Angoumois Grain Moths  
Chocolate Moths  
Clothes Moths  
Cocoa Bean Moths  
European Grain Moths  
Indianmeal Moths  
Mediterranean Flour Moths  
Rice Moths  
Pink Scavenger Caterpillars  
Tobacco Moths

A Prescription Treatment® brand insecticide from:

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