

67425-28

05-14-2009

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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Ms. Sharon M. Johnson  
Product Registration  
EcoSmart Technologies, Inc.  
3600 Mansell Road, Suite 150  
Alpharetta, GA 30022

MAY 14 2009

**SUBJECT:** Application for Pesticide Notification (PRN 98-10)  
Request Alternate Brand Name "EcoPCO EC-X Emulsifiable Concentrate  
Insecticide for Animal Health  
EPA Reg. No. 67425-28  
Application Dated April 17, 2009

Dear Registrant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 04/17/09 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

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United States  
**Environmental Protection Agency**  
 Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 67425-28	2. EPA Product Manager Richard Gebken	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) EcoPCO EC-X Emulsifiable Concentrate Insecticide	PM# 10	
5. Name and Address of Applicant (Include ZIP Code) EcoSmart Technologies, Inc. 3600 Mansell Road, Suite 150 Alpharetta, GA 30022 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. <u>NOTIFICATION</u> Product Name <u>MAY 14 2009</u>	

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation: Use additional page(s) if necessary. (For section I and Section II.)**

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

NOTIFICATION of Alternate Brand Name Per PR Notice 98-10: EcoPCO EC-X Emulsifiable Concentrate Insecticide For Animal Health

**Section - III**

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container	<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1.0 pint to 2.0 gallons		5. Location of Label Directions <input checked="" type="checkbox"/> on label	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued Stenciled			<input type="checkbox"/> Other _____		

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Sharon M. Johnston		Title Regulatory Consultant		Telephone No. (Include Area Code) (636) 942-2583	
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6. Date Application Received (Stamped)
2. Signature 		3. Title Regulatory Consultant			
4. Typed Name Sharon M. Johnston		5. Date April 17, 2009			

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**NOTIFICATION**

MAY 14 2009

**EcoPCO®EC•X**  
**Emulsifiable Concentrate Insecticide For Animal Health**

**(LOGO)™**

- Provides rapid knockdown and kill of listed insect and Arachnid pests. Kills only at the time of application. Pest must be directly contacted to be effective.
- For use indoors and outdoors
- For use in and around buildings, homes, offices, and other structures
- For use on Agricultural Crops, Greenhouses, and Nurseries
- May be applied to livestock and livestock housing facilities
- May be tank mixed with insect growth regulators
- Can be used in the food/feed areas of Federally-Inspected meat and poultry plants
- Unscented

**ACTIVE INGREDIENT:**

**Pyrethrins\*** **3.0%**

**OTHER INGREDIENTS\*\*:** **97.0%**

**100.0%**

\*A botanical insecticide

\*\*Contains Petroleum Distillate

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See Side/Back Panel for Additional Precautions

**EPA Reg. No. 67425-28**

**EPA Est. No.**

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<b>FIRST AID</b>	
<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 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<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 the poison control center or doctor.</li> <li>• Do not give <b>any</b> liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For additional information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), you may call 1-800-535-5053 (InfoTrac Chemical Response System).	
<b>NOTE TO PHYSICIAN</b>	
Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

### **PRECAUTIONARY STATEMENTS**

#### **Hazards to Humans & Domestic Animals**

##### **CAUTION**

Causes skin irritation. Harmful if swallowed. Do not get on skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves such as Barrier Laminate, Nitrile rubber, Neoprene rubber or Viton, selection Category E. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are listed below. Additional options can be obtained by following the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear: Long-sleeved shirt, long pants, shoes and socks, and Chemical-resistant gloves such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber, or Viton, Selection Category E.

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

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

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. When mixing and loading, wear a chemical-resistant apron.

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

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

**User Safety Recommendations:**

- Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Users 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.

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR, Part 170. The Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It also contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label and about personal protective equipment (PPE) and restricted-entry intervals. The requirements listed in the section "Agricultural Use Requirements" 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 12 hours.

PPE required for early entry to treated areas that is permitted under 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 Barrier Laminate, Nitrile Rubber, Neoprene Rubber or Viton
- Shoes plus socks

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.

**Non-Agricultural Use Requirements**

The requirements listed in the section "Non-Agricultural Use Requirements" apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR, Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter until sprays have dried or until vapors and mists have dispersed and the treated area has been thoroughly ventilated.

Wear protective clothing when using or handling this product to help avoid exposure to eyes and skin. Eye protection, gloves, a long-sleeved shirt, and long-pants are recommended.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide

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regulation.

### Physical or Chemical Hazards

**Flammable.** Keep away from heat and open flame. Do not use in or around electrical equipment due to the possibility of shock hazard.

