

2724-427

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

MAR 12 2004

Nancy Huebl
Wellmark International
1100 East Woodfield Road, Suite 500
Schaumburg, IL 60173

Sub: RF-9811-EC

EPA Reg. No 2724-427

Your application dated July 21, 2003 to revise the directions for use and to add new uses (stored commodities) to the label as covered under the existing tolerance exemption

Dear Ms. Huebl:

The labeling amendment referred to above submitted in connection with registration under FIFRA, as amended, is acceptable. A stamped copy of the label is enclosed for your records.

Sincerely,

A handwritten signature in cursive script that reads "Sheryl K. Reilly".

Sheryl K. Reilly, Ph.D.

Chief

Biochemical Pesticides Branch

Biopesticides and Pollution Prevention Division

7511C

MASTER LABEL
[Optional text]

RF-9811 EC

Alternate Brand Names: DIACON® II (**sublabel B**); RIZACON™ (**sublabel B**);
APEX® (**sublabel C**); STRIKE® Ultra Professional Midge Control (**sublabel D**);
DIANEX® Emulsifiable Concentrate for Tobacco (**sublabel A**)

[For protection of stored tobacco from damage by Cigarette Beetle and Tobacco Moth]

An Insect Growth Regulator

[to Control Insect Pests in Tobacco Processing and Storage Facilities]

[to Prevent the Emergence of Adult Sciarid Flies In Mushroom Culture]

[To Control Stored Product Insects in Stored Food Commodities, such as Cereal Grains, Grain Sorghum (Milo), Corn, Popcorn, Birdseed, Peanuts, Sunflower Seeds]

[to control insect pests in seeds]

[to Prevent the Emergence of Adult Filter Flies and Non-biting Midges in Waste Water Treatment Facilities]

ACTIVE INGREDIENT:

(S)-Methoprene (CAS #65733-16-6)

33.6%

OTHER INGREDIENTS*:

66.4%

Total:

100.0%

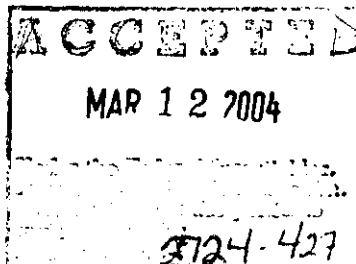
*Contains petroleum distillates

This product contains 2.5 lbs/gallon (288 grams/liter) (S)-methoprene active ingredient

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Back Panel for Additional Precautionary Statements



EPA Reg. No. 2724-427

EPA Est. No.

NET CONTENTS: 1 liter (33.8 fl oz)
2.5 liters (.66 gal)

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS - CAUTION: Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye 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 eyes. • Call a poison control center or doctor for treatment advice.
If on skin	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
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 a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact [phone number] for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

(Include WPS for APEX Mushroom Use pattern)

[Personal Protective Equipment(PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, chemical resistant gloves, such as neoprene rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), barrier laminate, or viton (≥ 14 mils). Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.]

[Engineering Controls Statements:

When handlers use closed systems or enclosed cabs in a manner that meets the

requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.]

[IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.]

[User Safety Recommendations:

Users should:

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

ENVIRONMENTAL HAZARDS: (For Sublabel D only) Do not contaminate water when disposing of rinsate or equipment washwaters. **(Sublabels A/B/C are indoor products – no Environmental Hazards statement required.)**

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

[Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.]

[AGRICULTURAL USE REQUIREMENTS

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 hours.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls
- Chemical-resistant gloves, such as neoprene rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), barrier laminate, or viton (≥ 14 mils)
- Shoes plus socks

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

SUBLABEL A

(Directions for Use for RF-9811 EC [DIANEX]-Stored Tobacco Products)

INTRODUCTION: RF-9811 EC is an emulsifiable formulation of the insect growth regulator, (S)-methoprene. It is designed for use in aerosol generators and as a concentrate for use as an aqueous spray. (S)-methoprene, unlike traditional pesticides, does not immediately kill insects; instead, it interferes with the normal processes of insect development and prevents adult emergence. RF-9811 EC, when used according to label directions, controls these and other insect pests:

- Almond moth (*Ephesia cautella*)
- Cigarette beetle (*Lasioderma serricorne*)
- Sawtooth grain beetle (*Oryzaephilus surinamensis*)
- Red flour beetle (*Tribolium castaneum*)
- Tobacco moth (*Ephesia elutella*)
- Indian meal moth (*Plodia interpunctella*)
- Lesser grain borer (*Rhyzopertha dominica*)
- Merchant grain beetle (*Oryzaephilus mercator*)
- Confused flour beetle (*Tribolium confusum*)
- Warehouse beetle (*Trogoderma* spp.)

