

499-522

01/30/2012

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460-0001

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 30, 2012

Dana M. Thomas  
Whitmire Micro-Gen Research Laboratories, Inc.  
3568 tree Court Ind. Blvd.  
St. Louis, MO 63122

Subject: Amended Reregistration Label  
Product Name: TC 262  
EPA Registration Number: 499-522  
EPA Decision Number: 411018 and 411648

Dear Ms. Thomas:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the reregistration of the above referenced product in connection with the **Pyrethrins and Piperonyl Butoxide** REDs and has concluded that your submission is acceptable.

NOTE: This product is **not** being reregistered under sections 3(c) 5 and 4(g) of FIFRA at this time.

Please note that the record for this product currently contains the Confidential Statements of Formulation (CSFs) listed below. Any previously dated CSFs are superseded.

- Basic CSF, dated 1/30/12
- Alternate CSFs #1-5, dated 1/30/12

Please note that, should you wish to add/retain a reference to the company's website on your label, the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under section 12(a)(1)(E) of FIFRA. 40 CFR §156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not be substantially differ from those claims approved through the registration process. Therefore, should the Agency find, or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to EPA's Office of Enforcement and Compliance Assurance (OECA). As an alternative, you may refer consumers to the company's phone number or e-mail address.

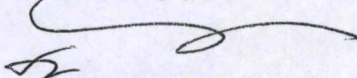
Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on non-refillable containers. The code may appear either on the label or durably marked on the container itself, and can be

added by non-notification per PRN 98-10.

A copy of your label stamped "Accepted" is enclosed along with copies of the acute toxicity and product chemistry reviews completed for the subject product. Products shipped after 12 months from the date of this amendment or the next printing of the label whichever occurs first, must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e).

If you have any questions about this letter, please contact either Jessica Rogala at (703) 347 0263 or via e-mail at [Rogala.Jessica@epa.gov](mailto:Rogala.Jessica@epa.gov).

Sincerely yours,



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

Enclosures: Label stamped "Accepted," dated 1/30/2012

3/10

# TC 262

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

**KILLS:** Ants, Bed Bugs, Cockroaches, Fleas, Flies, Mosquitoes, Scorpions, Spiders, Stored Product Pests (Beetles, Mites, Moths) and Ticks  
**FOR USE IN:** Commercial (including Food Handling Establishments, Food Service, Storage, Preparation and Processing Areas), Institutional and Residential Areas

[See inside booklet for additional insects and use sites.]

**ACTIVE INGREDIENTS:**

Pyrethrins\*, a botanical insecticide ..... 3.0%  
Piperonyl butoxide\*\* ..... 15.0%

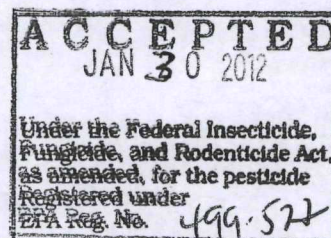
**OTHER INGREDIENTS:** ..... 82.0%  
Contains Petroleum Distillate ..... TOTAL: 100.0%

\* 1 gal contains 0.211 lb of pyrethrins and 1.053 lb of piperonyl butoxide

\*\* (butylcarbityl) (6-propylpiperonyl) ether and related compounds

## KEEP OUT OF REACH OF CHILDREN CAUTION

(See inside for First Aid and Precautionary Statements)  
EPA Reg. No. 499-522 • EPA Est. No. 7969-MO-1



### FIRST AID

**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.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 min. 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. For additional information on this product (including health concerns, medical emergencies or pesticide incidents), you may call 1-800-832-HELP.

**NOTE TO PHYSICIAN:** May pose an aspiration pneumonia hazard. Contains petroleum distillate.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Do not get in eyes, on skin or clothing. Wear protective eyewear\*. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

\*Protective eyewear includes goggles, face shield and/or safety glasses.

**Personal Protective Equipment (PPE):** Mixers, loaders, applicators and other handlers must wear the following: Long-sleeve shirt, long pants, shoes and socks, and chemical-resistant gloves made of barrier laminate, nitrile rubber, neoprene rubber or viton.