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

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

### DIRECTIONS FOR USE

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

### GENERAL PRECAUTIONS & USE RESTRICTIONS:

- Apply this product only as specified on this label
- Do not contaminate food or feedstuffs.
- Do not apply this product in a way that will contact workers or other persons, either directly or through drift.
- Do not enter or allow others to enter until vapors, mists and aerosols have dispersed and the area has been thoroughly ventilated.
- Do not apply this product in a way that will contact adults, children or pets, either directly or through drift.
- Only protected handlers may be in the area during application.
- Do not remain in treated area. Exit area immediately and remain outside the treated area until vapors, mists and aerosols have dispersed.
- 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.
- Do not use in aircraft cabins except in accordance with PR Notice 96-3.
- Do not apply directly to or near water, storm drains or drainage ditches. Do not apply when windy. To prevent product run-off, do not water the treated area(s) or apply when heavy rain is expected. Rinse applicator over lawn or garden area only.
- Do not wet plants to the point of run-off or drip.
- For use in dairy barns or facilities: Close milk bulk tank lids to prevent contamination from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.
- For direction application to non-domestic animals/livestock: Do not apply more than 1 time per

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day.

- For use in food handling and processing facilities: Do not make space spray applications when facility is in operation. During space spray applications, cover or remove exposed food. During space spray applications, cover food processing surfaces or clean after treatment with a suitable detergent, rinse with potable water before use.
- For crops grown outdoor or in greenhouses in agricultural settings: Do not apply more than 10 times per season. Do not reapply within 3 days except under extreme pest pressure. In case of extreme pest pressure, do not reapply within 24 hours. Do not harvest until spray has dried. Do not apply to cotton within 14 days of seed harvest.
- For post-harvest application to vegetables, fruits, nuts and other commodities: Do not reapply within 7 days. Do not apply more than 10 times to sweet potatoes.
- For post-harvest applications to stored grains and seeds: Do not reapply within 30 days.
- Remove pets, birds and cover fish aquariums before application.

- **EcoPCO®EC•X** is a highly versatile insecticide concentrate for indoor or outdoor application as a surface, space or area spray. Kills only at the time of application. Pesticide must directly contact arthropod to be effective. **EcoPCO®EC•X** may be applied through mechanical, aerosol or ULV generators as well as thermal fogging equipment and conventional fogging or spraying equipment. **EcoPCO®EC•X** may be applied as a space, spot or crack and crevice treatment in food/feed areas of food/feed handling establishments, restaurants or other areas where food is commercially prepared or processed.

**EcoPCO®EC•X** may be also be used in non-food/feed areas including garbage rooms, lavatories, floor drains (to sewers), entries and vestibules, offices, locker rooms, machine rooms, boiler rooms, garages, mop closets and storage.

**EcoPCO®EC•X** may be diluted with water or oil and applied with conventional application equipment - compressed air sprayers, power sprayers, misters, mechanical aerosol generators (ULV or cold foggers) and thermal foggers (oil dilutions only.) When diluting with water, prepare only the amount needed for immediate use and agitate during use. Holding a water dilution for more than 24 hours is not recommended.

**USED AS A TANK MIX:** **EcoPCO®EC•X** may be tank mixed with other insecticides, Acaracides, fungicides, adjuvants and wetting agents. This application should conform to accepted use precautions and directions for both products. Tank mix applications must be made in accordance with the more restrictive of label limitations and precautions. No label application rates may be exceeded. This product cannot be mixed with any product with label prohibitions against such mixing.

Prior to tank-mixing, a small jar compatibility test should be conducted using the proper proportions of chemicals and water to ensure the physical compatibility of the mixture.

**EcoPCO®EC•X** is for use in and around buildings and structures as well as modes of transport.

**INDOOR USE AREAS:** **EcoPCO®EC•X** may be applied in apartment buildings, bakeries, beverage plants, bottling facilities, breweries, cafeterias, candy plants, canneries, cereal processing and manufacturing plants, dairies and dairy product processing plants, flour mills, food processing plants, frozen food plants, grain elevators, grain mills, granaries, homes, hospitals, hotels, houses, industrial buildings, kennels, kitchens, laboratories, manufacturing facilities, mausoleums, meat processing and packaging plants, meat and vegetable canneries, motels, nursing homes, office buildings, restaurants, schools, spice plants, stores, supermarkets, warehouses, wineries and similar structures.

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**OUTDOOR AREAS:** EcoPCO®EC•X may be applied around the exterior of structures and outdoor areas of apartment buildings, bakeries, beverage plants, bottling facilities, breweries, candy plants, canneries, cereal processing and manufacturing plants, dairies and dairy product processing plants, drive-in restaurants, drive-in theaters, flour mills, food processing plants, frozen food plants, golf courses, grain elevators, grain mills, granaries, homes, hospitals, hotels, houses, industrial buildings, kennels, kitchens, laboratories, manufacturing facilities, mausoleums, meat processing and packaging plants, meat and vegetable canneries, motels, nursing homes, office buildings, parks, playgrounds, recreational areas, restaurants, schools, spice plants, stores, supermarkets, universities, urban areas, warehouses, wineries, zoos, and similar structures.

**MODES OF TRANSPORT:** EcoPCO®EC•X may be applied in aircraft (do not use in aircraft cabins), buses, trucks, trailers, rail cars and marine vessels.

