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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® 4E

For non-residential outdoor use to control numerous pests on golf course turf, road medians, industrial plant sites, sod farms, livestock housing, ornamentals for commercial production, trees in nurseries and plantations, and felled trees; 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	44.6%
INERT INGREDIENTS	<u>55.4%</u>
TOTAL	100.0%

This product contains 4 pounds of chlorpyrifos per gallon. Contains aromatic petroleum distillates.

Cyren® is a registered trademark of Cheminova

KEEP OUT OF REACH OF CHILDREN

WARNING AVISO

AL USUARIO: Si Usted no entiende la etiqueta, busque a alguien para que se la explique a Usted en detalle. (TO THE USER: If you do not understand the label, find someone to explain it to you in detail)

SEE ADDITIONAL PRECAUTIONARY STATEMENTS INSIDE

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

EPA Reg. No. 67760-7

EPA Reg. No. 🔏

EPA Est. No

ACCEPTED

NOV 9 2000

Under the Pederal Insecticide,
Pungicide, and Rodenicide Act,
as amended, for the pesticide
Registered under

() CHEMINOVA

Manufactured For

1700 Route 23 Wayne, NJ 07470

FIRST AID

Organophosphorus pesticide

In case of poisoning, call a physician or Poison Control Center immediately. Have person lie down and keep quiet.

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger (be aware that product contains aromatic petroleum distillates). If person is unconscious, do not give anything by mouth and do not induce vomiting

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

IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

IF INHALED: Remove to fresh air if symptoms of cholinesterase inhibition appear. If not breathing, give artificial respiration. Get medical attention.

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression. Antidote: Administer atropine sulphate in large doses. TWO to FOUR mg intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is a pharmacological antidote and may be administered as an adjunct to, but not a substitute for atropine, which is a symptomatic and often lifesaving antidote. DO NOT GIVE MORPHINE OR TRANQUILIZERS. At first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of chlorpyrifos may occur and relapse may occur after initial improvement. VERY CLOSE supervision of the patient is indicated for at least 48 hours.

PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals WARNING

May be fatal if swallowed. Causes substantial but temporary eye injury. Causes skin irritation. Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Applicators and other handlers, including applicators who submerge containerized or

balled/burlapped plants in tanks, must wear: Coveralls worn over short sleeved shirt and short pants 2. Socks Chemical resistant footwear 3. 4. Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber 5. Protective eyewear (goggles, face shield or safety glasses) Chemical-resistant apron when mixing and loading, dipping balled plants, and cleaning equipment.

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:

- Wash thoroughly with soap and water after handling and 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.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to birds, fish 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 water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Cover or incorporate spills. Do not contaminate water when cleaning equipment or disposing of equipment washwater.

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.

CHEMIGATION PROHIBITION

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

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 restricted-entry 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 contacts with anything that has been treated such as plants, soil, or water, is:

- 1. Coveralls worn over short sleeved shirt and short pants
- 2. Socks
- 3. Chemical resistant footwear
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton
- 5. Protective eyewear (goggles, face shield or safety glasses).

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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.

STORAGE AND DISPOSAL

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

Storage: Store in original container in secured dry storage area. Protect against strong heat from sunshine or other source. 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): Securely wrap original container in several layers of newspaper and discard 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

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

PESTS OF TURF AND OUTDOOR AREAS (non-residential use only)

Use Cyren 4E to control the listed pests on golf course turf and turf and ornamentals in road medians and industrial plant sites. Also use for individual fire ant mound treatment. Dilute Cyren 4E in water as directed in the tables below, 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. Spray when pests first appear; re-treat when needed.

Attention

For turf and ornamentals in road medians, turf and ornamentals in industrial plant sites, and golf course turf, do not use a rate greater than 1 lb. ai/acre.

Application Restrictions:

Do not enter or allow others to enter the treated area until sprays have dried.

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.