- In addition to the above PPE, applicators using a high pressure handwand in an enclosed area must wear at least a NIOSH-approved respirator with: a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any R, P, or HE filter.
- In addition to the above PPE, applicators fogging this product (applying as a space spray) in an enclosed area must wear a half-face, full-face, or hood-style NIOSH-approved respirator with: a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a cartridge or canister with any R, P or HE filter.

### USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

#### USER SAFETY RECOMMENDATIONS

User should:

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

**Engineering Controls:** Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

#### ENVIRONMENTAL HAZARDS

**TERRESTRIAL APPLICATIONS:** This product toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product has a potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

Except as specified in the directions for use, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

**WIDE-AREA MOSQUITO CONTROL APPLICATIONS:** This pesticide is toxic to aquatic organisms, including fish and invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates.

When applying as a wide area mosquito adulticide, 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.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply 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 a state, tribal or local health or vector control agency on the bases 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 applying as a wide area mosquito adulticide, 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.

**FOR CONTAINERS > 5 GALLONS:** Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other water unless in accordance with the requirements of the National Pollutant Discharge Elimination System (NPDES) permit and permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your state water board or regional office of the EPA.

#### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not apply this product around electrical equipment due to the possibility of shock hazard.

#### DIRECTIONS FOR USE

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

#### USE RESTRICTIONS

- Apply this product only as specified on this label.
- Do not apply more than 1 time/day.
- Except when applying as a wide area mosquito adulticide, do not remain in treated area. Exit area immediately and do not enter or allow others to enter treated area until sprays have dried, until vapors, mists and aerosols have dispersed, and the treated area has been thoroughly ventilated.
- Except when applying as a wide area mosquito adulticide, only protected handlers may be in the treatment area during application.
- Except when applying as a wide area mosquito adulticide, do not apply this product in a way that will contact workers or other persons, either directly or through drift.
- Remove pets, birds and cover fish aquariums before spraying.
- Do not make outdoor applications during rain.
- Not for use in outdoor residential misting systems.

5/10

- Except when applying to sewers or drains as instructed on this label, do not apply directly to sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- Do not use in aircraft cabins.
- Remove or cover exposed food and drinking water, in the treatment area, before application.
- Remove or cover dishes, utensils, food processing equipment, and food preparation surfaces in the treatment area, or wash them before use.
- Do not apply as a space spray in residences.
- For space spray applications in food handling and processing facilities:
  - Do not make space spray applications when facility is in operation.
  - Cover or remove food, in the treatment area, prior to space spray applications.
  - Cover food processing surfaces, in the treatment area, or clean after treatment and before use.
- When used in dairy barns or facilities: Close milk bulk tank lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.
- Do not apply this product in hospital rooms while occupied or in any rooms occupied by the elderly or infirm. Remove patients from room prior to treatment and thoroughly ventilate (2 hr) after application. Do not return patients to room until after ventilation.
- Do not use in patient rooms in hospitals and nursing homes for treatment of bed bugs.
- Do not apply to classrooms when in use.

**PRODUCT INFORMATION**

**Note:** Some furniture finishes, 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.

**USE IN FOOD HANDLING ESTABLISHMENTS**

Applications are permitted in food/feed areas of food/feed handling establishments as a contact spray, space spray or Crack & Crevice® treatment, including those operating under the Federal meat, poultry, shell egg grading and egg products inspection programs.

Food handling establishments are places other than private residences in which food is held, processed, prepared or served.

**FOOD AREAS:** Include areas for receiving, serving, storing (dry, cold, frozen, raw), packing (canning, bottling, wrapping, boxing), preparing (cleaning, slicing, cooking, grinding), edible waste storage and enclosed processing systems (mills, dairies, edible oils, syrups).

**NON-FOOD AREAS:** Include areas such as garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage areas (after canning or bottling).

Apply according to specific directions for pest(s) to be treated under the Indoor Use section below. Do not make space spray applications to food areas when the facility is in operation unless the treatment area is cordoned off, posted and entry prevented. Prior to space spray applications, remove or cover exposed food and drinking water in the treatment area. Remove or cover dishes, utensils, food processing equipment, and food preparation surfaces in the treatment area, or wash them before use.