**NOTE:** For sensitive indoor/outdoor surfaces (vinyl, plastic, fabric, wood floors, carpet, etc.) test on a small non-visible area first before spraying. This includes vinyl siding, outdoor furniture, storm doors, carpeting, windows, etc. It is possible that EcoPCO®EC•X may mar some sensitive surfaces. If spray gets on any sensitive surface that is listed, simply rinse with water and wipe off excess with clean cloth.

### **INDOOR USE AS A SURFACE SPRAY**

**PESTS :** To kill the following crawling insects: ants (excluding fire, harvester, carpenter and Pharaoh ants), cockroaches, centipedes, scorpions, spiders (excluding brown recluse spiders), mites, earwigs, drywood termites, powderpost beetles, carpet beetles, crickets, fleas, brown dog ticks, clothes moths, firebrats and silverfish. To kill the following accessible, exposed stages of stored product pests: cadelles, cigarette beetles, dark mealworms, dried fruit beetles, drugstore beetles, confused flour beetles, grain mites, red flour beetles, rice weevils, saw-toothed grain beetles, spider beetles, yellow mealworms in apartments, homes, restaurants, food processing plants, industrial installations and warehouses, dilute at the rate of up to 8 fl. oz. of EcoPCO®EC•X per gallon of water and apply at the rate of 1 gallon to 750 square feet. Thoroughly spray the surfaces where these insects are usually found including walls, baseboards, moldings, doors, cabinets, shelves, sinks and pipes with special attention to cracks and crevices, niches, dark corners, drains and other harborage sites.

**In Federally-Inspected Meat & Poultry Plants:** To kill accessible, exposed stages of the following crawling insects: ants (excluding fire, harvester, carpenter and Pharaoh ants), cockroaches, cadelles, cigarette beetles, confused flour beetles, dark mealworms, dried fruit beetles, drugstore beetles, grain mites, red flour beetles, rice weevils, saw-toothed grain beetles, spider beetles, yellow mealworms, dilute 4 fl. oz. of EcoPCO®EC•X per gallon of water and apply at the rate of 1 gallon to 750 square feet. Thoroughly spray the areas where these insects are usually found with special attention to cracks and crevices, niches, dark corners, drains and other harborage sites.

**FLEA AND BROWN DOG TICKS IN BUILDINGS:** Dilute 4 to 8 fl. oz. of EcoPCO®EC•X per gallon of water and apply the spray thoroughly to infested areas (pet beds and resting quarters, nearby cracks and crevices, rugs and floor coverings including under their edges, between and under the cushions of upholstered furniture and other areas where these pests may be present). Entire rugs and furniture should be treated at the rate of 1 gallon of dilute spray per 750 square feet of surface.

**In combination with Insect Growth Regulators:** To provide quick knockdown of adult fleas, tank mix 4 to 8 fl. oz. of EcoPCO®EC•X with the appropriate amount of companion insecticide per finished gallon and apply per the Directions for Use on the companion insecticide label.

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Remove old pet bedding and replace with fresh bedding after treatment of pet areas. Pets should also be treated with an "on animal" flea treatment product before they are allowed to enter the treated area.

**PANTRY PESTS:** To kill exposed adult and immature stages of the following Stored Product Insects: almond moths, Angoumois grain moths, cadelles, cigarette beetles, confused flour beetles, drugstore beetles, flat grain beetles, granary weevils, Indian meal moths, lesser grain borers, maize weevils, Mediterranean flour moths, merchant grain beetles, red flour beetles, rice weevils, rusty grain beetles, saw-toothed grain beetles and squarenecked grain beetles, dilute 4 fl. oz. of **EcoPCO®EC•X** per gallon of water and apply to cupboards, shelves and storage areas.

**PREMISE PESTS:** To kill powder post beetles dilute 4 to 8 fl. oz. of **EcoPCO®EC•X** per gallon of water and apply as a surface spray at the rate of 1 gallon per 750 square feet.

**CARPET BEETLES:** To kill carpet beetles (black, furniture and varied), dilute 8 fl. oz. of **EcoPCO®EC•X** per gallon of water and apply to the entire carpet at the rate of 1 gallon per 750 square feet. Make localized applications under the edge of carpets, floor coverings and furniture as well as along baseboards, in closets and to infested areas of shelving.

**WEBBING CLOTHES MOTHS:** To kill clothes moths, remove infested articles from storage, brush them thoroughly and air-dry them in sunlight for several hours. Dilute 4 fl. oz. of **EcoPCO®EC•X** per gallon of water and apply as a crack and crevice treatment to empty chests, bureaus and storage sites. After airing, infested articles may be lightly treated with the spray solution (keep the nozzles at least 3 feet from the fabric to avoid staining). Dry clean treated clothes before wearing.

**FOR INDOOR APPLICATIONS:** Remove pets (including birds) from the area being treated and cover fish aquaria before spraying.

