



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MAY 1 2003

Mr. Adrian Krygsman
Aventis Environmental Science
95 Chestnut Ridge Road
Montvale, NJ 07645

Subject: Amended Label to Include Use Over Crops that have Tolerances; Clarification of Droplet Size and Droplet Size Determination; Addition of Barrier, Surface and Urban Use Application Instructions; etc.
Aqua-Permanone®
EPA Reg. No. 432-796
Your Resubmission, sent by Email on April 16, 2003

Dear Mr. Krygsman:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable, subject to the comments below. Two (2) copies of the finished labeling must be submitted prior to releasing the product for shipment. A stamped copy of the label is enclosed for your records.

1. In the second paragraph on page 4, the label refers to "Aqua-Reslin", an alternate brand name for the subject product. Please ensure that the correct name appears consistently throughout the label, whether it is the primary or an alternate brand name product.
2. In the paragraph under "Ground Application", revise the statement regarding wind speed to read "Do not apply when ground wind speed exceeds 10 MPH."
3. Revise the last sentence of the first paragraph of the "Aerial Application" directions to read "Applications shall be made when temperatures are between 50°F and 95°F."

If you have any questions regarding this action, please contact Susan Stanton of my team at (703) 305-5218.

Sincerely,

Handwritten signature of Susan L. Stanton in cursive script, followed by the word "for" in a smaller, less distinct cursive script.

George T. LaRocca
Product Manager (13)
Insecticide Branch
Registration Division (7505C)

Enclosure

ACCEPTED
with COMMENTS
In EPA Letter Dated:

3 8 9

MAY 1 2003

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

432-796

AQUA-PERMANONE®

FOR APPLICATION ONLY BY PUBLIC HEALTH OFFICIALS AND TRAINED PERSONNEL OF
MOSQUITO ABATEMENT DISTRICTS AND OTHER MOSQUITO CONTROL PROGRAMS

A Synergized Permethrin Formulation

- *For Effective Adult Mosquito (Including organophosphate resistant species), Midge (biting and non-biting) And Blackfly Control*
- *For use as a Space Spray by Air and Ground Application to Control Adult Mosquitoes*
- *For use as a Space Spray By Aerial Application to Control Adult Mosquitoes*
- *For use as a Space Spray By Ground Application to Control Adult Mosquitoes*
- *Unique Patented Formulation Allows Dilution with Water Rather Than Oil*
- *Uses Water as a Diluent*
- *Fast and Effective Control of Adult Mosquitoes*
- *Provides Quick Knockdown and Effective Control of Mosquitoes, Black Flies, Gnats, Biting and Non-Biting Midges as well as Other Biting Flies*
- *For Aerial or Ground Application*
- *For Barrier/Surface Application*
- *A FFAST™ Formulation*
- *May be Applied Undiluted or Diluted in Water.*
- *ULV application provides excellent control at Rates Up to 0.007 Pounds Permethrin Per Acre.*

ACTIVE INGREDIENTS:

*Permethrin.....	20.0%
◆ Piperonyl Butoxide, Technical.....	20.0%
OTHER INGREDIENTS**:	60.0%
	100.0%

*(3-phenoxyphenyl)methyl(+/-)cis/trans 3-(2,2-dichloroethenyl) 2,2 dimethyl cyclopropanecarboxylate. Cis/trans ratio: min.35% (+/-) cis and max. 65% (+/-) trans.

◆ Equivalent to 16% (butylcarbityl)(6-propylpiperonyl)ether and 4.0% related compounds

** Contains Petroleum Distillate

Contains 1.67 pounds of permethrin and 1.67 pounds of piperonyl butoxide per gallon

EPA Reg. No. 432-796

EPA Est. No. XXXXXX

PRECAUCION AL CONSUMIDOR: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

(TO THE USER: If you can not read English, do not use this product until the label has been fully explained to you.)

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Side Panel For Additional Precautionary Statements

Net Contents:

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by the poison

	<p>control center or doctor.</p> <ul style="list-style-type: none"> • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eyelid open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for immediate treatment advice.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-334-7577 for emergency medical treatment information.</p>	

In case of Medical emergencies or health and safety inquiries or in case of fire, leaking or damaged containers, information may be obtained by calling 1-800-334-7577.