**INDOOR USE**

**SPACE SPRAY –FLYING INSECTS (Flies, Gnats, Mosquitoes):** Use full strength or dilute as desired using the dilution chart below. Prior to treatment, open cabinets, doors and equipment to be treated; turn off air conditioners and fans, extinguish all flames and close windows in the area to be treated. Apply using a mechanical aerosol generator (no droplets > 50 microns in diameter and 80% < 30 microns). Apply undiluted at a rate of approx. 1 fl oz/1,000 ft<sup>3</sup> of room space, or apply diluted at the rate of 1 – 2 fl oz/1,000 ft<sup>3</sup> of room space. In commercial operations, subtract the space occupied by stored product or equipment from the cubic footage. Disperse toward areas suspected of harboring the greatest infestations of listed pests. Disperse in all locations (including around equipment, appliances and pallets, if desired) contacting as many insects as possible. Do not remain in treated areas after application. Keep area closed for at least 1 hr. Open and thoroughly ventilate treated areas before reoccupying. Do not apply as a space spray in residences.

**DILUTION:** Use a white mineral oil conforming to regulation 21 CFR 178.3620(b) or an odorless light petroleum hydrocarbon conforming to 21 CFR 172.882 or 40 CFR 180.910 (Inert ingredients used pre and post-harvest; exemptions from the requirement of a tolerance) and 180.930 (Inert ingredients applied to animals; exemptions from the requirement of a tolerance.) Combine oil and concentrate as directed below and mix well just prior to application.

Pyrethrin %Desired	Mixture Rate	Application Rate per 1,000 ft <sup>3</sup>
1.00	1 part Conc. To 2 parts Oil	1 – 2 fl oz
0.50	1 part Conc. to 5 part Oil	1 – 2 fl oz
0.30	1 part Conc. to 9 parts Oil	1 – 2 fl oz
0.15	1 part Conc. to 19 parts Oil	1 – 2 fl oz

**SPACE SPRAY –CRAWLING INSECTS (Ants, Bed bugs, Beetles, Earwigs, Cockroaches, Silverfish, Spiders):** Use full strength. Prior to treatment, open cabinets, doors and equipment to be treated; turn off air conditioners and fans, extinguish all flames and close windows in the area to be treated. Apply as a space spray using a mechanical aerosol generator (no droplets >50 microns in diameter and 80% <30 microns) at

a rate of approx. 1 fl oz/1,000 ft<sup>3</sup> of room space. In commercial operations, subtract the space occupied by stored product or equipment from the cubic footage. Disperse toward areas suspected of harboring the greatest infestations of listed pests. Disperse in all locations (including around equipment, appliances and pallets, if desired) contacting as many insects as possible. Do not apply as a space spray in residences.

Do not remain in treated area after application and leave area closed for 1 hr. Ventilate thoroughly before occupants are allowed to reenter.

**DIRECT SPRAY OR VOID TREATMENTS:** Use equipment designed space or mist treatments. Follow the manufacturer's recommendations for proper equipment set up and operation. Place the tip of the applicator at or into the crack or crevice or opening to the void. Apply in short bursts into area being treated. Apply 1 sec of product for every 3 ft<sup>3</sup> of void area. **For Direct Spray,** apply the product in short bursts into the area where insects are to be contacted, such as corners of the room, behind and under furniture or other equipment. Apply from a distance of 18 - 24" away from the surface and allow the material to drift to area to be treated. The amount of product applied is not to exceed 0.125 fl oz /2 ft<sup>2</sup>. **For Bed Bugs:** Direct application into areas where bed bugs harbor. Do not direct this product at mattresses.

**HANDTANK OR PINSTREAM APPLICATION:** Direct application into cracks and crevices in elements of construction, walls, floors, underneath sinks, behind pipes and other places where insects harbor. Spot treatment is also permitted. For spot treatments, use a coarse low-pressure spray. Limit individual spot treatments to an area no larger than 20% of the surface area. Any individual spot treatment shall not exceed 2 ft<sup>2</sup>. Contact as many insects as possible. Ensure product will not stain surface or leave an unacceptable residue prior to application. The amount of product applied is not to exceed 0.125 fl oz /2 ft<sup>2</sup>.