**INDOOR USE:** To kill crawling and flying insects in industrial installations and warehouses, **EcoPCO®EC•X** may be diluted with water and applied as a space spray. For best results, close doors and windows before spraying and keep them closed for 30 minutes after treatment. The applicator must vacate the area after treatment and ventilate before reoccupying. Where oil residues are not undesirable, **EcoPCO®EC•X** can be diluted in deodorized base oil instead of water and applied with mechanical, thermal or ULV applicators.

**CRAWLING AND FLYING INSECTS:** To kill accessible, exposed stages of the following CRAWLING INSECTS: ants (excluding fire, harvester, carpenter and Pharaoh ants), cockroaches, centipedes, firebrats, silverfish, scorpions, spiders (excluding brown recluse spiders), and stored product pests (cadelles, cigarette beetles, confused flour beetles, dark mealworms, dried fruit beetles, drugstore beetles, grain mites, red flour beetles, rice weevils, saw-toothed grain beetles, spider beetles, yellow mealworms) and FLYING INSECTS, specifically, Angoumois grain moths, cheese skippers, fruit flies, fungus gnats, gnats, Indian meal moths, Mediterranean flour moths, phorid flies, small flying moths and tobacco moths, dilute 25 fl. oz. of **EcoPCO®EC•X** per gallon of water or oil and apply at the rate of 1 oz. of finished product per 1,000 cubic feet of space. Direct the spray towards the ceiling and upper corners of the area and behind obstructions. Vacate the treated area and keep the area closed for at least 30 minutes after treatment. Thoroughly ventilate treated area before reoccupying.

**FLYING INSECTS:** To kill the following insects: Angoumois grain moths, cheese skippers, fungus gnats, gnats, Indian meal moths, Mediterranean flour moths, small flying moths and tobacco moths dilute 5 fl. oz. of **EcoPCO®EC•X** per gallon of water or oil and apply at the rate of 1 oz. of finished

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product per 1000 cubic feet of space. Direct the spray toward the ceilings and upper corners of the area and behind obstructions. Vacate the treated area and keep the area closed for at least 30 minutes after treatment. Thoroughly ventilate treated area before reoccupying.

### OUTDOOR USE

Not for use in outdoor residential misting systems.

**PERIMETER TREATMENTS:** To kill ants (excluding fire, harvester, carpenter and Pharaoh ants), cockroaches, centipedes, crickets, firebrats, fleas, ground beetles, millipedes, pillbugs (sowbugs), silverfish, spiders (excluding brown recluse spiders) and brown dog ticks, dilute 4 to 8 fl. oz. of **EcoPCO®EC•X** per gallon of water and apply at the rate of 1 gallon per 750 square feet to a band of soil and vegetation 6 to 10 feet wide around and adjacent to buildings. Treat the building foundation to a height of 2 to 3 feet at the rate of 1 gallon per 750 square feet. Additionally, apply to potential entry areas, specifically, eaves, windows, doorways, porches, porch lights, and utility boxes.

**BROWN DOG TICKS:** To kill brown dog ticks around residential areas, rural fields, woods, lots, roadsides, pathways and coastal vegetation areas, dilute 8 fl. oz. of **EcoPCO®EC•X** per gallon of water and apply with a mist blower (or other similar equipment) calibrated to deliver 3 gallons per acre. Apply during the peak of infestation and repeat as necessary. Thorough applications should be made to the vegetation upon which the ticks rest.

**FLEAS:** To kill fleas around residential areas, dog houses, kennels, paths, patios and under plants, shrubs, trees or other shaded, moist areas where pets may rest, dilute 8 fl. oz. of **EcoPCO®EC•X** per gallon of water and apply at the rate of 1 gallon per 750 square feet.

**USE ON ORNAMENTALS, TURF AND GRASS:** African violet, ageratum, aster, azalea, begonia, calceolaria, calendula, calla, camellia, carnation, ceanothus, cineraria, chrysanthemum, coleus, cyclamen, cypress, daffodil, dahlia, delphinium, dogwood, elm, eucalyptus, fern, ficus, foliage plants, fuchsia, gardenia, geranium, gladiolus, gloxinia, gypsophila, holly, hyacinth, hydrangea, iris, lily, maidenhair fern, marigold, narcissus, palm, pansy, peony, pelargonium, petunia, philodendron, phlox, pine, pyracantha, rhododendron, roses, rubber plant, snapdragon, sweet pea, tulips, wandering Jew, Yew, Zinnia and Andromeda, arborvitae, ash, beach, birch, boxwood, cotoneaster, crabapple, euonymus, fir, firethorn, forsythia, hawthorn, hemlock, hickory, honey locust, horse chestnut, juniper, larch, laurel, lilac, linden, mimosa, myrtle, oak, pine, privet, tulip tree, viburnum, willow.

