Pose 188

# RESTRICTED USE PESTICIDE

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

[CHLORPYRIFOS - Before Using This Pesticide Stop Read the Label]

# Cyren® 2E

For non-residential outdoor use to control numerous pests on golf course turf, road medians, industrial plant sites, sod farms, and ornamentals for commercial production; for mosquito control for public health purposes and individual fire ant mound treatment.

#### **ACTIVE INGREDIENT:**

Chlorpyrifos: o,o-diethyl, o-(3,5,6-trichloro-**2-pyridinyl**) phosphorothioate 24.5% INERT INGREDIENTS 75.5% TOTAL 100.0%

Contains xylene range aromatic solvent. Contains 2 pounds of chlorpyrifos per gallon.

Cyren® is a registered trademark of Cheminova

# KEEP OUT OF REACH OF CHILDREN

# WARNING AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

# **FIRST AID**

Organophosphate

**IF SWALLOWED**: Do not induce vomiting. Contains xylene range aromatic solvent. Call a physician immediately. Do not give anything by mouth to an unconscious person. Avoid alcohol.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

**IF IN EYES**: Hold eyelids open and flush with steady, gentle stream for 15 minutes. Call a physician. **IF INHALED**: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**NOTE TO PHYSICIAN**: May pose an aspiration pneumonia hazard. Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine only by injection is an antidote. This product is an organophosphorus ester that inhibits cholinesterase.

IN CASE OF A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE, DAY OR NIGHT, 1-800-228-5635, Ext. 153

#### SEE ADDITIONAL PRECAUTIONARY STATEMENTS INSIDE

EPA Reg. No. 67760-6

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EPA Est. No. \_\_\_

Manufactured For: CHEMINOVA, INC. 1700 Route 23 Wayne, NJ 07470

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# **PRECAUTIONARY STATEMENTS**

# Hazards to Humans and Domestic Animals WARNING

May be fatal if swallowed. May be fatal if absorbed through skin or inhaled. Causes substantial but temporary eye injury. Do not get in eyes, on skin or on clothing. Avoid breathing vapors. Wash thoroughly with soap and water after handling. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Keep away from food, feedstuffs and water supplies.

# 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 G on an EPA chemical resistance category selection chart.

WPS USES: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard [40 CFR Part 170] - - in general, only agricultural - plant uses are covered - - must wear:

- 1. Coveralls over short-sleeved shirt and short pants
- 2. Chemical-resistant gloves, such as barrier laminate or viton
- 3. Chemical resistant footwear plus socks
- 4. Protective eyewear (goggles, face shield or safety glasses).

Exception: Applicators who submerge containerized or balled/burlapped plants in tanks must wear:

- Coveralls over short-sleeved shirt and short pants
- 2. Chemical-resistant gloves, such as barrier laminate or viton
- 3. Chemical-resistant footwear plus socks
- 4. Chemical-resistant apron
- 5. Protective eyewear (goggles, face shield or safety glasses).

NON-WPS USES: Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard [40 CFR part 170] - - in general, only agricultural - plant uses are covered - - must wear:

- 1. Long-sleeved shirt and long pants
- 2. Chemical-resistant gloves, such as barrier laminate or viton
- Shoes plus socks
- 4. Protective eyewear (goggles, face shield or safety glasses).

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **USER SAFETY RECOMMENDATIONS**

## Users should:

- 1. 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 clear clothing.

## **ENVIRONMENTAL HAZARDS**

This pesticide is extremely toxic to fish, birds, and other wildlife. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high vater mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Gover or incorporate spills. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

# PHYSICAL AND CHEMICAL HAZARDS

COMBUSTIBLE: Do not use or store near heat or open flame.

## **DIRECTIONS FOR USE**

Restricted Use Pesticide

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. 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 and restrictedentry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 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:

- 1. Coveralls over short-sleeved shirt and short pants
- 2. Chemical-resistant gloves, such as barrier laminate or viton
- 3. Chemical-resistant footwear plus socks
- 4. Protective eyewear.

# NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box 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 the treated area until the sprays have dried.