Pest Amount of Cyren 4E		en 4E per	Specific Directions		
	1000 sq. feet Acre				
Ants (including foraging fire ants) Armyworms (such as: beet, fall, yellowstriped) Centipedes Chiggers (1) Chinch bugs Clover mites Cutworms Crickets Earwigs Fiery skippers Fire ants (mounds) (2) Fleas Gnats Grasshoppers Greenbugs June beetles Leafhoppers Lucerne moths Millipedes Mites (such as: clover, formula grass, winter grain) Mosquitoes (3) Sod webworms (4) (lawn moths) Sowbugs Springtails	¾ fl oz.	1 qt.	1. Use Cyren 4E insecticide for area control of ticks and chiggers infesting road medians and industrial plant sites where these pests are present and create a nuisance or a possible public health problem. Do not allow public use of treated areas during application or until spray has dried. Apply Cyren 4E in water at the rate of ½ pint per acre (equivalent to ½ fl. oz. Per 2,700 sq. ft.) using a hydraulic sprayer, mist applicator, knapsack sprayer, or other suitable hand- or power-operated 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. 2. Individual fire ant mounds: For professional use only. Apply Cyren 4E as a drench, diluted at the rate of 1 fl. oz. (30 ml) per 4 gallons of water. Gently sprinkle a total of 1 gallon of the diluted emulsion over the surface of each mound using a gentle spray (such as a sprinkler can) Thoroughly wet mound and surrounding areas to a 4 ft. diameter (12 sq. ft.). 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. 3. Mosquitoes coming to rest on areas		
Ticks (1)			treated for control of turf pests will be killed for varying periods of time after treatment, depending on exposure of treated areas to weathering conditions. 4. For sod webworms delay watering and mowing the treated area for 12 to 24 hours after treatment.		
European crane flies	3⁄4 fl. oz.	1 gt.	depending on exposure of treated areas to weathering conditions. 4. For sod webworms delay watering and mowing the treated area for 12 to 24 hours after treatment.		
	% fl. oz. % fl. oz.	1 gt. 1 gt.	varying periods of time after treatment, depending on exposure of treated areas to weathering conditions. 4. For sod webworms delay watering and mowing the treated area for 12 to 24 hours		
European crane flies Turfgrass weevils	1		varying periods of time after treatment, depending on exposure of treated areas to weathering conditions. 4. For sod webworms delay watering and mowing the treated area for 12 to 24 hours after treatment. 1. Spray suspected problem areas in mid-Apri and again in mid-May or as recommended by your local agricultural extension service.		
European crane flies Turfgrass weevils	1		varying periods of time after treatment, depending on exposure of treated areas to weathering conditions. 4. For sod webworms delay watering and mowing the treated area for 12 to 24 hours after treatment. 1. Spray suspected problem areas in mid-Apri and again in mid-May or as recommended by your local agricultural extension service.		
European crane flies Turfgrass weevils	1		varying periods of time after treatment, depending on exposure of treated areas to weathering conditions. 4. For sod webworms delay watering and mowing the treated area for 12 to 24 hours after treatment. 1. Spray suspected problem areas in mid-Apri and again in mid-May or as recommended by your local agricultural extension service.		
European crane flies Turfgrass weevils	1		varying periods of time after treatment, depending on exposure of treated areas to weathering conditions. 4. For sod webworms delay watering and mowing the treated area for 12 to 24 hours after treatment. 1. Spray suspected problem areas in mid-Apri and again in mid-May or as recommended by your local agricultural extension service.		

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White grubs (such as: black turfgrass ataenius, European chafer, southern marked chafer, Japanese beetle larvae) (1)	¾ floz	1 qt.	1. 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. Immediately after spraying, irrigate the treated area with ½ to 1 inch of water to wash the insecticide into the underlying soil.
Bluegrass billbugs (1)	3⁄4 fl. oz.	1 qt.	 For bluegrass billbugs, spray early in the season when adults first appear. Re-treat as needed.

Numbers in parentheses refer to Specific Directions.

SOD FARMS

Use Cyren 4E to control the listed pests on sod farms. Dilute Cyren 4E in water as directed in the table below, 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. Spray when pests first appear; re-treat when needed.

Application Restrictions:

Do not enter or allow others to enter the treated area until sprays have dried.

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.

