

#### U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (H7505P) 1200 Penńsylvania Avenue, N.W.

Washington, D.C. 20460

EPA Reg. Number:	Date of Issuance:			
2724-791	AUG	1	5	200
Term of Issuance:				
Conditional				
Name of Pesticide Prod	uct:			

RF2056OL

#### NOTICE OF PESTICIDE:

X Registration Reregistration

(Under FIFRA as amended)

Name and Address of Registrant (include ZIP Code):

Wellmark International 1501 E. Woodfield Road

Suite 200W

Schaumburg, IL 60173

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 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 sec. 3(c)(7) (B) since you agreed in your letter dated August 14, 2008 that:

- 1. You will submit/cite all data required for registration/reregistration of your product under FIFRA section 3 (c) (5) or 4(a) when the Agency requires all registrants of similar products to submit such data.
- 2. You will submit the listed data below, conducted in accordance with the 40 CFR Part 158 test guidelines referred to below:

Title of Study	OPPTS Guideline	Due Date	
Product Performance (Aerial Application/Adult Mosquitoes)	810.3400	August 15, 2010	
Product Performance (Black flies, stable flies, house flies)	810.3400	August 15, 2010	

Signature of Approving Official:  Signat	Date:	15	2008
		T	

- a. Submit aerial application product performance data from 5 geographic areas at the lowest label rate against adult mosquitoes. Field trial data should include testing against vectors from the genera *Culex*, *Anopheles* and *Aedes*.
- b. Submit product performance data for black flies, nuisance flies, non-biting flies, and biting flies. Ground ULV data may be submitted to satisfy this requirement.
  - a. Black flies test against biting black fly species
  - b. Nuisance/Non-biting flies test against house fly or little house fly
  - c. Biting flies test against stable flies.

The Agency will consider accepting a field test with caged lab reared individuals using a design similar to mosquito testing with ground ULV equipment. You will agree to meet with EPA to discuss your proposed field trial protocols.

Title of Study	OPPTS Guideline	Date Due	
One-year Storage Stability Study	830.6317	February 1, 2010	
Corrosion Characteristics Study	830.6320	February 1, 2010	

- c. You are required to generate a one year storage stability study for the subject product under warehouse conditions. It is recommended that observations be made at 0, 3, 6, 9, and 12 months. The corrosion characteristics study may be conducted concurrently. An accelerated study will not substitute for a one year study under warehouse conditions.
- 3. You will make the following label changes before you release the product for shipment:
  - a) Add the phrase "EPA Registration No. 2724-791"
  - b) Remove the term "and other disease of public health concern". The term is too broad and is not meaningful. Remove the term "of public health concern" everywhere it appears on the label.
  - c) Remove low pressure hand sprayers from the label as this use pattern is not supported by any data, nor is it consistent with fogging for wide-area adult mosquito control practices.
  - d) Dense vegetation rephrase this sentence to read: "Use the higher label rates when spraying areas where dense vegetation is present."
  - e) Change 1.5 lbs etofenprox per gallon to 1.48 pounds etofenprox/gallon.

- f) Remove "metal containers" from the container disposal section of the label. Your corrected 8570-1 form shall list a refillable 30 gallon plastic container and a non-refillable 2.5 gallon plastic container. Submit a revised 8570-1 to correct his oversight.
- g) PR Notice 2005-1 and non-food use language:
  - i) Page 1 Recommendation 1 is included and the language is acceptable.
  - ii) Page 2 Remove "Do not apply when wind exceeds 10 mph" from the Environmental Hazards section and move it to the Directions for Use.
  - iii) Change the environmental hazard statement to be consistent with Recommendation 3:

"This product is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. 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 water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters."

"This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. 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 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."

- h). Page 3 Directions for Use Add Recommendation 4 to the beginning of the section. "Before making the first application of the 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.
- i). Page 3 Delete: "Do not apply over agricultural crops that are used for feed, forage, or pasture. Do not apply to pastures where animals are grazing." Replace this language with the following: "Do not spray on or allow drift onto pastureland, cropland or potable water supplies. In the treatment of corrals, feedlots, swine lots, and zoos, cover any exposed drinking water, drinking water fountains and animal feed before application."

