

45385-24

7/8/2013

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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

7-8-13

Benjamin Baker  
CTX-CENOL, Inc.  
1393 East Highland Rd.  
Twinsburg, OH 44087

Subject: Amended Reregistration Label  
Product Name: Pyronox Dual 0.5  
EPA Registration Number: 45385-24

Dear Mr. Baker:

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 pyrethrin, pbo, and mgk-264 RED(s), 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 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.

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 Any previously dated CSFs are superseded.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 and Alternate CSF, both dated 10-8-12

A copy of your label stamped "Accepted" is enclosed 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).

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If you have any questions about this letter, please contact either Erik Kraft at (703-308-9358) or via email at [Kraft.Erik@epa.gov](mailto:Kraft.Erik@epa.gov) or Richard J. Gebken at (703) 305-6701 or via e-mail at [Gebken.Richard@epa.gov](mailto:Gebken.Richard@epa.gov).

Sincerely yours,



Richard J. Gebken  
Product Manager (10)  
Insecticide Branch  
Registration Division (7504P)

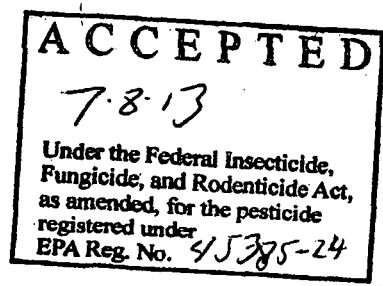
# PYRONOX DUAL 0.5

- Synergized Pyrethrum Spray
- "Ready-To-Use" and Spray Directions "For Dilution"
- For Use in the Home and Non-Food and Food areas of Food Processing Plants, Schools, Warehouses, Office Buildings, Theaters, Garages, Hotels, Motels, Kennels and Hospitals

{pictures of listed insects on label optional}

**ACTIVE INGREDIENTS:**

Pyrethrins [CAS# 8003-34-7].....	0.50%
Piperonyl Butoxide* [CAS# 51-03-6] .....	1.00%
N-Octyl bicycloheptene dicarboximide.....	1.67%
<b>OTHER INGREDIENTS**:</b> .....	<b>96.83%</b>
	100.0%



\* (butyl carbityl)(6-propylpiperonyl) ether and related compounds.  
 \*\*Contains petroleum distillates.

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EPA Est. No.:

**KEEP OUT OF REACH OF CHILDREN**  
**CAUTION**

Stop: Read Label Before Use  
 See Side Panels for Additional Precautionary Statements

FIRST AID	
<b>If Swallowed:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in Eyes:</b>	<ul style="list-style-type: none"> <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.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If on Skin or Clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call 1-800-858-7378 for emergency medical treatment advice.	
NOTE TO PHYSICIAN	
Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

**NET CONTENTS:**

## PRECAUTIONARY STATEMENTS

### Hazards To Humans & Domestic Animals

#### CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators and other handlers, must wear the following:

- Long-sleeved shirt
- Long pants
- Shoes and socks
- Chemical-resistant gloves (such as those made out of Barrier Laminate, Nitrile Rubber, Neoprene Rubber or Viton [selection category E]).

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 prefix TC-21C or
- any R, P, or HE filter.

In addition to the above PPE, applicators using hand-held foggers in an enclosed area must wear a half-face or full face or hood style NIOSH approved respirator with:

- a dust/mist filtering cartridge with MSHA/NIOSH approval number prefix TC-21C, or
- a cartridge or canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G),
- or a cartridge or canister with any R, P, or HE filter.

See engineering controls for additional requirements.

#### 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 materials that have been drenched or heavily contaminated with this 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.
- User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should 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

This product is 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 may contaminate water through runoff. 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 pesticide 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.

## DIRECTIONS FOR USE

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

### Use Restrictions

- For use as a surface spray: Do not enter or allow others to enter until sprays have dried.
- For use as a space spray: Do not enter or allow others to enter until vapors, mists and aerosols have dispersed and the treated area has been thoroughly ventilated.
- 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 use as a space spray: Do not remain in treated area. Exit area immediately and remain outside the treated area until aerosols, vapors, and/or mists have dispersed.
- Do not apply this product in any room being used as a living, eating or recovery area by patients, the elderly or the infirm when they are in the room.
- Remove or cover exposed food and drinking water before application.
- Remove or cover dishes, utensils, food processing equipment, and food preparation surfaces or wash them before use.
- For use in feed/food handling and processing facilities: Do not make space spray applications when facility is in operation. Prior to space spray applications, cover or remove food. Prior to space spray applications, cover food processing surfaces or clean after treatment and before use.
- Do not apply directly into sewers or drains or to any area like a gutter where drainage to storm sewers, water bodies or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.
- Not for use in outdoor residential misting systems.
- Remove pets, birds and cover any water inhabited by fish (such as aquariums and ornamental fish ponds) before application. Turn off aquarium filtering systems before spraying and wait approximately 15 minutes after application before turning the filter back on.