Pest	Amount of Cyr	ren 4E per	Specific Directions		
	1000 sq. feet	Acre			
Ants (including foraging fire ants) Armyworms (such as: beet, fall, yellowstriped) Centipedes Chiggers Chinch bugs Clover mites Cutworms Crickets Earwigs Fiery skippers Fire ants (mounds) Fleas Gnats Grasshoppers Greenbugs June beetles Leafhoppers Lucerne moths Millipedes Mites (such as: clover, formula grass, winter grain) Mosquitoes (1) Sod webworms (2) (lawn moths) Sowbugs Springtails Ticks (1)	3/4 fl oz.	1 qt.	1. Mosquitoes coming to rest on areas treated for control of turf pests will be killed for varying periods of time after treatment, depending on exposure of treated areas to weathering conditions. 2. For sod webworms delay watering and mowing the treated area for 12 to 24 hours after treatment.		
European crane flies	1 fl. oz.	1 qt.	 		
Turfgrass weevils (hyperodes) (1)	1 1/12 fl. oz.	1 qt.	 Spray suspected problem areas in mid-Apri and again in mid-May or as recommended by your local agricultural extension service specialist. 		
White grubs (such as: black turfgrass ataenius, European chafer, southern marked chafer, Japanese beetle larvae) (1)	1 1/2 - 3 fl oz	1 qt.	1. For white grubs, spray when grubs are young and actively feeding near the soil surface, usually during late July and August of as recommended by your local agricultural extension service specialist. Immediately after spraying, irrigate the treated area with ½ to 1 inch of water to wash the insecticide into the underlying soil.		
Bluegrass billbugs (1)	3/4 to 3 fl. oz.	1 qt.	1. For bluegrass billbugs, spray early in the season when adults first appear. Re-treat as needed.		

Numbers in parentheses refer to Specific Directions.

OUTDOOR LIVESTOCK HOUSING

Use to control pests infesting outdoor livestock areas. Dilute Cyren 4E in water as directed in the table below, and apply as a coarse, low-pressure spray using suitable application equipment.

Application Restrictions:

Do not enter or allow others to enter the treated area until sprays have dried.

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.

Pest	Amount of Cyren 4E in water to make		Specific Directions	
	1 gal.	100 gals.		
Ticks (such as: American dog, cattle fever, gulf coast, lone star)	1/4 fl. oz.	1 1/2 pt.	For control of ticks infesting corrals, stockyards, holding pens and other outdoor livestock areas. Treat soil in corrals and pens, especially in corners, under and around fences, grassy areas, protected areas under feeders and shelters and other areas likely to serve as harborage sites for ticks that have removed themselves from their host. Spray surfaces to be treated until wet, but do not create excessive runoff. NOTE: This application is intended as a premise spray only. Do not use as a direct spray on livestock. Take care to avoid creating mist or drift which may come into contact with feed, water or livestock. Livestock should not be allowed in treated areas until spray deposits have dried.	

ORNAMENTALS FOR COMMERCIAL PRODUCTION: SOIL TREATMENT

Use Cyren 4E to treat potted, containerized, and balled and burlapped nursery stock to control the insects in the soil attached to the roots of these plants. Completely submerge the ball of soil in a tank containing diluted Cyren 4E. Do not remove burlap wrap or plastic containers with drain holes prior to submerging. Keep soil sub-merged until complete saturation has occurred, normally about 30 seconds.

NOTE: Application should be made in a well-ventilated area.

Attention: Environmental factors significantly affect phytotoxicity. Cyren 4E has been tested on numerous ornamental plants without causing serious phytotoxicity. However, because of the numerous varieties grown, it is recommended that a small group of plants be treated at the recommended rate under the anticipated growing conditions and observed for phytotoxic symptoms for at least 7 days, before a large number of plants are treated.

ORNAMENTALS: SOIL TREATMENT

Pests	Amount of Cyren 4E in water to make :		Specific Directions
	1 gal	100 gal.	
Fire ants (1)	1/4 fl. oz.	1 1/2 pt.	1. An alternate treatment to submerging potted plants is to dilute 4 oz. of Cyren 4E in 100 gals. of water. This dilution should be applied to the point of runoff on a twice-daily schedule for three consecutive days. Do not remove burlap wrap or container from plants prior to treatment.
Grubs Weevils	2/3 fl. oz.	2 qt.	