- j.) Page 3 Change "Apply RF-2056 OL at rates from 0.0035-0.0070 pounds of active ingredient per acre." to read "Apply RF-2056 OL at rates from 0.00175-0.007 pounds of etofenprox per acre." Specify the viscosity range of the oil to be used. k.) Page 3 Delete the "Droplet Analysis" section completely.
- l) Page 3 Ground Application
  - i. Delete "Application equipment must be tested annually to confirm pressure at the nozzle and nozzle flow rate is properly calibrated."
     Delete heading "Application from Vehicles" and rephrase the paragraph that follows:

"Use a vehicle mounted cold aerosol ULV sprayer to apply the product. Direct the spray equipment nozzle to provide even distribution of the product. For best results, apply perpendicular to the wind direction using a swath width of 300 feet. Spray equipment must be adjusted so that the volume median diameter (VMD) is between 10-30 microns  $(10\mu \le Dv\ 0.5 \le 30\mu)$  and that 90% of the spray is contained in droplets smaller than 50 microns (Dv0.9 < 50 $\mu$ ). Directions from the equipment manufacturer or vendor, pesticide registrant or 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."

The remaining language is this paragraph shall be moved to the "General" section of the directions for use and should be revised as follows: "Apply when wind is  $\geq 1$  m.p.h. A temperature inversion is preferable to keep the fog close to the ground and applications should be made when labeled insects are most active."

- m). Page 4 Thermal Fogging Application Specify the range of droplet sizes to be used in accordance with ground application from PR Notice 2005-1.
- n). Page 4 Aerial-Application. Delete "Application equipment must be tested annually to confirm pressure at the nozzle and nozzle flow rate is properly calibrated."
- o) Page 5 Rephrase the directions for aerial applications as follows:

"Apply RF-2056 OL aerially, either diluted or undiluted, by fixed wing or rotary aircraft. Apply at the rate of 0.00175 lbs-0.007 lbs. of etofenprox per acre. Apply using ULV equipped and capable aircraft. Spray equipment must be adjusted so that the volume median diameter (VMD) produced is less than 60 microns (Dv 0.5 <60  $\mu$ ) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 $\mu$ ). 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 test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Do not apply RF-2056 OL at altitudes below 100 feet. Apply at altitudes from 100-300 feet. Apply when wind speed on the ground is  $\geq 1$  mph. Apply when labeled insects are most active. For best results, use Global Positioning System (GPS) equipped aircraft."

- p.) Change "Storage and Disposal" to "Pesticide Storage and Disposal"
  - i. Revise the "Container Disposal" section:
  - ii. Remove the directions for metal containers as there are no metal containers listed on your application.
  - iii. Revise the language to read:

# Refillable 30 gallon drums:

"Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, triple rinse (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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 seconds. 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 two more times. "

# Non-refillable 2.5 gallon containers:

"Non-refillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying. Triple rinse as follows. Empty the remaining contents into application equipment or mix-tank and drain-container for 10-seconds after the flow begins to drip. Fill the container ¼ full of water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank. Drain container for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once triple rinsed, recycle if available."

Remove the reference to product use information and your web site. List your web site with your street address if desired. We do not review web sites or approve them with reference to product use and labeling.

- q). Warranty Statement: Revise first part of first sentence to read: "To the extent consistent with applicable law,..."
- r.) Precautionary Statements on Page 2.
  - i. First Aid Statements: Due to the level of petroleum distillate in this product, you must add the "If

Swallowed" directions to the first aid statements on your label as follows:

- "If swallowed:
- -Immediately call a poison control center or doctor.
- -Do not induce vomiting unless told 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."

Change the "Note to Physician" to read:

"Note to Physician: may pose an aspiration pneumonia hazard. Contains petroleum distillate."

ii. Change the general precautionary statement to read:

"Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling and before eating or smoking. Remove contaminated clothing and launder before reuse. Repeated exposure to etofenprox can cause skin irritation."