**OUTDOOR USE**

**OUTDOOR GROUND FOGGING APPLICATION USING HAND HELD EQUIPMENT (Flies, Gnats and Mosquitoes):** Use in open areas near buildings and in campgrounds. Use preferably at a time when temperature is cool ( $\leq 75^{\circ}\text{F}$ ) and the wind velocity is approx.  $\leq 5$  mph. When using ULV equipment, apply at the rate of 4 fl oz/acre. Allow spray drift to penetrate dense foliage.

**FOR USE ON DOMESTIC ANIMALS/LIVESTOCK**

Use to protect beef cattle, dairy cattle and horses from horn flies, house flies and gnats, apply a light mist sufficient to wet the tips of the hair. To kill stable 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, but do not apply more than 1 time/day. **Do not use on dogs and cats.**

**Space Treatment Over Animals in Barns and Corrals or in Indoor Misting Systems Used in Commercial Barns, Stables and Animal Quarters::** Select proper dilution and treat with ULD equipment over animals, or apply through Indoor Misting Systems.

**USE RESTRICTIONS FOR INDOOR MISTING SYSTEMS**

- Not for use in outdoor residential misting systems (indoor or outdoor). See URBAN MISTING SYSTEMS under OUTDOOR TREATMENTS for directions for use in Urban/Residential automated misting systems.
- Do not apply this product in barns or stables where animals intended for slaughter or human consumption will be maintained.
- Do not apply when food, feed and/or water is present.
- When using this product, installers and service technicians must comply with the license, certification or registration requirements of the state(s), tribe(s) or local authority(ies) where they are installed.
- When applying via a remote activation device, do not apply when people and pets are present. If possible, when applying via automatic timer, set the timing for application when people and pets are unlikely to be present.
- Direct nozzles to spray towards the target area and away from areas where people are typically present.
- Do not use in evaporative cooling system.
- Do not use in misters located within 3 ft of air vents, air conditioner units or windows.
- If used in a system with a reservoir tank for the end use dilution, the system reservoir tank must be locked. Securely attach the end use pesticide label and a dilution statement to the system reservoir tank in a weather protected area or plastic sleeve. The dilution statement must be phrased as follows: this container holds \_\_\_ parts [product name] to \_\_\_ parts water.
- If used in a direct injection system, the pesticide container must be locked. Securely attach the end use label to the pesticide container in a weather protected area or plastic sleeve.
- This product must only be used in systems that have been calibrated to apply no more than the maximum application rate of 0.0033 lbs/1,000ft<sup>3</sup> (no animals present) [diluted to 1% = 6.5 fl oz/1,000 ft<sup>3</sup> = 0.0703 lbs/gal] or 0.0008 lbs/1,000 ft<sup>3</sup> (animals present) [diluted to 1% = 0.0005 lbs/fl oz = 0.0703 lbs/gal]

**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. Do not store above 100°F for extended periods of time. Storage below 32°F may cause freezing. 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 or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Nonrefillable container. Empty container by using the product according to the label directions. Do not reuse or refill this container! Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

[(<5 gal) Empty the remaining contents into application equipment or a mix tank and drain for 10 sec after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 sec. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 sec after the flow begins to drip. Repeat this procedure 2 more times.]

[(>5 gal) Empty remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 sec. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure 2 more times.]

Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by 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 or 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 0.5% – 1.0% dilution.**

**USE RESTRICTIONS:** The maximum application rate for wide area mosquito adulticide applications is 0.0025 lb pyrethrin/acre, or 0.025 lb piperonyl butoxide/acre, whichever is lower. When targeting *Aedes Taeniorhynchus* and other difficult species, applications may be made up to 0.008 lb pyrethrin/acre/day, or 0.08 lb piperonyl butoxide/acre/day, whichever is lower.

Do not apply more than 0.2 lb pyrethrins/acre/year or 2.0 lb piperonyl butoxide/acre/year, whichever is lower, in any treated area. 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.

Apply only when wind speed is  $\geq$  1 mph.