Numbers in parentheses refer to Specific Directions.

ORNAMENTALS FOR COMMERCIAL PRODUCTION: FOLIAR SPRAY

Use Cyren 4E to treat flowers, shrubs, evergreens, vines, shade and flowering trees found to be infested with pests listed in the following table. Dilute Cyren 4E with water according to directions given in the table and apply using suitable hand- or power-operated spray equipment in a manner to provide complete and uniform coverage. For best results, apply a coarse spray to thoroughly wet 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.

Consult your state agricultural experiment station or extension service specialist for application timing and other specific use information.

NOTE: Environmental factors have significant effects on phytotoxic expression. Cyren 4E has been tested on numerous ornamental plants without causing serious phytotoxicity. However, do not use on azaleas, camellias, poinsettias, rose bushes, or variegated ivy because of possible injury to these plants.

KEEP OUT OF GARDEN FISHPOOLS AND OTHER BODIES OF WATER.

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ORNAMENTALS FOR COMMERCIAL PRODUCTION: FOLIAR SPRAY

Pest	Amount of Cyren 4E in water to make			Specific Directions	
	1 gallon	3 gallons	100 gallons		
Adelgids (such as: cooley and eastern spruce galls, pine bark) Ants (including foraging fire ants) Aphids (such as: apple, chrysanthemum, cottonwood, elm leaf, peach, rose, spirea, wooly) Armyworms (such as: fall, yellowstriped) Bagworms (1) Boxelder bugs Cankerworms Catalpa sphinx Chiggers	1/12 fl. oz.	1/4 fl. oz		For bagworms, treat when insects are in the crawler stage.	

Citrus mealybugs	2. For effective control of leafrollers, spray
Cockroaches (such as:	should be applied before leaves are tightly
American, brownbanded,	rolled.
German, Oriental, smokey	Tonisa.
brown)	3. For effective control of maple leafcutter
Elm spanworms	on maple trees, apply spray to larvae as
Fall webworms	cases are being formed. Do not treat sugar
Grasshoppers	maple trees intended for maple syrup
Green fruitworms	production.
Homworms	production.
Jackpine budworms	4. For effective control of enider mites
Juniper webworms	4. For effective control of spider mites
1 ' 1 1	when large numbers of eggs are present,
Katydids	apply a second spray 3 to 5 days in the
Lace bugs	South or 7 to 10 days in the North after
Leafhoppers	initial treatment to control newly hatched
Leafrollers (2)	nymphs.
Maple leafcutters (3)	
Mites (such as: clover, red	
spider, southern red) (4)	
Oleander caterpillars	
Orange tortrices	
Periodical cicadas	
Plant bugs	
Poplar tentmakers	
Psyllids	
Puss caterpillars	
Rose chafers	
Sawflies (such as: pine, pin	
oak, redheaded)	
Sowbugs	
Spittlebugs	
Spring elm caterpillars	
Springtails	
Spruce budworms	
Tent caterpillars (such as:	
eastern, forest, western)	
Thombugs	
Walnut caterpillars	
Western spruce budworms	
Whiteflies	
Yellownecked caterpillars	