- 4. You will submit three (3) copies of your final printed labeling.
- 5. The basic Confidential Statement of Formula (CSF) dated July 17, 2007 is acceptable and is the CSF of record.

A stamped copy of the label is enclosed for your records. If you have any questions, please contact Kevin Sweeney at (703)-305-5063 or by email <a href="mailto:sweeney.kevin@epa.gov">sweeney.kevin@epa.gov</a>

Sincerely,

George LaRocca'
Product Manager 13

Registration Division (7505P)

Insecticide Branch

Enclosure

# **RF2056 OL**

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

- For the control of Adult Mosquitoes, Non-biting Midges, and Black flies
- For use as a Space Spray by Air and Ground Application to Control Adult Mosquitoes
- Can be used undiluted or diluted
- Quick permanent knockdown of Adult Mosquitoes
- · Controls Non-Biting Midges, nuisance and biting flies
- Controls adult mosquitoes that may carry West Nile Virus, Eastern Equine
   Encephalitis, St. Louis Encephalitis and other diseases of public health concern

ACTIVE INGREDIENT: Etofenprox (CAS #80844-07-1)	20%
OTHER INGREDIENTS*:	80%
Total	

Contains 1.5 lbs Etofenprox per gallon

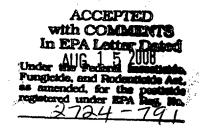
\*Contains petroleum distillates

# KEEP OUT OF REACH OF CHILDREN CAUTION

See additional precautionary statements on back/side panels

EPA Reg. No. 2724-XXX EPA Est. No.

Net Contents:



# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS - CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Repeated exposure to etofenprox can cause skin irritation.

FIRST AID	
If in eyes	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
	uct container or label with you when calling a poison control center or doctor or nent. You may also contact 1-800-[phone number] for emergency medical mation.
Note to Physici	an: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

#### **ENVIRONMENTAL HAZARDS**

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 invertebrates. 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 when 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 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 bodies of water when disposing of equipment rinsate or washwasters. Do not apply when wind speeds exceed 10 MPH.

This product is toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. 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 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. 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.

# PHYSICAL/CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. READ AND FOLLOW ALL LABEL DIRECTIONS.

#### **GENERAL**

RF-2056 OL is an effective insecticide used at low volumes to control adult mosquitoes, non-biting midges, biting and non-biting flies. Use RF-2056 OL, either undiluted as Ultra-Low Volume (ULV) or diluted with mineral oil or other suitable oil diluent, for the control of pest species in or near residential, industrial, commercial, urban, recreational areas, woodlands, golf courses, and other areas where these pests are a problem. Do not apply over agricultural crops that are used for food, forage, or pasture. Do not apply to pastures where food animals are grazing. Apply RF-2056 OL aerially (both fixed and rotary aircraft) for low volume applications or through mist-blowers, backpack, handheld, and low pressure hand sprayers for ground applications. RF-2056 OL will control flies and mosquitoes of public health concern and can be used as part of a total integrated pest management program for controlling disease vectors of public health importance. Apply RF-2056 OL at rates from 0.0035-0.0070 [0.00175 to 0.0070] pounds of active ingredient per acre. Dilute this product with oil only; do not mix with water.

Do not retreat a site more than once in 3 days; make no more than 2 applications to a site in any 1 week or 25 applications in one year. 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.

### Droplet size analysis

Determine droplet size of RF-2056 OL using generally acceptable methods such as A.I.M.S., PC-DC-III, or Teflon coated glass slides. When determining droplet size using either an AIMS or PC-DC-III, adjust the machine to the oil setting for undiluted or diluted applications. When using coated glass slides, ensure that sufficient airflow is used when determining droplet size, best results will be achieved by using rotating slide impingers. Read and follow the manufacturer's instructions when using any droplet size analyzer. Examine slides under a microscope and measure droplet size in microns. Scan slides until at-least 200 droplets-have-been-sized. When using Teflon-coated-slides, use-the-spread factor of 0.61 to correct droplet diameters. The optimum droplet size range for efficacy against adult mosquitoes is from 10 to 30 microns.

