



PH 18 11688-5  
FILE 10/18

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

FEB 10 1994

KAREN E. WARKENTIEN  
W.R. GRACE & COMPANY - CONN.  
7379 RT 32  
COLUMBIA, MD. 21044

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 9/21/93 In Response to PR Notice 93-7  
EPA Reg. No. 11688-5  
MARGOSAN-O CONCENTRATE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

**WHAT THIS ACCEPTANCE MEANS:**

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

**WHAT YOU NEED TO DO NEXT:**

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that  
contains at least 50% recycled fiber

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Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs (7505C)  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief  
Registration Support Branch  
Registration Division (7505W)

Attachment

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division

Karen E Warkentien  
W.R. GRACE & CO - CONN  
7379 RT 32  
COLUMBIA MD 21044

Comment for: EPA Reg Nr.11688-5  
MARGOSAN-O CONCENTRATE

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

User Safety Recommendations must either be placed in a box or printed on the label in a contrasting color from surrounding text.

The Agricultural Use Requirements section must be located in a clearly separate box on the product labeling -- with lines or other graphic indicators (such as contrasting color) to separate the section from the surrounding text.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

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FEB 10 1994

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

11688-5

Margosan-O® Label Revisions per WPS

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# MARGOSAN-O®

## BOTANICAL INSECTICIDE CONCENTRATE

For effective management of whiteflies, thrips, mealybugs, leafminers, loopers, caterpillars, beet armyworms, aphids, ants, flies, cockroaches, fleas, weevils, psyllids, webworms, hornworms, spruce budworms, pine sawflies, gypsy moths, crane flies, leafhoppers, fruit flies, elm leaf beetles, bagworms, tent caterpillars, grasshoppers, mosquitos, field crickets, mole crickets, white grubs, sod webworms, fall armyworms, chinch bugs, hyperodes weevils, spider mites, diamondback moths, San Jose scale, onion maggots, imported cabbage worms, melonworms, pickleworms, rindworms, squash vine borers, squash bugs, fruitworms, tomato pinworms, Mexican bean beetles, bean leaf beetles, artichoke plume moths, potato flea beetles, leafrollers, leaffolders, grapeleaf skeletonizers, peach twig borers, filbertworms, shuckworms, phylloxera, spittlebugs, girdlers, calico scale, frosted scale, Colorado potato beetles, bollworms, cotton leafperforators, planthoppers, and billbugs on a variety of growing crops and raw agricultural commodities in the field, and on ornamentals, trees, and shrubs in and around greenhouses, commercial nurseries, interiorscapes, and homes.

### ACTIVE INGREDIENT:

Azadirachtin .....	0.25%
INERT INGREDIENTS .....	99.75%
TOTAL	100.00%

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

Manufactured By: W. R. Grace & Co.-Conn.  
7379 Route 32  
Columbia, MD 21044

EPA Reg. No. 11688-5

Net Contents: \_\_\_\_\_

EPA Est. No. \_\_\_\_\_

See Back Panel for Additional Precautionary Statements

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**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION:** Harmful if swallowed. Avoid contact with skin, eyes, or clothing. Avoid contamination of feed and foodstuffs. Avoid breathing spray mist. In case of eye contact, flush eyes with plenty of water. If on skin, wash with soap and water. ~~Wash contaminated clothes before reuse.~~ If irritation persists, get medical attention.

**Personal Protective Equipment:**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selection chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinylchloride (PVC) or Viton.
- Shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**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:**

This product may be hazardous to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or disposal of water.

**Physical and Chemical Hazards:**

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

**BEST AVAILABLE COPY**

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### STORAGE AND DISPOSAL

**Storage:** Keep in original container. Store in a cool, dry place, away from direct sunlight, feed or foodstuffs. Keep container tightly sealed when not in use. Do not store below 50°F (10°C) or above 95°F (55°C).

**Disposal:** Rinsewater and unused diluted pesticide may be disposed of on-site or in an approved waste disposal facility. Do not reuse empty container. Triple rinse empty containers and offer for recycling or puncture and dispose of in a sanitary landfill or by incineration, if allowed by state and local authorities. If burned, stay out of smoke.

### 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 12 hours.

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 barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinylchloride (PVC) or Viton.
- Shoes plus socks.

**BEST AVAILABLE COPY**

**General**

- For use to control whiteflies, thrips, mealybugs, leafminers, loopers, caterpillars, beet armyworms, and aphids on bedding plants, potted plants, foliage plants, ornamentals, trees, and shrubs in and around greenhouses, commercial nurseries, interiorscapes, and homes.
- Margosan-O® is most effective when applied 2-3 times in succession.
- For use to control gypsy moths, weevils, psyllids, webworms, hornworms, spruce budworms, and pine sawflies on trees and shrubs on residential and commercial landscapes.
- Not for use in food-handling areas.
- Shake well before using.