Armyworms (beet)	1/6 fl.	1/2 fl. oz	1 pt.	To reduce twig and branch feeding by
Beetles (fuller rose, native	OZ.	Ì		bark beetles, applications should be made
elm bark)	İ	İ		in the spring or early summer.
Cutworms	}			
Leafhoppers	ŀ	ŀ		2. To kill migrating and invading gypsy
Mahogany webworms				moth larvae, treat trunks and foliage.
Mealybugs	l			
Mimosa webworms		•		3. Blackvine weevils are night feeders. Late
Moths (such as: cypress tip,	1			afternoon spraying will give control in some
Douglas fir tussock,				areas.
European pine shoot,				
gypsy (2), holly bud,				
Nantucket pine tip,	1			
pandora, pitch pine tip,	ì	<u>'</u>		
subtropical pine tip,	1			
tussock)		1		
Oakworms (such as:	1	\		\
California, orangestriped,	1			
redhumped)				
Redhumped caterpillars		1		
Thrips (exposed)				
Weevils (such as, blackvine		}		
(3), yellow poplar, pine	[ļ
reproduction)	 	<u> </u>	<u></u>	
Beetles (such as:	1/6 to	1	1 pt. to	For cottonwood leaf beetles, use Cyren
cottonwood leaf (1), elm	1/3 fl.	1 fl. oz.	1qt.	4E in water to control larvae and adults
leaf, flea, willow leaf)	oz.]		infesting cottonwoods. Make the treatment
	Ì	-		when field counts indicate damaging beetle
3 (4)	4/0 0	1.0		populations are developing or present.
Borers (1):	1/3 fl.	1 fl. oz.	1 qt.	1. For borers, apply Cyren 4E to the trunks
Clearwing moths (such as:	oz.	1		and lower limbs of trees and shrubs when
ash, dogwood, lesser				the adults begin to emerge. Consult your
peachtree, lilac, oak, rhododendron);	1	1		state agricultural experiment station or
Metallic wood (such as:	1]		extension service specialist for proper time
bronze birch, flatheaded		1		to treat. Apply uniformly as a coarse
appletree, twolined	1			low-pressure spray.
chestnut);	1	l		
Longhorned beetles (such	ŀ			
as: locust, red oak)	ŀ	Į į		[
_eafminers]		
Needle miners (such as:	1	1		
jeffrey pine, lodgepole pine,				ĺ
spruce)	1			
Scale crawlers (such as:				
cottony cushion, cottony	1	1		
maple, euonymus, fletcher,	1	1		\
Florida wax, golden oak,	}			•]
-	İ			.
nemispherical, lecanium		ŀ		·
hemispherical, lecanium, magnolia, oak kermes.	1	}	!	!
magnolia, oak kermes,				277272
magnolia, oak kermes, oystershell, pine needle,				
magnolia, oak kermes,				- 1
magnolia, oak kermes, oystershell, pine needle,				
magnolia, oak kermes, oystershell, pine needle,				

Borers (such as: cottonwood, peachtree (1))	1 ft. 02.	3 fl. oz.	3 qt	1. For peachtree borers, apply Cyren 4E in water to flowering trees and shrubs of the genus <i>Prunus</i> 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.
Beetles (such as: ambrosia, anobiidae, black turpentine, cottonwood leaf, elm leaf, European elm bark, flea, fuller rose, Japanese, June, native elm bark, southern pine, willow leaf) (1)	2 2/3 fl. oz.	8 fl. oz.	2 gal.	1. For preventive treatment, apply the spray to the main trunk of trees in the early spring or when threat of attack exists from nearby infested trees. For remedial treatment, apply the spray to the main trunk of infested trees when damage occurs but before adult beetles begin to emerge.

Numbers in parentheses refer to Specific Directions

ORNAMENTAL AND FOREST TREE PESTS: NURSERIES, PLANTATIONS, AND FELLED TREES

Use Cyren 4E to treat shade and flowering trees, plantation trees, transplant trees, and evergreens found to be infested with pests listed in the following table. Felled trees, such as elms, should be treated as necessary. Dilute Cyren 4E with water as directed in the table and apply using suitable hand or power-operated spray equipment in a manner to provide complete and uniform coverage. For best results, apply a coarse spray to thoroughly wet 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.

Attention: For felled trees, treat after cutting; do not handle until spray has dried. Do not treat bearing fruit and nut trees with Cyren 4E except as indicated in the DORMANT SPRAY section. Treat when pests appear and repeat at 7 to 10 day intervals, if needed.

Consult your state agricultural experiment station or extension service specialist for application timing and other specific use information.