#### **GROUND APPLICATION**

Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate is properly calibrated.

#### **Application from Vehicles**

Use a vehicle-mounted cold aerosol generator to apply this product. Follow the equipment manufacturer's recommendation for calibration and adjustment of swath width. Direct the spray equipment nozzle to provide an even distribution of the product. For best results, use a swath width of 300 ft using a droplet size between 10-30 microns. The recommended VMD should be 10 to 30 microns with no more than 10% of the droplets > 50 microns. Target the application rate for 0.0035 – 0.0070 [0.00175 to 0.0070] pounds active ingredient per acre. To create the most effective swath, apply the material perpendicular to the wind direction. Do not apply if the wind speed exceeds 10 MPH. An air inversion and a light wind condition are preferable, application during the cooler hours of the night or early morning can increase the effectiveness of the application. For best results, apply when mosquitoes are most active and in weather conditions that keep the resulting spray close to the ground.

The appropriate application rate can be achieved by altering the dilution rate of RF-2056 OL. Refer to the following chart for examples.

Application	Vehicle	Flow rates			
rate	Speed	Undiluted	Diluted	Diluted	Diluted
pound A.I.	MPH		1 to 1	1 to 2	1 to 4.5
per acre		Oz/minute	Oz/minute	Oz/minute	Oz/minute
[0.00175]	[10]	[0.9]	[1.8]	[2.74]	[4.57]
	[15]	[1.4]	[2.7]	[5.40]	[9.90]
,	[20]	[1.8]	[3.6]	[7.20]	[13.20]
0.00350	10	1.8	3.6	5.48	9.140
	15	2.7	5.4	10.80	19.80
	20	3.6	7.2	14.40	26.40
0.00700	10	3.60	7.20	10.78	19.80
	15	5.40	10.80	16.18	39.60
·	20	7.20	14.40	21.50	52.80

Where dense vegetation is present, use higher rates and/or slower speeds. Conduct applications when temperatures are between 50-95° F.

## **Backpack Sprayer ULV Application:**

Apply RF-2056 OL diluted or undiluted through non-thermal ULV backpack sprayer capable of applying the product in the 10 to 30 micron range. Apply product to the area as evenly as possible. Apply at the rate of 0.0035-0.0070 [0.00175 to 0.0070] pounds active ingredient per acre.

**Urban ULV Mosquito Control Applications:** For control of resting or flying adult mosquitoes, biting flies and non-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, apply RF2056 OL using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this application. Apply RF2056 OL at rates up to but not exceeding 0.007 pounds of etofenprox per acre.

#### Thermal Fogging Application

Apply using a truck, dolly mounted, handheld, or other thermal fogging equipment. Following the equipment manufacturer's instructions, apply this product at a rate of 0.0035-0.0070 [0.00175 to 0.0070] pounds active ingredient per acre. Direct fog to areas where mosquitoes and other pests are located.

### **AERIAL APPLICATION**

Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate is properly calibrated.

Apply RF-2056 OL aerially, either diluted or undiluted, by fixed wing or rotary aircraft. Use rates of 0.0035 to 0.0070 [0.00175 to 0.0070] pounds of active ingredient per acre. Use aircraft equipped and capable of making ULV applications to apply the material. For applications using ULV equipment, such as a rotary atomizer or similar type equipment, ensure that the droplet VMD's are less than 60 microns with greater than 90% of the droplets < 100 microns. Apply RF-2056 OL 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. For best results, use GPS equipped aircraft.

For best results, treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground.

[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 or disposal.

**Storage and Spill Procedures**: Store upright at room temperature, [but do not store at temperatures below 75° F]. 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**: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Disposal: (For plastic containers) 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. (For metal containers) Triple rinse (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of container in a sanitary landfill or by other procedures approved by State and local authorities.

In case of an emergency or for product use information, call 1-800-[phone number] or visit our web site: [URL]

To the fullest extent permitted by law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

Wellmark International
1501 East Woodfield Road 200 W
Schaumburg, IL 60173
Made in USA