To kill ants (excluding fire, harvester, carpenter and Pharaoh ants), armyworms, chinch bugs, crickets, earwigs, fleas, lygus, Japanese beetles (adults) and brown dog ticks, dilute and apply per the instructions in the following table:

Treatment Area (Sq. Feet)	Fluid Ounces of EcoPCO®EC•X	Suggested Volume of Water <sup>a</sup> (Gal.)
1000	0.5 to 1.0	2.5 to 5.0
5000	2.5 to 5.0	12.5 to 25.0
20000	10.0 to 20.0	50.0 to 100.0
43560 <sup>b</sup>	24.0 to 48.0	110.0 to 220.0

<sup>a</sup> Dilute with enough water to obtain thorough coverage  
<sup>b</sup> 43560 square feet = 1 acre

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Do not apply more than 1 time per day.

## USE ON AGRICULTURAL CROPS

**To Kill the Following Insects:** Ants (excluding fire, harvester, carpenter and Pharaoh ants), aphids, apple maggots, armyworms, artichoke plume moths, asparagus beetles, beet armyworms, bagworms, bean beetles, beetles, blister flies, blow flies, boll weevils, cabbage loopers, cankerworms, carrot weevils, caterpillars, clover mites, clover weevils, cockroaches, codling moths, Colorado potato beetles, crane flies, crickets, cross-striped cabbageworms, cucumber beetles, darkling beetles (lesser meal worm), earwigs, diamondback larvae, eastern tent caterpillars, elm leaf beetles, European corn borers, European pine tip moths, face flies, fall webworms, firebrats, fire worms, flea beetles, forest tent caterpillars, fungus gnats, fruit flies, fruit tree leaf rollers, glassy winged sharpshooters, grape leafhoppers, grape leaf skeletonizers, green fruit worms, green peach aphids, greenhouse thrips, gypsy moths (adults and larvae), harlequin bugs, horn flies, hornworms, imported cabbageworms, Indian meal moths, Japanese beetles, katydids, lace bugs, leafhoppers, leaf rollers, leaf tiers, lice, loopers, lygus, mealy bugs, Mediterranean flour moths, Mexican bean beetles, midges, millipedes, mushroom flies, navel orange worms, onion maggots, pear psylla, potato leafhoppers, psyllids, rice weevils, saw-toothed grain beetles, scales, silverfish, skippers, sowbugs, spiders (excluding brown recluse spiders), stink bugs, tarnished plant bugs, thrips, tomato hornworms, vinegar flies, webworms, whiteflies.

**IMPORTANT NOTE:** Plant safety is an important consideration when using insecticides in a greenhouse. However, it is not possible to evaluate the phytotoxicity of **EcoPCO®EC•X** on numerous plant varieties that may react differently to insecticides in different growth stages or under varying environmental conditions. Before making widespread applications of **EcoPCO®EC•X**, or tank mix combinations, treat a limited number of plants and observe for phytotoxicity over a 10-day period.

## GROWING CROPS (OUTDOORS AND IN GREENHOUSES):

**USED ALONE:** Apply **EcoPCO®EC•X** at 7.5 to 30 oz. per acre by ground in sufficient water for thorough coverage. This product may be applied by air at the rate of 7.5 to 30 oz. per acre in a minimum of 5 gallons of water. Mix only enough for immediate use. Spraying should begin when the insects first appear. Use the higher rates for heavy infestations. Do not wait until the plants are heavily infested.

- Do not apply more than 10 times per season.
- Do not reapply within 3 days except under extreme pest pressure.
- In case of extreme pest pressure, do not reapply within 24 hours.
- Do not harvest until spray has dried.

**It is recommended that the final spray mix be buffered to a pH of 5.5 – 7.0.**

To avoid possible harm to honey bees, it is advisable to apply in the early morning or late evening hours.

**USED AS A TANK MIX:** **EcoPCO®EC•X** may be tank mixed with other insecticides, Acaracides, fungicides, adjuvants and wetting agents. This application should conform to accepted use precautions and directions for both products. Tank mix applications must be made in accordance with

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the more restrictive of label limitations and precautions. No label application rates may be exceeded. This product cannot be mixed with any product with label prohibitions against such mixing.

Prior to tank-mixing, a compatibility test should be conducted using the proper proportions of products and water to ensure the physical compatibility of the mixture.

**ROOT AND TUBER VEGETABLES:** Arracacha, arrowroot, purple arrowroot, Japanese artichoke, Jerusalem artichoke, garden beets, sugar beets, edible burdock, edible canna, carrots, cassava (bitter or sweet), celeriac (celery root), chayote (root), chervil (turnip rooted), chicory, chufa, dasheen, ginger, ginseng, horseradish, leren, parsley (turnip rooted), parsnip, potato, radish, Japanese radish (daikon), rutabaga, salsify, black salsify, Spanish salsify, sweet potato, tanier, turmeric, turnip, yam (true), yam bean.

**LEAVES OF ROOT AND TUBER VEGETABLES:** Garden beet, sugar beet, edible burdock, carrot, cassava (bitter or sweet), celeriac (celery root) chervil (turnip rooted), chicory, dasheen (taro), parsnip, radish, Japanese radish (daikon), rutabaga, black salsify, sweet potato, tanier, turnip, yam (true).