Pest	Amount of 0 Water to	•	Specific Directions	
	1 gallon	100 gallons		
Adelgids (such as. cooley and eastern spruce gall, pine bark) Aphids (such as: apple, chrysanthemum, cottonwood, elm leaf, peach, rose, spirea, woolly) Bagworms (1) Boxelder bugs Cankerworms Catalpa sphinx Citrus mealybugs Elm spanworms Fall webworms Greenstriped mapleworms Jackpine budworms Juniper webworms Katydids Lace bugs Leafhoppers Leafrollers (2) Maple leafcutters (3) Mites (such as: clover, red spider, southern red) (4) Oak skeletonizers Poplar tentmakers Puss caterpillars Sawflies, exposed (such as: pine, pin oak) Spring elm caterpillars Spruce budworms Tent caterpillars (such as: eastern, forest, western) Walnut caterpillars Western spruce budworms Yellownecked caterpillars	1/12 fl. oz	8 fl. oz	1. For bagworms, treat when insects are in the crawler stage. 2. For effective control of leafrollers, spray should be applied before leaves are tightly rolled. 3. For maple leafcutters on maple trees, apply spray to larvae as cases are being formed. Do not treat sugar maple trees intended for maple syrup production. 4. For effective control of spider mites, when large numbers of eggs are present, apply a second spray after 3 to 5 days in the South or 7 to 10 days in the North after initial treatment to control newly-hatched nymphs.	

Beetles (fuller rose, native elm bark)(1) Leafhoppers Mahogany webworms Mealybugs Mimosa webworms Moths (such as: browntail, cypress tip, douglas fir tussock, European pine shoot, gypsy (2), holly bud, Nantucket pine tip, pandora, pitch pine tip, subtropical pine tip, Tussock) Oakworms (such as: California, orangestriped, redhumped) Redhumped caterpillars Thrips (exposed) Weevils (such as: blackvine (3), yellow poplar, pine reproduction)	1/6 fl. oz.	1 pt.	1. To reduce twig and branch feeding by bark beetles, applications should be made in the spring or early summer. 2. To kill migrating and invading gypsy moth larvae, treat trunk and foliage. 3. Blackvine weevils are night feeders. Late afternoon spraying will give control in some areas.	
Beetles (such as: cottonwood leaf (1), elm leaf, flea, willow leaf)	1/6 to 1/3 fl. oz.	1 pt to 1 qt.	1. For cottonwood leaf beetles, use Cyren 4E in water to control larvae and adults infesting cottonwoods. Make the treatment when field counts indicate damaging beetle populations are developing or present. For seedlings use 8 to 20 gallons of spray volume per acre.	·
Borers (1): Clearwing moths (such as: ash, dogwood, lesser peachtree, lilac, oak, rhododendron); Metallic wood (such as: bronze birch, flatheaded appletree, twolined chestnut); Longhorned beetles (such as: locust, red oak) Cranberry girdler larvae (2) Leafminers Needleminers (such as: Jeffrey pine, lodgepole pine, spruce) Scale crawlers (such as: cottonycushion, cottonymaple, euonymus, fletcher, Florida wax, golden oak, hemispherical, lecanium, magnolia, oak kermes, oystershell, pine needle, San Jose, tea, white birch)	1/3 fl. oz.	1 qt	1. For borers, apply Cyren 4E to the trunks and lower limbs of trees and shrubs when the adults begin to emerge. Consult your local state agricultural experimental station or extension service specialist for proper time to treat. Apply uniformly as a coarse low-pressure spray. 2. For cranberry girdler larvae, infesting Douglas fir seedlings apply 1 quart of Cyren 4E per acre. Direct spray at the lower crown and stems using 50 gallons of water per acre. Irrigate immediately after application for soil penetration of 1-2 inches. Treat after egg laying during the summer.	

Borers (such as: cottonwood,	1fl. oz.	3 qt	1. For peach tree borers, apply
peachtree (1))			Cyren 4E in water to flowering
, ,,			trees and shrubs of the genus
			Prunus 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.
Beetles (1) (such as: cottonwood leaf,	1 1/3 fl. oz.	1 gal.	1. For preventive treatment,
elm leaf, flea, fuller rose, native elm]		apply the spray to the main
bark (2), willow leaf)			trunk of trees in the early spring
			or when threat of attack exists
			from nearby infested trees. For
			remedial treatment, apply the
			spray to the main trunk of
	İ		infested trees or logs when
			damage occurs but before adult
			beetles begin to emerge. For
			plantation trees, apply to
			individual trees using suitable
			hand- or power-operated spray
			equipment.
	1		2. To prevent native elm bark
			beetles from overwintering in
		ļ	uninfested trees, apply Cyren
			4E in water to the bottom 9 feet of the 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.
			Application can be made with
			either a backpack mistblower or
			a hydraulic pressure sprayer
			from spring through to early fall.
			To reduce the twig and branch
			feeding on uninfested trees
	1		deemed to be of high value,
			apply a water spray to the tree
			crown. Application should be
			made in the spring or early
	Į.		summer using a sprayer that
			will give thorough coverage to
	<u> </u>		the tree crown.