For Product information call Toll-Free: 1-800-331-2867

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed. Wash thoroughly with soap and water after handling.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. 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 apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment rinsate. Do not apply when wind speeds exceed 10 MPH.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are actively visiting the treatment area. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

DIRECTIONS FOR USE

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

READ ENTIRE LABEL FOR DIRECTIONS

SHAKE OR AGITATE THOROUGHLY BEFORE DILUTING: Diluted product must be thoroughly agitated before use. Avoid prolonged storage of excess formulation in equipment.

NOTICE: This concentrate is for dilution with water only; it can not be diluted in oil.

GENERAL

Aqua-Permanone is designed for application as an Ultra-Low Volume (ULV) aerosol to control adult mosquitoes and flies in residential, industrial, urban, recreational and other areas where adult mosquitoes and flies are found. The formulation greatly reduces the evaporation rate of water from the droplets and allows the water-based spray cloud to behave as that produced by a typical oil-based formulation. Aqua-Permanone is also recommended for application with mist-blowers, backpack sprayers, handheld sprayers, and low pressure hand sprayers for barrier or surface applications. Aqua-Permanone is used for control of annoyance flies and mosquitoes, mosquitoes and flies of public health or disease vector importance in areas such as but not limited to residential areas, industrial areas, urban areas, parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, and other areas where adult mosquitoes and flies occur.

Aqua-Permanone can be applied over specific growing crops and range grasses prior to harvest for the control of adult mosquitoes and biting flies within or adjacent to these areas. Application can only be made where the following crops are present:

- Almonds
- Apples
- Broccoli
- Brussels sprouts
- Cabbage
- Celery
- Cauliflower
- Cherries
- Corn, fodder
- Corn, forage
- Corn grain
- Eggplant
- Range Grasses
- Leafy vegetables
- Lettuce
- Mushrooms
- Onions, dry bulb
- Peaches
- Pears
- Peppers, bell
- Soybeans
- Tomatoes
- Vegetables, cucurbit
- Walnuts

In the treatment of corrals, feed lots, swine lots, poultry ranges and zoos cover any exposed drinking water, drinking fountains and animal feed before application.

Do not apply this product within 100 feet (30 meters) of lakes and streams.

Aqua-Permanone provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance flying insects such as houseflies.

Aerosol droplet size of an Aqua-Permanone application may be determined using generally acceptable methods such as but not limited to A.I.M.S.; PC-DC-III, Magnesium oxide or Teflon®coated glass slides. When droplet sizing using either an AIMS or PC-DCIII, the machine should be adjusted to the oil setting for neat Aqua-Reslin and all dilutions. When using coated glass slides, an adequate volume of air should be sampled by using, for example, rotating slide impingers. Depending on the apparatus used follow manufacturer's instructions for obtaining droplet measurements. Slides should be examined microscopically and the diameter of droplets measured in microns. Slides should be scanned until at least 200 droplets have been sized. If using Teflon coated slides a spread factor of 0.61 should be used to correct droplet diameters. If using magnesium oxide coated slides a spread factor of 0.86 should be used. The optimum droplet size range is from 8 to 30 microns by the volume median diameter (VMD) calculation.

All types of applications shall be conducted at temperatures between 50-95°F.

GROUND APPLICATION

Vehicle-Mounted ULV Cold Aerosol Generators or Vehicle-Mounted Non-Thermal Aerosol (Cold Fog): Apply through non-thermal ULV application equipment and base acreage calculations on the equipment manufacturer's recommended swath width. 84% of the spray droplets shall be between 6 and 18 microns. The VMD should be 8-25 microns. No more than 3% of the droplets should exceed 50 microns. Apply at a rate not to exceed 0.007 pounds of permethrin per acre. An optimum swath is created when Aqua-Permanone is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. An inversion of air temperatures and a light breeze is preferable. During applications ground wind speeds should not exceed 10 MPH. Application during the cooler hours of the night or early morning is recommended. Re-apply when recommended by Public Health Officials or Mosquito Abatement Districts.

Aqua-Permanone may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of Aqua-Permanone, the flow rate of the insecticide from the application equipment and the vehicle speed. Examples are given in the following Table.