## **CHEMIGATION PROHIBITION**

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

# STORAGE AND DISPOSAL

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

**Storage:** Store in original container in secured dry storage area. Prevent cross-contamination with other pesticides and fertilizers. Do not store above 100°F for extended periods of time. Storage below 20°F may result in formation of crystals. If product crystallizes, store at 50° to 70°F and agitate to redissolve crystals. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal (Containers Less Than 1 Gallon): Wrap empty container in paper and dispose of in trash.

Container Disposal (Metal Drum): Triple rinse (or equivalent). 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.

**Container Disposal (Plastic):** Triple rinse (or **equivalent**). Then puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Container Disposal (Returnable / Refillable Containers): Do not break or open any seals or cables. Pump out all possible product. Replace the dust cap in the one-way valve. Do not rinse the container. Return the empty container to a collection site designated by Cheminova or your distributor. If the drum has been damaged or the seals broken, please contact Cheminova at 1-800-548-6113 for instructions.

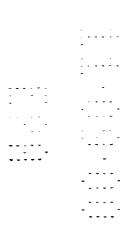
#### **PESTS OUTDOORS**

#### **GENERAL INFORMATION**

Use Cyren 2E to control pests listed on this label for the following turf and ornamental uses: sod farms, golf course turf, turf and ornamentals on road medians and industrial plant sites, and commercial ornamental production. Also use for control of individual fire ant mounds and for mosquito control for public health purposes.

#### **SOD FARMS**

Use Cyren 2E to control pests listed in the following table by application at the recommended dosages and in accordance with the directions given below. Dilute Cyren 2E in enough water to obtain complete and uniform coverage of pest infested areas and apply as a coarse, low-pressure spray using suitable application equipment. Thoroughly water immediately after treatment to wash the insecticide into the turf, except as noted. For best results, the turf should be moist at time of treatment.



# Dosage and Directions for Use on Sod Farm Turf

Pest	Dosage Cyren 2E per 1000 sq. ft.	Remarks
Ants Armyworms Chiggers Chinch bugs Clover mites Crickets Cutworms Earwigs Fleas Grasshoppers Mosquitoes Sod webworms Ticks	1 1/2* fl. oz.	Spray when pests first appear, re-treat when needed. For sod webworms delay watering or mowing the treated areas for 12 to 24 hours after treatment
Turfgrass weevils ( <i>Hyperodes</i> )	3 fl. oz.	Spray suspected problem areas in mid-April and again in mid-May or as recommended by your local agricultural extension service specialist in your area.
White grubs (European chafers) (Southern masked chafers) (Japanese beetle larvae)	3 - 6 fl. oz.	For white grubs spray when grubs are young and actively feeding near the soil surface, usually during late July and August or as recommended by your local agricultural extension service specialist in your area.  Immediately after spraying irrigate the treated area with ½ to 1 inch of water to wash the insecticide into the underlying soil.
Bluegrass billbugs	3 - 6 fl. oz.	Spray early in the season when adults first appear. Re-treat when needed.

<sup>\* 1</sup>  $\frac{1}{2}$  fl. oz. per 1000 sq. ft. = 7  $\frac{1}{2}$  fl. oz. per 5000 sq. ft. = 1 pint per 10,700 sq. ft. = 2 quarts per acre.

#### **GOLF COURSE TURF**

Use Cyren 2E to control pests listed on this label that are infesting golf course turf where these pests are present and create a nuisance or possible public health problem. Apply Cyren 2E in water at the rate of 1 pint per acre (equivalent to 1 fl. oz. per 2,700 sq. ft.) using a hydraulic sprayer, mist applicator, knapsack sprayer, or other suitable hand or power spray equipment. Use enough spray volume to obtain thorough coverage, usually 40 to 100 gallons per acre. Do not apply more than 1 lb. a.i. per acre.

#### **Use Precautions**

Do not allow public use of treated areas during application or until spray has dried.