Do not apply directly to tobacco being processed. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

Application with Aerosol Generators: Apply RF-9811 EC as a mist or aerosol. Dilute with water as required following the instructions of the spray equipment manufacturer. Apply RF-9811 EC at the rate of 1 ml per 1,000 square feet as a surface treatment. For fogging applications, use 3 ml per 10,000 cubic feet.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before re-entry. Repeat application as required.

Application as an Aqueous Spray: To prepare a diluted spray solution, partially fill the mixing container with water, add 1 ml of RF-9811 EC, mix, and complete filling with a total of 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low-pressure sprayer typically used for indoor applications. Treat all areas which may harbor insect pests. Use diluted spray solution within 72 hours of mixing. Agitate before each use. Repeat application as required.

SUBLABEL B

(Directions for Use for DIACON -Stored Product Insects)

PRODUCT INFORMATION: (S)-methoprene, the active ingredient in DIACON®, protects stored grains from damaging insects by interfering with the normal process of insect development. Unlike traditional pesticides, DIACON is not an adulticide, but its residual activity prevents the development of larvae into adults. DIACON, when used according to the label directions, prevents regeneration of these and other insect pests: almond moth, Indian meal moth, cigarette beetle, lesser grain borer, sawtooth grain beetle, merchant grain beetle, red flour beetle, and confused flour beetle. Treat existing insect populations with an adulticide before applying DIACON for residual protection.

Apply DIACON to any food commodity (including but not limited to: cereal grains, corn, sunflower, canola, popcorn, wheat, spices, sorghum, rice, cocoa, peanuts, oats, and millet) for control of insect larvae. DIACON may also be used to treat pet food, animal feedstuffs, birdseed, and cotton hulls. DIACON may be applied to seed stock. Treated commodities may be processed within 24 hours following an application.

If stored grain insect populations exceed 2 insects per 1 kg sample during storage, fumigate to avoid grain-damage from existing insects. Refer to Federal Grain Inspection Service regulations for stored grain for more information on sampling and insect thresholds.

Stored Commodities: For protection of stored food, grain, animal feed, seeds used for oil, and seed stock against stored product insects - for optimum results, thoroughly clean and treat storage areas prior to storing commodities. DIACON may also be applied as a top-dressing to stored products that have been placed into bins or storage areas. For top-dressing applications, spray or fog the bin headspace paying particular attention to the top of the commodity mass, beams, ceilings, and rafters. Thorough coverage is essential. For surface treatments, apply 1 ml (1/30 oz) of DIACON per 1,000 square feet; or for space spray, apply 3 ml (1/10 oz) per 10,000 cubic feet in sufficient diluent to provide adequate coverage. Do not flood top-dress area.

GENERAL DIRECTIONS FOR TREATMENT OF GRAIN BEING STORED: Dilute DIACON in water, FDA-approved food grade oils* or soybean oil and apply to the moving grain stream as a uniform coarse spray. Final water or oil dilution volume is 5 gallons of liquid per 1,000 bushels of grain and 10 gallons of liquid per 1,000 bushels of rice. Lower volumes of diluent may be used but, it is important to assure that the commodity mass is uniformly treated. Apply final spray volumes of oil solutions at the oil manufacturer's label application rates. Agitate water or oil solutions .

A range of rates for different commodities is provided for flexibility during varying storage periods and conditions. For maximum residual, use higher rates; the lowest application rate offers shorter residual for commodities stored \leq 6 months.

Apply DIACON in solution in accordance with the general directions, to stored products at the following rates per 1,000 bushels:

APPLICATION RATES

COMMODITY	fl oz	ml	fl oz	ml	fl oz	ml	fl oz	ml
Wheat	14	420	7	210	3.5	105	1.75	52
Corn	14	420	7	210	3.5	105	1.75	52
Sorghum (milo)	14	420	7	210	3.5	105	1.75	52
Barley	12	360	6	180	3.0	90	1.50	45
Rice	12	360	6	180	3.0	90	1.50	45
Oats	8	240	4	120	2.0	60	1.00	30
Peanuts*	8	240	4	120	2.0	60	1.00	30
Sunflower	8	240	4	120	2.0	60	1.00	30

*For peanuts, use water solution only

To determine application rates for other commodities, contact your distributor or Wellmark International.

USE NOTES

- Apply DIACON grain protectant only to grain of known treatment history.
- Check spray equipment calibration regularly to insure proper application rates.
- Add the measured amount of DIACON to a spray tank partially filled with water or oil, mix, and complete filling with specified quantity of carrier.
- Use diluted spray solution within 72 hours of mixing. Agitate before each use.
- Clean up extremely dusty sites prior to application.
- DIACON may be used in metering systems in conjunction with dust-controlling oils. Follow the equipment and oil manufacturers' directions; ensure that the label rate of DIACON is applied uniformly.