**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 ( $\leq$  75°F) and the wind velocity is approx.  $\leq$  5 mph.

**DILUTION:** Use a white mineral oil conforming to regulation 21 CFR 178.3620(b), or an odorless light petroleum hydrocarbon conforming to 21 CFR 172.882 or 40 CFR 180.910 (Inert ingredients used pre and post-harvest; exemptions from the requirement of a tolerance), and 180.930 (Inert ingredients applied to animals; exemptions from the requirement of a tolerance). Combine oil and concentrate as directed below and mix well just prior to application. Product may be applied diluted or undiluted.

Pyrethrin % Desired	Mixture Rate	Fluid Ounces of Diluted Product Delivers 0.0025 lb Pyrethrins/Acre	Finished Spray Gallons/Acre/Year
3.00	Undiluted	1.6 fl oz	1
1.00	1 Part Conc. To 2 Parts Oil	4.8 fl oz	3
0.50	1 Part Conc. To 5 Part Oil	9.7 fl oz	6
0.30	1 Part Conc. To 9 Parts Oil	16.1 fl oz	10
0.25	1 Part Conc. To 11 Parts Oil	19.4 fl oz	12
0.15	1 Part Conc. To 19 Parts Oil	32.2 fl oz	20
0.10	1 Part Conc. To 29 Parts Oil	48.5 fl oz	30

This product 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. This product may be used over agricultural crops. For best results, apply when temperature is  $\geq$  50°F, when meteorological conditions create a temperature inversion and wind speed is  $>$  1 mph. The application should be made so the wind will carry the insecticidal fog into the area being treated. Do not apply more than once/day at a rate of 0.0025 lb/acre/day for a maximum of 80 applications/year. No more than 10 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.

**GROUND-BASED:** To control adult mosquitoes and biting flies, apply up to 0.0025 lb of pyrethrins/acre. Spray equipment must be adjusted so that the volume median diameter is < 30 microns (Dv 0.5 < 30 µm) and that 90% of the spray is contained in droplets < 50 microns (Dv 0.9 < 50 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 ULV APPLICATION:** Apply up to 0.0025 lb of pyrethrins/acre while the machine is traveling 5 – 20 mph. The nozzle should be positioned 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 0.0025 lb of pyrethrins/acre (use a 300 ft swath width for acreage calculations). When using truck mounted ULV equipment, spray at a dosage rate prescribed in the flow rate table from a location up-wind where insects are to be controlled. Keep speed of vehicle to approx. 5 – 20 mph. Figure an application travel path for a coverage of a 300 ft swath. Apply no more than 0.0025 lb of pyrethrins/acre each day. Do not apply more than 1 time/day.

**FLOW RATE  
For Maximum Delivery  
300 ft swath**

	<b>Pyrethrin % desired fl oz/min</b>	<b>Pyrethrin % desired fl oz/min</b>
	<u>1.0%</u>	<u>0.5%</u>
<b>5 mph</b>	14.00	28.00
<b>10 mph</b>	28.00	56.00
<b>20 mph</b>	56.00	112.00

**HANDHELD AND BACKPACK EQUIPMENT:** When using ULV equipment, apply at a rate up to 1.33 fl oz/acre, undiluted, in a 30 ft swath. Allow spray drift to penetrate dense foliage. Apply no more than 0.0025 lb pyrethrins/acre 5 times/week. 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, dilute with light mineral oil (specific gravity of approx. 0.8 at 60°F, boiling point: 500 – 840°F). An N.F. grade oil is preferred.

**AERIAL APPLICATION (FIXED WING AND HELICOPTER):** To treat for adult mosquitoes and biting flies, apply up to 0.0025 lb of pyrethrins/acre with equipment designed and operated to produce a ULV spray application. Spray equipment must be adjusted so that the volume median diameter is < 60 microns (Dv 0.5 < 60 µm) and that 90% of the spray is contained in droplets < 80 microns (Dv 0.9 < 80µm). 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.