## **ROAD MEDIANS AND INDUSTRIAL PLANT SITES**

Use Cyren 2E to control pests listed on this label that are infesting turf and ornamentals on road medians and industrial plant sites where these pests are present and create a nuisance or possible public health problem. Apply Cyren 2E in water at the rate of 1 pint per acre (equivalent to 1 fl. oz. per 2,700 sq. ft.) using a hydraulic sprayer, mist applicator, knapsack sprayer, or other suitable hand or power spray equipment. Treat low underbrush, grassy areas, weeds, and ground surface and debris using enough spray volume to obtain thorough coverage, usually 40 to 100 gallons per acre. Do not apply more than 1 lb. a.i. per acre.

#### **Use Precautions**

Do not allow public use of treated areas during application or until spray has dried.

## ORNAMENTALS FOR COMMERCIAL PRODUCTION

Use Cyren 2E to treat flowers, shrubs, vines, shade and flowering trees, and evergreens found to be infested with pests listed in the table below. Dilute Cyren 2E with water according to directions given in the table and apply using suitable hand or power spray equipment in a manner to provide complete and uniform coverage. For best results apply a wetting spray to both upper and lower leaf surfaces and infested limb and trunk areas. Attempt to penetrate dense foliage but avoid overspraying to the point of excessive runoff. Treat when pests appear and repeat at 7 to 10 day intervals, if needed.

**Note:** Do not use on azaleas, camellias, poinsettias, rose bushes, or variegated ivy because of possible injury to these plants.

#### Use Precautions for Ornamental Plant Pests

Keep out of bodies of water.

# Dosages and Dilutions for Use on Ornamental Plants

Pests Controlled	Amount of Cyren 2E in Water to Make			
	3 Gallons	10 Gallons	100 Gallons	
Aphids	0.5 fl. oz.	1.6 fl. oz.	1 pt.*	
Bagworms				
Eastern tent caterpillars			ĺ	
Fall webworms				
Grasshoppers			) }	
Mites			i	
Orangestriped oakworms			[	
Spittlebugs				
Whiteflies			u=u.u.	
Yellownecked caterpillars				

Cutworms	1.0 fl. oz.	3.2 fl. oz.	1 qt.**
Leafhoppers			
Mealy bugs		ŀ	
Mimosa webworms	1	<b>\</b>	
Redhumped caterpillars			
Thrips (exposed)			
Ash borers	2.0 fl. oz.	6.4 fl. oz.	2 qt.***
Lilac borers			
Dogwood borers		l l	
Rhododendron borers	]		
Scale crawlers			
(Oak lecanium)		l l	
(Pine needle)			
(Tea)		]	
(White peach)			
Peach tree borers	5.8 fl. oz.	19.2 fl. oz.	6 qt.****

- Equivalent to 4 ounces of chlorpyrifos per 100 gallons
- \*\* Equivalent to 8 ounces of chlorpyrifos per 100 gallons
- \*\*\* Equivalent to 1 pound of chlorpyrifos per 100 gallons
- \*\*\*\* Equivalent to 3 pounds of chlorpyrifos per 100 gallons

# Wood Boring Insects Infesting Shrubs and Trees Such as Dogwood Borer, Lilac Borer, Ash Borer and Rhododendron Borer

Apply Cyren 2E to the trunks and lower limbs of trees and shrubs when the adults begin to emerge. Consult your state agricultural experiment station or extension service specialist for proper time to treat in your area. Mix at the rate of two quarts of Cyren 2E in 100 gallons of water and apply uniformly as a coarse low-pressure spray.

**Note:** Mosquitoes coming to rest on areas treated for control of turf and ornamental plant pests will be killed for varying periods of time after treatment, depending on exposure of treated areas to weathering conditions.

# Peach Tree Borer

Apply Cyren 2E to flowering trees and shrubs of the genus *Prunus* in water as a trunk spray before newly hatched larvae enter the trees. Apply as a coarse, low-pressure spray. Thoroughly wet all bark areas from ground level to scaffold limbs. Consult your state agricultural experiment station or extension service specialist for proper time to treat in your area.