### FOR FOGGING EQUIPMENT AND HAND SPRAYERS USE.

#### UNDILUTED

**For Pests In Dried Fruit Products:** To kill Accessible Stages of insects such as Indian Meal Moth, Dried Fruit Beetle, Confused Flour Beetle, Sawtoothed Grain Beetle and Roaches, infesting dried fruit products in storage or being processed, close the room or warehouse and shut off all ventilating systems. Dispense this product as a fine mist in the air above trays or shelves of dried fruit. Use spraying device similar to the Microsol Machine or use fixed ceiling sprayers that produce a very fine aerosol spray. Do not apply to fruit directly. If overhead sprayers are used, be sure that the spray is discharged from a position of at least 6 feet over the top trays of fruit. Use a dosage of 1 ounce per 1000 cubic feet of room space. Repeat applications as necessary for insect control but do not exceed more than ten applications at this dosage in any given month.

**Stored Food Products:** For food stored in multiwall paper bags or cloth bags in warehouses, storage rooms and similar locations: To kill the adult and accessible forms of insect pests such as Rice Weevil, Yellow Meal Worm, Cadelle, Confused Flour Beetle, Sawtoothed Grain Beetle, Angoumois Groin Moth, Mediterranean Flour Moth and Indian Meal Moth, close room or warehouse and shut off all ventilating systems. Use a spraying device similar to the Microsol machine or used fixed ceiling sprayers that produce a very fine spray. Space sprays may be made to the surfaces of bags of stored food products. Use a dosage of one fluid ounce of this spray per 1000 cubic feet of room space. Direct application to food contact surfaces is prohibited.

**Indoor Agricultural Premises and Commercial Animal Housing and Equipment (animals not present):** To kill flies, mosquitoes and gnats, close room and shut off ventilating systems. Dispense this product as a fine mist in sprayers that produce a very fine aerosol spray. Use a dosage of 1 ounce per 1000 cubic feet of space. Leave room closed for at least ten minutes. Sweep up and destroy fallen insects. Do not apply more than 1 time per day.

**Indoor Food Handling and Processing Facilities:** *Use as a space spray* to kill Accessible Stages of insects such as Indian Meal Moth, Dried Fruit Beetle, Confused Flour Beetle, Sawtoothed Grain Beetle, Roaches, Flies, Mosquitoes and Gnats. Dispense this product as a fine mist in sprayers that produce a very fine aerosol spray. Use a dosage of 1 ounce per 1000 cubic feet of space. Leave room closed for at least ten minutes. Sweep up and destroy fallen insects. Do not apply more

than 1 time per day. *Use as a crack & crevice spray* to kill granary insects such as Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Sawtoothed Grain Beetles, Cadelles, Meal Moth Larvae and Adults, Cigarette Beetles, Drug Store Beetles and Granary Weevils and Roaches, Silverfish and Waterbugs, using no more than 57.8 ounces per 1000 square feet, direct the spray into all cracks and crevices, behind equipment, cupboards, obstructions or dark harborage areas, underneath sinks, behind pipes and in all places that harbor insects. This may be followed with a space spray using 1 ounce per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects. Do not apply more than 1 time per day.

**Commercial, Institutional Indoor Sites:** *Use as a space spray* to kill Accessible Stages of insects such as Indian Meal Moth, Dried Fruit Beetle, Confused Flour Beetle, Sawtoothed Grain Beetle, Roaches, Flies, Mosquitoes and Gnats. Dispense this product as a fine mist in sprayers that produce a very fine aerosol spray. Use a dosage of 1/2 to 2 ounces per 1000 cubic feet of space. Leave room closed for at least ten minutes. Sweep up and destroy fallen insects. *Use as a crack & crevice and spot application* to kill granary insects such as Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Sawtoothed Grain Beetles, Cadelles, Meal Moth Larvae and Adults, Cigarette Beetles, Drug Store Beetles and Granary Weevils and Roaches; Silverfish and Waterbugs, using no more than 57.8 ounces per 1000 square feet, direct the spray into all cracks and crevices, behind equipment, cupboards, obstructions or dark harborage areas, underneath sinks, behind pipes and in all places that harbor insects. This may be followed with a space spray using 1/2 to 1 ounce per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects. *Use as a general surface spray*, spray walls, floors and other surfaces using a coarse droplet spray at a rate not to exceed 11.5 ounces per 1000 square feet of area. This may be followed with a space spray using 1/2 to 1 ounce per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects.