**BULB VEGETABLES:** Garlic, leek, onion (bulb and green), shallot.

**LEAFY VEGETABLES:** Amaranth (leafy amaranth, Chinese spinach, tampala), arugula, cardoon, celery, Chinese celery, celtuce, chervil cilantro, corn salad, chrysanthemum (edible-leaved), chrysanthemum (gardland), cress (garden, water), upland cress (yellow rocket, winter cress), dandelion, dock (sorrel), endive (escarole), fennel (Florence), lettuce (head and leafy), orach, parsley, purslane (garden and winter), radicchio, rhubarb, spinach, fine spinach (Malabar, Ceylon), spinach (New Zealand), Swiss chard.

**BRASSICO (COLE) LEAFY VEGETABLES:** Broccoli, Chinese broccoli (gai lon), broccoli tab (rapini), Brussels sprouts, cabbage, Chinese cabbage (bok choy), Chinese cabbage (Napa), Chinese mustard cabbage (gai choy), cauliflower, cavalo broccolo, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens.

**LEGUME VEGETABLES (SUCCULENT OR DRIED):** Adzuki, beans, field beans, kidney beans, lima beans, moth beans, mung beans, navy beans, pinto beans, rice beans, runner beans, snap beans, tepary beans, urd beans, wax beans, asparagus beans, black-eyed peas, catjang, Chinese long beans, cowpeas, chowder peas, southern peas, yard-long beans, broad beans (fava beans), chick peas (garbanzo beans), guar, jack bean (sword bean), lablab bean (hyacinth bean), lentils, peas (garden peas, field peas, sugar snap peas, English pea, snow pea), pigeon peas, soybeans, sweet lupin beans, white lupin beans, white sweet lupin, sword bean.

**FOLIAGE OF LEGUME VEGETABLES:** Plant part of any legume vegetable included in the legume vegetable group that will be used as animal feed including any variety of beans, field peas, and soybeans.

**FRUITING VEGETABLES:** Eggplant, ground cherry, okra, pepinos, pepper (bell pepper, chili pepper, cooking peppers, pimentos, sweet peppers), tomatillo, tomatoes.

**CUCURBIT VEGETABLES:** Balsam apple, balsam pear (bitter melon), chayote (fruit), Chinese wax gourd (Chinese preserving melon), Chinese cucumber, citron melon, cucumber, gherkin, edible gourds, melons (including hybrids, cantaloupe, casaba, Crenshaw, golden pershaw melon, noneydeu

melons, honey balls, mango melon, muskmelon, Persian melon, pineapple melon, Santa Claus melon, snake melon), pumpkin, squash (summer and winter), watermelon (including hybrids).

**CITRUS FRUITS:** Calamondin, citrus citron, citrus hybrids, grapefruit, kumquats, lemons, limes, mandarin (tangerine), orange (sweet and sour), pummelo, Satsuma mandarin, (citrus spp. Includes chironja, tangelos, tangors).

**POME FRUITS:** Apple, crabapple, loquat, pear, mayhaw, Oriental pear, quince.

**STONE FRUITS:** Apricot, cherry (sweet and sour), nectarine, peach, plum, prune, Chickasaw plum, Damson plum, Japanese plum, plumcot.

**SMALL FRUIT AND BERRIES:** Blackberry, blueberry, cranberry, currant, dewberry, elderberry, gooseberry, grape, huckleberry, loganberry, olallie berry, raspberry (black and red), strawberry, youngberry.

**TREE NUTS:** Almond, beech nut, Brazil nut, butternut, cashew, chestnut, chinquapin, Filbert (hazelnut), hickory nut, macadamia nut (bush nut), pecan, pistachio, walnut, black and English (Persian).

**ORIENTAL VEGETABLES:** Acerola, Atemoya, Balsam Pear (bitter melon), carambola, Japanese artichoke, Chinese broccoli (gai lan), Chinese cabbage (bok choy, napa), Chinese mustard cabbage (gai choy), dasheen, ginger, ginseng, Chinese long beans, mung beans, citron melon, Japanese radish (daikon), Chinese spinach, Chinese wax gourd, cilantro, citron melon, rambutan, water chestnut.

**SUBTROPICAL FRUITS:** Avocado, banana, carob, Barbados, cherry, cherimoya, dates, durian (jackfruit), feijoa, figs, guava, kiwifruit, lychee, mango, papaya, passion fruit, persimmon, pineapple, pomegranate.

**CEREAL GRAINS:** Barley, buckwheat, corn (sweet and field), millet, proso, oats, pearl millet, popcorn, rice, rye, sorghum (milo), teosine, triticale, wheat, wild rice.

**FORAGE, FODDER AND STRAW OF CEREAL GRAINS:** Barley, buckwheat, corn (sweet and field), millet, proso, oats, pearl millet, popcorn, rice, rye, sorghum (milo), teosine, triticale, wheat, wild rice.