**DIRECTIONS FOR GREENHOUSE, DOMESTIC OUTDOOR, AND INDOOR APPLICATION****Commercial Use**

- For high volume application, dilute Margosan-O® to a concentration of 2.5 to 5.0 pints per 100 gallons of water (2.5 to 5 teaspoons of Margosan-O® per gallon of water). Mix thoroughly. Apply 25-40 psi with hand sprayer or 100-200 psi with power sprayer as a fine spray to both leaf surfaces to runoff. Excessive application is unnecessary and should be avoided.
- For low volume application, provide 10.6 g active ingredient (equivalent to 7.5 pints Margosan-O®) per acre.
- Sprays may be applied on a preventative 7-day schedule or at the first sign of insect presence. This schedule is effective under low insect pressure. Under high insect pressure, apply every 3-4 days.
- For drench application in greenhouse plantings, use 2.5 pints per 100 gallons and apply at the rate of 1 quart of diluted solution per square foot of growing media surface. Repeat at 14-day intervals during the growing season.
- Spraying directly onto the pest and a longer duration of leaf wetting increase effectiveness. Apply in early to mid-morning or late afternoon. This is particularly important with whitefly adults which are sedentary on the undersides of leaves at these times.
- Margosan-O® in diluted solution should be maintained at pH between 3-8. Use outside of this pH range may cause product degradation. Spray solutions should be used within

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several hours of preparation for maximum effectiveness. Do not store diluted solution for later use.

- Do not add adjuvants (spreaders, surfactants, etc.) to Margosan-O® as it already contains its own surfactant.
- Do not apply to wilted or otherwise stressed plants, or to newly transplanted material prior to root establishment. Do not apply to known spray-sensitive plants without testing. Do not apply when ambient temperature exceeds 90°F (32°C).

#### Home Use

- For use on bedding plants, potted and foliage plants, ornamentals, trees, and shrubs in and around homes to control the immature or larval forms of insect pests.
- For use on trees and shrubs on residential landscapes to control the immature larval stages of pests.
- For use as a repellent against ants, cockroaches, and Japanese beetles.
- Dilute a concentration of 3 fluid ounces (6 tablespoons) of Margosan-O® per gallon of water. Mix thoroughly. Apply with a hand sprayer as a fine spray to leaf surfaces to run-off. Be sure to coat undersides of leaves as this is where many insects hide. Excessive application is unnecessary and should be avoided. Do not apply to known sensitive plants without a prior small-scale test application.
- The 16 oz. hose-end applicator will treat approximately 650 square feet of plant material 3 times. Repeat application 2 to 3 times at an interval of 7-10 days. Apply to both leaf surfaces to run-off. Be sure to coat undersides of leaves as this is where many insects hide. Excessive application is unnecessary and should be avoided. Do not apply to known sensitive plants without a prior small-scale test application.
- Known sensitive plants
  - African Violet flowers
  - Hibiscus flowers
  - Impatiens flowers



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**DIRECTIONS FOR FOOD CROP APPLICATION**

General Directions

- Do not apply this product through any type of irrigation system.
- Use care when applying near streams, ponds, lakes, or other bodies of water. Margosan-O® should not be applied when weather conditions favor drift or when the likelihood of runoff is high.

Specific Crop Directions

CITRUS, POME AND STONE FRUITS				
Crops	Pests	Dilution Rate	Application Rate	Notes
Grapefruits Kumquats Lemons Limes Oranges	Greenhouse & Sweet Potato Whiteflies Mealybugs Leafminers Caterpillars Aphids Fruit flies Psyllids	Use 2.5 pt Margosan-O® at first sign of insect presence. Otherwise, use 5 pt Margosan-O® per 100 gal water	Apply 1.5 gallons of finished spray per 10 ft tree	Do not apply more than 0.22 oz AI/A
Apples Crabapples Pears Quinces Jujubes	Thrips Fall webworms Weevils Gypsy Moths Leafhoppers Grasshoppers			
Apricots Cherries Nectarines Peaches Plums Prunes				

CUCURBITS				
Crops	Pests	Dilution Rate	Application Rate	Notes
Balsam pears Chinese waxgourds Cucumbers Gherkins Gourds Cantaloupes Honeydew melons Mangoes Pumpkins Squashes Watermelons	Greenhouse & sweet potato whiteflies Budworms Fall armyworms Melonworms Pickleworms Rindworms Squash vine borers Leafminers Squash bugs	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	