**Residential Dwellings:** *Use as a space spray* to kill Accessible Stages of insects such as Indian Meal Moth, Dried Fruit Beetle, Confused Flour Beetle, Sawtoothed Grain Beetle, Roaches, Flies, Mosquitoes and Gnats. Dispense this product as a fine mist in sprayers that produce a very fine aerosol spray. Use a dosage of 1/2 to 1 ounce per 1000 cubic feet of space. Leave room closed for at least ten minutes. Sweep up and destroy fallen insects. *Use as a crack & crevice and spot application* to kill granary insects such as Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Sawtoothed Grain Beetles, Cadelles, Meal Moth Larvae and Adults, Cigarette Beetles, Drug Store Beetles and Granary Weevils and Roaches, Silverfish and Waterbugs, using no more than 57.8 ounces per 1000 square feet, direct the spray into all cracks and crevices, behind equipment, cupboards, obstructions or dark harborage areas, underneath sinks, behind pipes and in all places that harbor insects. This may be followed with a space spray using 1/2 to 1 ounce per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects. *Use as a general surface spray*, to kill listed insects. Spray walls, floors and other surfaces using a coarse droplet spray at a rate not to exceed 11.5 ounces per 1000 square feet of area. This may be followed with a space spray using 1/2 to 1 ounce per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects.

**Pet Premises (pets not present):** To kill listed insects, apply as a surface spray. Apply to floors, walls and other surfaces as a coarse, droplet spray. Use a dosage not to exceed 11.5 ounces per 1000 square feet of area. This may be followed by a space spray using a fine mist sprayer that produces a very fine mist. Use a dosage of 1.0 ounce per 1000 cubic feet of space.

**DILUTED:** The dilute 1 part Pyronox Dual 0.5 plus 5.6 parts of a suitable mineral oil (22.85 ounces of Pyronox Dual 0.5 plus 1 gallon of mineral oil). Apply as directed below.

**For Pests In Dried Fruit Products:** To kill Accessible Stages of insects such as Indian Meal Moth, Dried Fruit Beetle, Confused Flour Beetle, Sawtoothed Grain Beetle and Roaches, infesting dried fruit products in storage or being processed, close the room or warehouse and shut off all ventilating systems. Dispense this product as a fine mist in the air above trays or shelves of dried fruit. Use spraying device similar to the Microsol Machine or use fixed ceiling sprayers that produce a very fine aerosol spray. Do not apply to fruit directly. If overhead sprayers are used, be sure that the spray is discharged from a position of at least 6 feet over the top trays of fruit. Use a dosage not to exceed 6.5 ounces per 1000 cubic feet of room space.

**Stored Food Products:** For food stored in multiwall paper bags or cloth bags in warehouses, storage rooms and similar locations: To kill the adult and accessible forms of insect pests such as Rice Weevil, Yellow Meal Worm, Cadelles, Confused Flour Beetle, Sawtoothed Grain Beetle, Angoumois Groin Moth, Mediterranean Flour Moth and Indian Meal Moth, close room or warehouse and shut off all ventilating systems. Use a spraying device similar to the Microsol machine or used fixed ceiling sprayers that produce a very fine spray. Space sprays may be made to the surfaces of bags of stored food products. Use a dosage not to exceed 6.5 fluid ounces of this spray per 1000 cubic feet of room space. Direct application to food contact surfaces is prohibited.

**Indoor Agricultural Premises and Commercial Animal Housing and Equipment** (animals not present): To kill flies, mosquitoes and gnats, close room and shut off ventilating systems. Dispense this product as a fine mist in sprayers that produce a very fine aerosol spray. Use a dosage not to exceed 6.5 ounces per 1000 cubic feet of space. Leave room closed for at least ten minutes. Sweep up and destroy fallen insects. Do not apply more than 1 time per day.

**Indoor Food Handling and Processing Facilities:** *Use as a space spray* to kill Accessible Stages of insects such as Indian Meal Moth, Dried Fruit Beetle, Confused Flour Beetle, Sawtoothed Grain Beetle, Roaches, Flies, Mosquitoes and Gnats. Dispense this product as a fine mist in sprayers that produce a very fine aerosol spray. Use a dosage not to exceed 6.5 ounce per 1000 cubic feet of space. Leave room closed for at least ten minutes. Sweep up and destroy fallen insects. Do not apply more than 1 time per day. *Use as a crack & crevice spray* to kill granary insects such as Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Sawtoothed Grain Beetles, Cadelles, Meal Moth Larvae and Adults, Cigarette Beetles, Drug Store Beetles and Granary Weevils and Roaches, Silverfish and Waterbugs, apply 1 gallon per 1000 square feet, direct the spray into all cracks and crevices, behind equipment, cupboards, obstructions or dark harborage areas, underneath sinks, behind pipes and in all places that harbor insects. This may be followed with a space spray using up to 6.5 ounces per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects. Do not apply more than 1 time per day.