ULD® and Crack & Crevice® are registered trademarks of Whitmire Micro-Gen Research Laboratories, Inc.®

In addition to previously listed sites, this product is acceptable for use in and around the following sites:

**INDOOR:**

- Animal Areas & Quarters
- Auditoriums
- Bakeries
- Beverage Plants
- Boats
- Bottling Plants
- Brandy Storage Warehouses
- Buildings
- Buses
- Cabins
- Canneries
- Cattle Barns
- Churches
- Closets
- Condominiums
- Communication Centers
- Correctional Facilities
- Dairy & Livestock Barns
- Dried Fruit Processing Plants
- Drains & Sewers

- Dried Fruit Warehouses
- Drugstores
- Dumpsters
- Dwellings
- Egg Processing Plants
- Factories
- Flour Mills
- Food Handling Establishments
- Food Processing Plants
- Freight Containers
- Fruit Packing Sheds
- Garbage Cans
- Garbage Compactors
- Grain Elevators
- Grain Mills
- Grain Handling Equipment
- Granaries
- Homes
- 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
- Museums
- Mushroom Processing Plants
- Nursing Homes
- Offices
- Office Buildings
- Passenger Rail Cars
- Peanut Processing Plant
- Peanut Storage Warehouses
- Poultry Houses



Master Label

Poultry Processing Plants  
 Prisons  
 Public Buildings  
 Rabbit Processing Plants  
 Rabbit Houses  
 Railroad Cars  
 Recreational Vehicles  
 Research Animal Areas  
 Restaurants  
 Restrooms  
 Rice Mills  
 Shade Houses  
 Ships  
 Shipholds  
 Stables  
 Stable Bins  
 Stored Seed Warehouses  
 Stores  
 Supermarkets  
 Swine Houses

Textile Mills & Warehouses  
 Theaters  
 Tobacco Plants  
 Tobacco Warehouses  
 Townhouses  
 Trains  
 Trucks  
 Truck Trailers  
 USDA Inspected Facilities  
 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  
 USDA Inspected Facilities  
 Zoos

10/10

This product is also effective against the following insects when used according to label directions:

**FLYING INSECTS:**

- Bees
- Blow Flies
- Bottle Flies
- Cheese Skippers
- Deer Flies
- Flies
- Fungus Gnats
- House Flies
- Hornets
- Mosquitoes
- Mushroom Flies
- Stable Flies
- Vinegar Flies
- Yellowjackets

**GRAIN BORERS:**

- Larger Grain Borers
- Lesser Grain Borers

**CRAWLING INSECTS:**

- Bed Bugs
- Book Lice
- Cabbage Loopers
- Cabbage Worms
- Cockroaches
- Crickets
- Fire Ant Workers
- Firebrats

- Millipedes
- Pillbugs
- Scorpions
- Sowbugs

**FLEAS & TICKS:**

- Brown Dog Ticks
- Fleas
- Ticks

**SPIDERS & MITES:**

- Cheese Mites
- Clover Mites
- Grain Mites
- Mites
- Spiders

**LICE:**

- Cattle Lice

**WORMS:**

- Dark Mealworms
- Lesser Mealworms
- Yellow Mealworms

**BEETLES:**

- Black Carpet Beetles
- Carpet Beetles
- Darkling Beetles
- Dermestid Beetles
- Dried Fruit Beetles

- Drugstore Beetles
- Flat Grain Beetles
- Foreign Grain Beetles
- Fungus Beetles
- Hide Beetles
- Ground Beetles
- Merchants Grain Beetles
- Mexican Grain Beetles
- Red Flour Beetles
- Red Horned Grain Beetles
- Rusty Grain Beetles
- Sawtoothed Grain Beetles
- Spider Beetles
- Trogoderma Beetles
- White Marked Spider Beetles

**WEEVILS:**

- Bean Weevils
- Granary Weevils
- Maize Weevils
- Rice Weevils

**MOTHS:**

- Almond Moths
- Chocolate Moths
- Clothes Moths
- Cocoa Bean Moths
- Mediterranean Flour Moths

**CONDITIONS OF SALE AND WARRANTY**

Follow the **Directions for Use**. It is impossible to eliminate all risks inherently associated with use of this product, and therefore all such risk shall be assumed by the Buyer. Whitmire warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions for Use**, subject to the inherent risks, referred to above. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW: (A) WHITMIRE MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY, (B) BUYER'S EXCLUSIVE REMEDY AND WHITMIRE'S AND SELLER'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT, AND (C) WHITMIRE AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. Whitmire and the Seller offer this product, and the Buyer accepts it, subject to these **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of Whitmire.

Manufactured for:  
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