BULB AND COLE VEGETABLES				
Crops	Pests	Dilution Rate	Application Rate	Notes
Broccoli Brussels sprouts Bok Choy Cabbage Cauliflower Chinese Spinach Celery Collards Cress Endive Fennel Kale Kohlrabi Lettuce Mustard greens Parsley Rhubarb Spinach Swiss Chard Turnip tops	Greenhouse & sweet potato whiteflies Cabbage Loopers Imported Cabbage worm Diamondback moth Aphids Cutworms Thrips Armyworms Leafminers Onion maggots Hornworms Webworms Caterpillars Weevils	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	
Garlic Leek Onions Shallots				

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LEGUME AND FRUITING VEGETABLES				
Crops	Pests	Dilution Rate	Application Rate	Notes
Beans Chick peas Lentils Peas Peanuts Soybeans	Loopers Colorado potato beetles Leafminers Cabbage loopers Caterpillars Greenhouse & sweet potato whiteflies Armyworms Cutworms Soybean loopers	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	
Eggplants Ground cherries Peppers Tomatoes	Hornworms Psyllids Tomato fruitworms Weevils Tomato pinworms Pepper weevils Garden webworms Mexican bean beetles Bean leaf beetles			

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ROOT AND TUBER VEGETABLES				
Crops	Pests	Dilution Rate	Application Rate	Notes
Artichokes	Artichoke plume moths	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	
Beets	Colorado potato			
Carrots	beetles			
Cassava	Leafhoppers			
Ginger	Aster leafhoppers			
Horseradish	Potato flea beetle			
Parsnips	Aphids			
Potatoes	Greenhouse & sweet			
Radishes	potato whiteflies			
Rutabaga	Psyllids			
Sweet potatoes	Cabbage Loopers			
Tumeric	Diamondback moths			
Turnips	Hornworms			
Yams	Webworms			
Yam beans	Caterpillars			
	Armyworms			

SMALL FRUITS AND BERRIES				
Crops	Pests	Dilution Rate	Application Rate	Notes
Blackberry Blueberry Boysenberry Cranberry Current Dewberry Elderberry Gooseberry Grape Huckleberry Loganberry Raspberry Strawberry Youngberry	Gypsy moth Blueberry leafroller Loopers Fruit tree leafroller Grape berry moth Oblique banded leafroller Hornworm Armyworm Tobacco budworm Cherry fruitworm Green fruitworm Grape leafroller Grapeleaf skeletonizer Omnivorous leafroller Caterpillars Mites Thrips	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	

HERBS AND SPICES				
Crops	Pests	Dilution Rate	Application Rate	Notes
Anise Baln. Basil Borage Camomile Caraway Catnip Chives Celery Coriander Cumin Curry leaf Dandelion Dill Fennel Mint Marigold Marjoram Pennyroyal Peppermint Rosemary Rue Sage Savory Spearmint Sweet Bay Tarragon Thyme Wintergreen	Aphids Spider nites Flea beetles Leafhoppers	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	

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NUTS				
Crops	Pests	Dilution Rate	Application Rate	Notes
Almond	Aphids	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	
Beach nut	Peach twig borer			
Brazil nut	Fruittree leafroller			
Butternut	San Jose scale			
Cashew	Chestnut weevil			
Chestnut	Filbert aphids			
Filberts	Filbert leafroller			
Hickory nuts	Filbertworm			
Macadamia	Black margined aphid			
Pecan	Fall webworm			
Pistachio	Lesser webworm			
Walnut	Hickory shuckworm			
	Pecan leaf phylloxera			
	Pecan nut casebearer			
	Pecan spittlebug			
	Pecan stem phylloxera			
	Pecan weevil			
	Twig girdler			
	Walnut caterpillar			
	Calico scale			
	Codling moth			
	Frosted scale			
	Navel orange worm			



MISCELLANEOUS				
Crops	Pests	Dilution Rate	Application Rate	Notes
Cotton	Greenhouse whiteflies Sweet potato whiteflies Thrips Tobacco budworms Cotton bollworms Loopers Armyworms Cotton leafperforators Leafminers Leafrollers Pink bollworms Boll weevils Leafhoppers Cutworms	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	
Rice	Leafhoppers Planthoppers Armyworms Chinchbugs Tadpole shrimp Grasshoppers	Use 2.5 pt Margosan-O® per 100 gal water	Apply 150-300 gallons of finished spray per acre (equivalent to 0.16-0.32 oz AI/A)	

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WARRANTY

W.R. Grace & Co.—Conn. warrants that the material contained herein shall substantially conform to the chemical composition stated herein. The foregoing warranty is in lieu of all other warranties, expressed and implied, including the implied warranties of merchantability and fitness for a particular purpose which are expressly disclaimed. Buyer's sole remedy shall be replacement of defective material or refund of the purchase price. In no event shall Grace be liable for any injury, loss, or damage, direct, indirect, incidental, or consequential arising out of the use of this material.