**GRASSES FOR SEED, FORAGE, FODDER AND HAY:** Any grass (gramineal family, green or cured, except sugarcane and those listed in the cereal grains group), that will be fed to or grazed by livestock, all pasture and range grasses and grasses grown for hay and silage, Bermuda grass, bluegrass, bromegrass, fescue.

**NON-GRASS ANIMAL FEEDS:** Alfalfa, velvet bean, clover, kudzu, lespedeza, lupine, sainfoin, trefoil, crown vetch, milk vetch.

**HERBS AND SPICES:** Allspice, angelica, anise (anise seed), anise (star), annatto (seed), balm (lemon balm), basil, borage, burnet, chamomile, caper buds, caraway, caraway (black), cardamom, cassia bark, cassia buds, catnip, celery seed, chervil (dried), chicory, chive, chive (Chinese), cinnamon, clary, clove buds, coriander (cilantro or Chinese parsley) (leaf), coriander (cilantro) (seed), costmary, cilantro (leaf), cilantro (seed), cumin, curry (leaf), dill (dillweed), dill (seed), fennel (common), fennel [Florence] (seed), fenugreek, grains of paradise, horehound, hyssop, juniper berry,

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lavender, lemongrass, lovage (leaf), lovage (seed), mace, marigold, marjoram (includes sweet or annual marjoram, wild marjoram or oregano and pot marjoram), mustard (seed), nasturtium, nutmeg, oregano, mint, paprika, parsley (dried), pennyroyal, pepper (black), pepper (white), rosemary, rue, saffron, sage, savory (summer and winter), sweet bay (bay leaf), tansy, tarragon, thyme, vanilla, wintergreen, wormwood.

**ADDITIONAL CROPS:** Artichoke, asparagus, avocado, coffee, cotton, hops, jojoba, mushroom, okra, olives, peanuts, pineapple, rice, safflowers, sesame, sugar cane, sunflower, tea.

**TO KILL ANTS (excluding fire, harvester, carpenter and Pharaoh ants) ON ORCHARD**

**FLOORS:** Apply **EcoPCO®EC•X** as a broadcast spray to the entire orchard floor using ground spray equipment at 2.5 to 8.5 fl. oz. per acre in 25 or more gallons of water. For best results use the high rate for heavy infestations and the lower rate for light infestations.

Do not apply where weed growth or other obstructions would impede uniform coverage of the orchard floor. Mow or chemically control weeds before the application. Foliar applications of **EcoPCO®EC•X** may be made in addition to the orchard floor treatment.

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**USE ON GREENHOUSE ORNAMENTAL, FLOWER AND FOLIAGE PLANTS:**

**USED ALONE:** Combine 7.5 oz. to 15 oz. with 30 gallons of water for applications with conventional hydraulic sprayers or 0.5 to 1 fl. oz. per gallon of water for applications with compressed sprayers. Do not apply more than 1 time per day.

**FOR USE OUTDOORS ON TREES, SHRUBS, FLOWERS AND FOLIAGE PLANTS:**

**USED ALONE:** Combine 2 to 3.5 pints of **EcoPCO®EC•X** with 100 gallons of water for applications with conventional hydraulic and air blast sprayers or 2 to 3.5 pints of **EcoPCO®EC•X** with 10 gallons of water for applications with low volume mist blowers or 0.5 to 1 fl. oz. per gallon water for applications with compressed air sprayers.

**FOR USE AROUND THE EXTERIOR OF HOMES AND OTHER BUILDINGS:** To kill listed flying and crawling insects on turf, ornamental plants, gardens, landscaping, foundation walls and perimeters mix 0.5 to 1 fl. oz. of **EcoPCO®EC•X** per gallon of water for applications with compressed air sprayers or pump driven sprayers.

**USE INDOORS ON TREES, SHRUBS, FLOWERS AND FOLIAGE PLANTS:**

**USED ALONE:** Combine 2 to 3.5 pints of **EcoPCO®EC•X** with 100 gallons of water for applications with conventional hydraulic sprayers or 0.5 to 1 fl. oz. of **EcoPCO®EC•X** per gallon of water for applications with compressed air sprayers.

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**USE WITH HYDROPONICALLY GROWN VEGETABLES AND ORNAMENTALS AS A WATER SYSTEM TREATMENT:** To kill aquatic dipter larvae, apply **EcoPCO®EC•X** to the water at the rates outlined in the following table:

<b>Pyrethrins Concentration</b>	<b>ml. of EcoPCO®EC•X</b>	<b>Gallons of water</b>
0.1 ppm	134	10,000
0.01 ppm	13.4	10,000
0.001 ppm	1.3	10,000

**FOR USE AS A LIVESTOCK AND POULTRY SPRAY:** To kill and repel horn flies and gnats, dilute **EcoPCO®EC•X** at the rate of 2.5 to 5 fl. oz. per gallon of water and apply to wet the hair thoroughly with particular attention to topline, underline, flanks, withers and other infested areas. Repeat treatment at intervals of 5 to 12 days for small insect populations or as needed when horn flies are emerging in large numbers. Do not apply more than 1 time per day.