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Beetles (such as: ambrosia, anobiidae, black turpentine, blister, European elm bark, Japanese, June, southem pine, spruce) (1) Carpenter ants Termites	2 2/3 fl. oz.	2 gal.	1. For preventive treatment, apply the spray to the main trunk of trees in the early spring or when threat of attack exists from nearby infested trees. For remedial treatment, apply the spray to the main trunk of infested trees or logs when damage occurs or before adult beetles begin to emerge. For plantation trees, apply to individual trees using suitable hand- or power-operated spray equipment.
Weevils (such as: northern pine, pales, pitch-eating, twig) (1)	5 1/3 fl. oz.	4 gal.	1. For southern pine seedlings, treat immediately after transplanting. Treat each seedling with enough spray to thoroughly wet the foliage and stems to the point of runoff but do not use more than 6 gallons of spray dilution per acre.

Numbers in parentheses refer to Specific Directions

DORMANT SPRAY: ORNAMENTAL AND FOREST TREE PESTS

Use Cyren 4E as a dormant or delayed dormant spray at the rates indicated to control the listed insects. Spray the entire tree to runoff using suitable ground spray equipment. Use the higher dosage of Cyren 4E for severe infestations. Use oil as recommended by your state agricultural experiment station or extension service specialist.

Restrictions: Make only one application during the dormant season. Do not allow meat or dairy animals to graze in treated areas.

Pest	Amount of Cyren 4E in water to make		Specific Directions
	1 gal.	100 gals.	l
Aphids (such as: mealy plum, rosy apple, wooly apple) Borers (such as: peach twig) Cutworms (such as: climbing) Leafrollers (such as: pandemis) Pear psylla adults Plant bugs Scales (such as: San Jose)	1/12 to 1/6 fl. oz.	1/2 to 1 pint	Tank mix with 1 to 2 gallons of a petroleum spray oil recommended for dormant use in 100 gallons of water.

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 4E to control mosquitoes by application using 3/4 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, retreat when needed.

* 3/4 fl. oz. per 1000 sq. ft. = 3 3/4 fl. oz. per 5000 sq. ft. = 8 oz. per 10,700 sq. ft. = 1 quart per

WARRANTY LIMITATIONS AND 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 therein under normal conditions of use. THIS IS THE ONLY WARRANTY MADE ON THIS PRODUCT. NO OTHER EXPRESS AND NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE OUTSIDE OF THIS LABEL. Therefore, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), under abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes, etc.) or under conditions not reasonably foreseeable to or beyond the control of seller.

When buyer or user suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), buyer or user must promptly notify in writing Cheminova of any claims to be eligible to receive either remedy given below. The EXCLUSIVE REMEDY OF THE BUYER OR USER and the LIMIT OF LIABILITY of Cheminova or any other seller will be one of the following, at the election of Cheminova:

- (1) Refund of purchase price paid by buyer or user for product bought, or
- (2) Replacement of amount of product used.

The seller will not be liable for consequential or incidental damages or losses.

The terms of this Warranty Limitations And Disclaimer cannot be varied by any written or verbal statements or agreements. Any employee or sales agent of the seller is not authorized to vary or exceed the terms of this Warranty Limitations And Disclaimer in any manner.

Actions: KM: 11/9/00 add livestock housing to front panel per EPA; KM: 11/7/00 update per EPA letter-tables/rates/etc. KM: 9/22/00 – update per 9/8/00 EPA letter; 8/23/00 update per EPA – no new uses KM: 7/27/00 update per uses left off original. KM 7/5/00 update per EPA MOA

Label Code: TBD - Draft Submitted to EPA 11/9/00

Current Label Code: 9/K9/9