DIACON may also be used as a fogging concentrate or surface spray for the treatment of stored product pests and other insect pests infesting warehouses, silos, storage bins or other stored commodity areas. DIACON may also be applied in food processing, food service, food preparation, and food handling establishments including, mills, bakeries, restaurants, taverns, industrial buildings, breweries, candy processing, pet food production, grocery stores, modes of transportation (rail cars, ships, and trucks), cereal processing and bottling facilities. In addition to treating raw commodities and associated processing facilities, DIACON may be applied to packaged, canned, and bottled foodstuffs, as well as associated packaging such as boxes, liners, and pallets. For application of DIACON as a fogging or space spray, use the following directions.

Application with Aerosol Generators: Apply DIACON as a mist or aerosol. Dilute with water or oil as required following the instructions of the spray equipment manufacturer. Apply DIACON at the rate of 1 ml (1/30 oz) per 1,000 square feet of surface area or 3 ml (1/10 oz) per 10,000 cubic feet. Use appropriate spray equipment to achieve uniform coverage.

Close room or warehouse and shut off all ventilating systems. Apply the product as a fine mist in the air above the trays, shelves, and in areas where dust may accumulate. Leave the room closed for 30 minutes to allow spray mist to settle. Do not remain in treated areas and ventilate before re-entry. Repeat application as required.

Application as an Aqueous Spray: To prepare a diluted spray solution, partially fill the mixing container with water, add 1 ml (1/30 oz) of DIACON, mix, and complete filling with a total of 1 gallon of water. Apply at a rate of 1 gallon of diluted solution per 1,000 square feet of surface area with any low-pressure sprayer typically used for indoor applications. Treat all areas that may harbor insect pests. Use diluted spray solution within 72 hours of mixing. Agitate before each use. Repeat application as required.

When tank mixing DIACON with conventional adulticides, the more stringent label will apply. DIACON may also be used or mixed with diatomaceous earth or dust-controlling oils.

SUBLABEL C

(Directions for Use for APEX – Mushrooms)

(S)-methoprene, the active ingredient in APEX® insect growth regulator (IGR) is a chemical analog of a natural insect hormone. Unlike traditional pesticides, the presence of (S)-methoprene does not result in immediate insect kill; it interferes with the normal process of insect development. APEX will prevent the emergence of adult sciarid flies when incorporated into the mushroom growing medium. Under most conditions, fly control is achieved without adverse effects on mycelium growth or mushroom yield. Pupae and adults present at the time of application will not be affected. If high adult populations are present initially, use of a conventional adulticide will ensure the best overall results. After treatment with APEX, larvae will continue to develop to the pupal stage where they will die. Estimation of adult fly populations should be no earlier than 2 weeks after treatment to assess the full benefit of APEX.

METHOD, RATE, AND TIMING OF APPLICATION: For best results, incorporate APEX in the mushroom growing medium.

Follow either **METHOD A, METHOD B, METHOD C, OR METHOD D** Application Instructions.

A. INCORPORATE IN CASING AT TIME OF CASING

Apply APEX at the rate of 5½ fluid ounces per 1,000 sq ft . Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after placement.

B. INCORPORATE IN COMPOST AT TIME OF SPAWNING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER

In Compost: Apply APEX at the rate of 5½ fl oz/1,000 sq ft in adequate water for even distribution. Spray or sprinkle on the surface of compost at the time of spawning and thoroughly incorporate using a spawning machine or other suitable mechanical means.

In Casing: Apply APEX at the rate of 2¼ fl oz/1,000 sq ft. Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

C. COMPOST SURFACE DRENCH BEFORE CASING AND IN CASING AT TIME OF PLACEMENT OF CASING LAYER

For those crops that have a 16-day or longer spawn run, use a split application .

First Application, on compost: Apply APEX 12-13 days after spawning. Drench APEX evenly on the surface at the rate of 2¾ fl oz/1,000 sq ft in adequate water for even distribution.

Second Application, in casing: Apply APEX at the rate of 2¾ fl oz/1,000 sq ft. Apply evenly and mechanically mix into casing material prior to the casing operation, or drench evenly onto the surface of the casing immediately after setting it in place.

D. INCORPORATE IN CASING AT TIME OF CASING FOLLOWED BY A SURFACE APPLICATION PRIOR TO FIRST BREAK OF MUSHROOMS

First Application, in casing: Apply 5½ fl. oz. APEX per 1,000 sq ft in adequate water for even distribution and mechanically mix into the casing material prior to the casing operation.

Second Application, on casing surface just prior to first break: Apply 2¾ fl. oz. APEX per 1,000 square feet in adequate water for even distribution as a surface drench prior to first break of mushrooms.

MIXING AND HANDLING INSTRUCTIONS

1. Add the measured amount of APEX to a spray tank partially filled with water, mix, and complete filling with specified quantity of water.
1. Use diluted spray solution within 72 hours of mixing. Agitate before each use.