Flow Rate (Fluid Ounces Per Minute)

Application Rate (lb per-methrin/Acre)	Vehicle Speed (MPH)	Flow Rate (Fluid Ounces Per Minute)				
		Undiluted	Diluted 1 + 1	Diluted 1 + 2	Diluted 1 + 4.5	Diluted 1 + 9

0.0015	10	0.70	1.40	2.10	3.8	7.0
	15	1.05	2.10	3.10	5.7	10.5
	20	1.40	2.80	4.20	7.6	14.0
0.0035	10	1.63	3.25	4.90	8.9	16.3
	15	2.45	4.90	7.30	13.4	24.4
	20	3.25	6.50	9.80	17.9	32.6
0.007	10	3.25	6.50	9.80	17.9	
	15	4.89	9.70	14.60	26.5	
	20	6.53	12.90	19.50	35.4	

Where dense vegetation is present, the use of higher rates and/or slower speeds is recommended. Applications shall be conducted when temperatures are between 50-95° F.

BACKPACK SPRAYER ULV APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 50 foot swath. Dilute Aqua-Permanone with water and apply at the rate of 8 ounces of finished spray per acre (based on a 50 foot swath, 8 ounces should be applied while walking 870 feet). To apply 0.0035 pounds of permethrin per acre, dilute 1 part Aqua-Permanone with 31 parts water and apply at the rate listed above. To apply 0.007 pounds of permethrin per acre, dilute 1 part Aqua-Permanone with 15 parts of water and apply at the rate listed above.

THERMAL AEROSOL APPLICATION: For use in thermal fogging equipment, such as truck or trolley mounted, handheld or other thermal fogging equipment. Apply this product mixed with water at a rate not to exceed 0.007 lbs. Per acre. For maximum control, direct the fog to drift into areas where adult mosquitoes are found.

BARRIER APPLICATIONS: For control and exclusion of resting or flying adult mosquitoes in areas such as animal quarters, roadsides, urban areas, residential areas, industrial areas, golf courses, parks, recreational areas, tire piles and all public areas where adult mosquitoes may occur. May be used to treat aggregation and harborage areas such as the perimeter of residential buildings, storage buildings, empty rail cars, truck transport trailers, abandoned buildings and other areas where adult mosquitoes find harborage.

For application to resting or aggregation surfaces using low pressure hand sprayers or other similar equipment which has demonstrated the capacity to deliver an even distribution of the labeled rate over the desired treatment area, mix 2.8 oz. in one gallon of water and apply sufficient spray to dampen surface, approximately 700-750 square feet of treated area. For application using backpack or truck-mounted mistblower equipment apply undiluted product at a rate not to exceed 7.7 oz. per acre or diluted at a rate not to exceed 0.1 lbs. Ai per acre. Direct spray onto foliage at the perimeter of areas from which mosquitoes or flies are to be excluded or direct spray into harborage areas or resting areas where adult mosquitoes or flies may be found.

URBAN ULV MOSQUITO CONTROL APPLICATIONS: For control of resting or flying adult mosquitoes, biting flies and biting midges in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages,

parking decks, crawl spaces or uninhabited buildings. Aqua-Permanone may be applied using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this application. Apply Aqua-Permanone at rates up to but not exceeding 0.007 lbs. permethrin per acre.

AERIAL APPLICATION

Aqua-Permanone may be applied either diluted or undiluted at rates of 0.0035 lbs to 0.007 pounds Permethrin-PBO/acre by fixed wing or rotary aircraft that are capable of making a ULV application. For aerial applications of Aqua-Permanone the use of ULV equipment and nozzles such as rotary atomizer or similar type that produce droplet VMD's less than 60 microns is recommended. Aerial application of Aqua-Permanone should be made at an altitude of 100-300 feet. Do not apply when ground wind speed exceeds 10 MPH. Applications shall only be made when recommended by public health officials and trained personnel of mosquito abatement districts and other mosquito control programs. Applications shall be made when temperatures exceed 50 °F (10° C).

For best results, treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. In order to compensate for windy conditions and ensure drift onto the target area aerial application with aircraft equiped with Global Positioning Systems (GPS) is recommended.

Always clean equipment after use to ensure against contamination.

IN FLORIDA: Do not apply by aircraft except in emergency situations and with the approval of the Florida Department of Agriculture & Consumer Services.

STORAGE AND DISPOSAL

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

Pesticide Storage and Spill Procedures: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

Pesticide Disposal: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

Container Disposal: Triple rinse or equivalent, then offer for recycling or reconditioning, 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.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following conditions, disclaimer of warranties and limitations of liability.

CONDITIONS: The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Aventis Environmental Science USA LP. All such risks shall be assumed by the user or buyer.

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Aqua-Permanone is a registered trademark and FFAST is a trademark of the Bayer Group

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