# Native Elm Bark Beetle

**Prevention of Overwintering:** To prevent the adult beetle from overwintering in uninfected trees and to reduce beetle populations in disease free areas, apply Cyren 2E as a 0.5% mixture of chlorpyrifos in water to the bottom 9 feet of trunk. Wet the trunk thoroughly but do not spray to runoff. Care should be taken to apply the spray right to the base of the root flare. Applications can be made with either a backpack mist blower or a hydraulic pressure sprayer from spring through early fall.

Prevention of Branch and Twig Feeding on High Value Elm Trees: To reduce twig and branch feeding on uninfected trees deemed to be high in value apply a 0.5% chlorpyrifos water spray to the tree crown. Application should be made in the spring or early summer using a sprayer that will give thorough coverage to the tree crown.

#### **IMPORTED FIRE ANT**

Treatment of potted, containerized and balled and burlapped nursery stock: Use Cyren 2E to control imported fire ants in soil attached to roots of these plants by completely submerging the ball of soil in a tank containing Cyren 2E diluted at the rate of 8 fluid ounces per 100 gallons of water. Do not remove burlap wrap or plastic containers with drain holes prior to submerging. Keep soil submerged until complete saturation has occurred, normally about 30 seconds. Wear chemical-resistant gloves, boots and about during this

operation. An alternate treatment to submerging potted plants is to apply a solution containing Cyren 2E (8 fluid ounces per 100 gallons of water) as a substitute for plain water during routine watering activities. This solution should be applied to the point of run-off on a twice-daily schedule for three consecutive days. Do not remove burlap wrap or container from plants prior to treatment. Application should be made in a well-ventilated area.

**Treatment of fire ant mounds:** Apply Cyren 2E as a drench diluted at the rate of 1 fluid ounce (30 cc) per 2 gallons of water. Gently sprinkle a total of 1 gallon of the diluted solution over the surface of each mound using a sprinkler can. Thoroughly wet mound and surrounding area to a 4-foot diameter (12 square feet). For best results apply in cool weather, 65-80\*F, or in early morning or late evening hours. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.

#### MOSQUITO CONTROL IN POPULATED AND RURAL AREAS

IMPORTANT NOTICE: FOR USE IN PUBLIC HEALTH PROGRAMS ONLY BY STATE, COUNTY, LOCAL OR OTHER PUBLIC HEALTH AGENCIES AND THEIR CONTRACTORS. For use only as an adulticide.

Use Cyren 2E to control mosquitoes by application using 1 ½ fl. oz./1000 sq. ft. diluted in enough water to obtain complete and uniform coverage of mosquito infested areas and apply as a coarse, low-pressure spray using suitable application equipment. Spray when mosquitoes first appear, re-treat when needed.

\* 1 ½ fl. oz. per 1000 sq. ft. = 7 ½ fl. oz. per 5000 sq. ft. = 1 pint per 10,700 sq. ft. = 2 quarts per acre.

# WARRANTY DISCLAIMER

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Cheminova makes no other express or implied warranty of merchantability or fitness for a particular purpose or any other express or implied warranty.

#### INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the seller. All such risks shall be assumed by buyer.

# LIMITATION OF REMEDIES

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Cheminova's election, one of the following:

- (1) refund of purchase price paid by buyer or user for product bought, or
- (2) replacement of amount of product used

Cheminova shall not be liable for losses or damages resulting from handling or use of this product unless Cheminova is promptly notified of such loss or damage in writing. In no case shall Cheminova be liable for consequential or incidental damages or losses.

The terms of the warranty disclaimer above and this limitation of remedies cannot be varied by any writien or verbal statements or agreements. No employee or sales agent of Cheminova or the seller is authorized to vary or exceed the terms of the warranty disclaimer or this limitation of remedies in any manner.

Label Code: TBD - Draft submitted to EPA 11/7/00; 9/25/00; 8/22/00

Actions: KM: 11/3/00: per EPA update table heading: sod farm turf; 9/14/00 more updates per EPA. 8/22/00 update per EPA - take - off additional uses. KM: 7/27/00 update per uses left off original. KM 7/5/00 update per EPA MOA

Current Label Code: 9/K22/9