EFFECT ON MUSHROOMS

In most cases, treatment with APEX has a beneficial effect on mushroom yield through control of damaging sciarid fly larvae. The user can determine if reduced crop yields will occur under his own cultural conditions by conducting test treatments on small plots.

SUBLABEL D

Directions for Use for non-biting midges/filter flies

INTRODUCTION:

RF-9811 EC is a unique product that controls filter flies (*Psychoda* spp.), non-biting midges (*Chironomidae*), and other nuisance aquatic insect species infesting waste water treatment facilities. RF-9811 EC contains an insect growth regulator (IGR) that is effective on the developing stages of insect pests.

RF-9811 EC does not kill adults but affects the larval stages as they grow and develop. RF-9811 EC stops the formation of pupae of insect pests, thereby eliminating adult populations.

RF-9811 EC stops the cycle of reproduction, keeping pest infestations under control. Continued use of the product prevents these pests from rebounding into unmanageable infestations.

MIXING AND HANDLING INSTRUCTIONS:

Partially fill spray container with water; then add the specified amount of RF-9811 EC, agitate, and complete filling with water. Agitate mildly during application. To agitate use recirculation pump, mixer, air pump, or other suitable equipment.

USE APPLICATIONS

Waste Water Treatment Facility Pests: Use RF-9811 EC in trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water treatment facilities where non-biting midges, filter flies, and other nuisance aquatic insect pests are a problem.

What to Expect in Waste Water Treatment Facilities**Continuous Flow Sewage (waste water)**

In order to achieve effective results, apply RF-9811 EC daily for 10 days. If applications are not made on a continuous basis, erratic results may occur. Following initial applications of RF-9811 EC, a gradual reduction in the number of adult pests will be seen over approximately a 1 week period. Reduction in adult populations will be very noticeable within a 2 week period following continuous application. Due to varying conditions or heavy infestations, a longer period may be necessary to achieve control. Since the mode of action of RF-9811 EC is to prevent adult emergence, existing adults and pupae present at the time of initial application will complete their life cycle.

If application of RF-9811 EC is halted following population suppression, rebound of the population can be expected within 2 to 3 weeks after stopping application. For continuous suppression throughout the pest season, continue applications of RF-9811 EC.

Sludge or Solid Waste Applications

For solid waste applications, use 3 ounces per million gallons of sludge or solids . Apply dilution until the drying beds have been filled. Following filling of the drying beds, halt the application. Apply the dilution at the influent side as the sludge or solids enter into the drying beds. Application of RF-9811 EC to solids will prevent the emergence of adult insect pests thereby keeping infestations under control.

METHODS OF APPLICATION

Waste Water Treatment Facilities: Dilute RF-9811 EC with water prior to use. Apply RF-9811 EC by using a metering pump, drip bucket, or other suitable equipment. Metering pumps are the most efficient and accurate method of application. The application method will influence appropriate product dilution. Prepare the desired volume of dilution to apply over a 6-8 hour period , or in cases of sludge beds, apply until the beds have been filled. When using delivery devices, it is important to calibrate the device to deliver the required amount of RF-9811 EC over a 6-8 hour period.

APPLICATION RATE

Waste Water Treatment Pests:

Initial Application –Apply 3.0 ounces of RF-9811 EC per 1 million gallons of sewage (waste water) in sufficient water to apply uniformly at the influent side .

Application to Waste Water – Trickling Filter: Apply 3 ounces of RF-9811 EC per 1 million gallons of sewage [waste water] in sufficient water to uniformly apply the material. Apply at times of low periods of flow (typically evening through early morning hours) for 6-8 hours. Discontinue treatment during peak flow periods and repeat applications the following day during the low flow period. Continue this application method for 10 days or until suppression of pests is achieved. Repeat the application every 15 days or as necessary to control pests.

APPLICATION SITES

Waste Water Treatment Facilities: Apply RF-9811 EC to sewage as it flows into trickling filters, sludge drying beds, clarifiers, holding ponds, lagoons, influent structures, stagnant or standing water, or other areas of waste water facilities where pests are a problem.

Apply RF-9811 EC as the sewage enters (influent areas) the targeted processing area. For best results, apply at the influent side .

STORAGE and DISPOSAL: Do not contaminate water, food, or feed by storage or disposal. Storage - Store in a cool dry place. Pesticide Disposal - Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. Container Disposal - [Metal Containers]: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. [Plastic Containers]: 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. [Glass Containers]: Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.

WARRANTY AND CONDITIONS OF SALE

Seller makes no warranty, expressed or implied, concerning the use and handling 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.

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Wellmark International
Schaumburg IL 60173

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For information or in case of an emergency, call 1-800-XXX-XXXX.
Visit our Web site: [web site address]