**Commercial, Institutional Indoor Sites:** *Use as a space spray* to kill Accessible Stages of insects such as Indian Meal Moth, Dried Fruit Beetle, Confused Flour Beetle, Sawtoothed Grain Beetle, Roaches, Flies, Mosquitoes and Gnats. Dispense this product as a fine mist in sprayers that produce a very fine aerosol spray. Use a dosage of 5 to 10 ounces per 1000 cubic feet of space. Leave room closed for at least ten minutes. Sweep up and destroy fallen insects. *Use as a crack & crevice and spot application* to kill granary insects such as Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Sawtoothed Grain Beetles, Cadelles, Meal Moth Larvae and Adults, Cigarette Beetles, Drug Store Beetles and Granary Weevils and Roaches, Silverfish and Waterbugs, apply 1 gallon per 1000 square feet, direct the spray into all cracks and crevices, behind equipment, cupboards, obstructions or dark harborage areas, underneath sinks, behind pipes and in all places that harbor insects. This may be followed with a space spray using 5 to 10 ounces per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects. *Use as a general surface spray,* spray walls, floors and other surfaces using a coarse droplet spray at a rate not to exceed ½ gallon per 1000 square feet of area. This may be followed with a space spray using 5 to 10 ounces per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects.

**Residential Dwellings:** *Use as a space spray* to kill Accessible Stages of insects such as Indian Meal Moth, Dried Fruit Beetle, Confused Flour Beetle, Sawtoothed Grain Beetle, Roaches, Flies, Mosquitoes and Gnats. Dispense this product as a fine mist in sprayers that produce a very fine aerosol spray. Use a dosage not to exceed 6.5 ounces per 1000 cubic feet of space. Leave room closed for at least ten minutes. Sweep up and destroy fallen insects. *Use as a crack & crevice and spot application* to kill granary insects such as Rice Weevils, Confused Flour Beetles, Rust Red Flour Beetles, Sawtoothed Grain Beetles, Cadelles, Meal Moth Larvae and Adults, Cigarette Beetles, Drug Store Beetles and Granary Weevils and Roaches, Silverfish and Waterbugs, apply 1 gallon per 1000 square feet, direct the spray into all cracks and crevices, behind equipment, cupboards, obstructions or dark harborage areas, underneath sinks, behind pipes and in all places that harbor insects. This may be followed with a space spray using no more than 6.5 ounces per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects. *Use as a general surface spray,* to kill listed insects. Spray walls, floors and other surfaces using a coarse droplet spray at a rate not to exceed ½ gallon per 1000 square feet of area. This may be followed with a space spray using no more than 6.5 ounces per 1000 cubic feet of space. Leave room closed for at least 10 minutes. Sweep up and destroy fallen insects.

**Pet Premises** (pets not present): To kill listed insects, apply as a surface spray. Apply to floors, walls and other surfaces as a coarse, droplet spray. Use a dosage not to exceed ½ gallon per 1000 square feet of area. This may be followed by a space spray using a fine mist sprayer that produces a very fine mist. Use a dosage not to exceed 6.5 ounces per 1000 cubic feet of space.

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Store this product in its original container in a dry, cool, secured area.

**Pesticide Disposal:** As a responsible environmental practice, where possible, it is recommended that all of the contents of the container be used, carefully following label directions and precautions. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with solvent used to dilute the product and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

For information on this pesticide product (including health concerns, medical emergencies or pesticide incidents, call the National Pesticide Telecommunications Network at 1-800-858-7578.

**CONDITIONS OF SALE:** Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitation of Liability before using this product. If the terms are not acceptable, return the unopened container at once. By using this product, user and buyer accept 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. Injury, 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 CTX-CENOL, INC. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer. **Disclaimer of Warranties:** There are no warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, which extend beyond the statements made on this label. No agent of CTX-CENOL, INC. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. CTX-CENOL, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product. **LIMITATION OF WARRANTIES:** To the extent consistent with applicable law, the exclusive remedy of the user whether in contract warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price, or at CTX-CENOL, INC.'s option, the replacement of the product.

**CTX-CENOL, INC.**  
1393 E. Highland Road  
Twinsburg, OH 44087