- 1) To kill and repel face flies, dilute **EcoPCO®EC•X** at the rate of 4.5 fl. oz. per gallon of water and apply using spray which produces large wetting droplets. Apply to the face of the animal in the morning before releasing to pasture. Apply sufficiently to wet the face but not more than 0.5 fl. oz. of diluted solution per animal. Do not apply more than 1 time per day.
- 2) To effectively kill biting and sucking lice on cattle, horses, sheep, goats and hogs, dilute **EcoPCO®EC•X** at the rate of 1 pint per 16 gallons of water (1 fl. oz. per 1 gallon) and spray to thoroughly wet the hair of the animal including the head and brush of the tail. Repeat treatment in 10 days to kill newly hatched lice.
- 3) To kill poultry lice, using an **EcoPCO®EC•X** dilution of 4.5 to 7 fl. oz. of concentrate per gallon of water spray roosts, walls and nests or cages thoroughly. It is not necessary to remove poultry from the housing unit during treatment. This should be followed by spraying over the birds with a fine mist. Do not apply more than 1 time per day.
- 4) To kill mites on poultry and in poultry houses, dilute **EcoPCO®EC•X** at the rate of 4.5 to 7 fl. oz. per gallon of water and spray crevices of roost poles, cracks in walls and cracks in nests where the mites hide. This should be followed by spraying over the birds with a fine mist. Do not apply more than 1 time per day.
- 5) To kill sheep "tick" or Ked, dilute **EcoPCO®EC•X** at the rate of 2.5 to 5 fl. oz. per 4 gallons of water and thoroughly wet all portions of the body by dipping or by spraying with sufficient pressure and with a nozzle adjustment to give penetration of the wool. Treat at a rate sufficient to wet the animal. Do not apply more than 1 time per day.
- 6) To kill fleas and brown dog ticks on livestock and to obtain protection against reinfestation, dilute **EcoPCO®EC•X** at the rate of 4.5 fl. oz. per gallon of water and wet the animal by dipping or spraying. This product may also be used for livestock/pet quarters. Do not spray pets. For best results against fleas and brown dog ticks on dogs and cats the kennels and/or animal quarters and bedding should be treated. Remove and destroy pet's old bedding. To reduce infestation, thoroughly spray the animal's bedding and sleeping quarters. Also spray the entire inside surface of doghouses. Put fresh bedding in pet's quarters after spray has dried. Also treat dogs and cats with a registered flea and tick control product before allowing them to reenter treated area.

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**FOR USE IN BARNS, DAIRIES, MILKING PARLORS, MILKING ROOMS AND POULTRY**

**HOUSES:** To kill the following insects: fruit flies, gnats, phorid flies, wasps, hornets and small flying moths, dilute **EcoPCO®EC•X** at the rate of 4.5 fl. oz. per gallon of water. Apply as a fog or fine mist (at approximately 2 ounces per finished mix per 1,000 cubic feet of space), directing the nozzle for maximum coverage and above livestock and poultry toward the ceiling and upper corners of the area being treated. For best results, close doors and windows before spraying and keep them closed for 10 to 15 minutes. Do not apply more than 1 time per day.

To kill adult darkling beetle (lesser meal worm) in poultry houses, dilute 0.5 to 1.5 fl. oz. of **EcoPCO®EC•X** per gallon of water. Using a power or proportioner-type sprayer, apply a uniform spray until wet at pressures of 80 to 100 pounds per square inch to surfaces (interior walls, roosting posts, structural support pillars and other surfaces where adult beetles are observed). One gallon of spray mixture covers 250 to 500 square feet. Do not contaminate food/feed or water. For maximum effectiveness, treatments should coincide with each grow out or sanitation procedure. Indoor effectiveness can be enhanced by making perimeter treatments around the outside of buildings. To prevent immigrating adult beetles, apply a uniform band of spray 2 feet up and 1 to 4 feet out from the foundation.

For maximum effectiveness, treatments should coincide with poultry house clean out and litter replacement as this activity will tend to flush beetles to vertical surfaces where they will be exposed to the spray.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or 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 (sand, sawdust, earth, fuller's earth, etc). Dispose of with chemical waste.

**Container Disposal:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (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 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, then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

**Question or Comments:** Call 1-888-326-7233 weekdays, 9:00 a.m. to 5:00 p.m. EST.

**Chemical Safety Information:** Call 1-800-535-5053 anytime (InfoTrac Chemical Response System)

**Warranty & Disclaimer**

**Limitation of Liability:** To the extent consistent with applicable law, EcoSMART Technologies, Inc. makes no warranties of merchantability, or of fitness for a particular purpose, nor any other express or implied warranty except as stated above.

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U.S. Patent No. 6,004,569  
U.S. and Foreign Pat. Pending  
Item No.xxxxxxxx Rev. xx.xx.2008

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**NOTIFICATION**

**MAY 14 2009**