UNICORN

DURSBAN* 2E INSECTICIDE

To be Applied Only by or Under the Direct Supervision of Commercial Applicators Responsible for Insect Control Programs.

ACTIVE INGREDIENT:

INERT INGREDIENTS: **..... 75.9%

Contains 2 pounds of chlorpyrifos per gallon

- ** Contains xylene range aromatic solvent.
- * Trademark of DowElanco.

ACCEPTED

SEP 2 9 1992

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

KEEP OUT OF REACH OF CHILDREN

WARNING

See Side/Back Panel for Additional Precautionary Statements

NET CONTENTS:

MANUFACTURED BY:

Unicorn Laboratories 1002 118th Avenue North St. Petersburg, Florida 33716

NOTICE: Read and understand the entire label before using . Use only according to label directions.

Before buying or using this product, read "WARRANTY LIMITATIONS AND DISCLAIMER" elsewhere on this label. If terms are not acceptable return unopened package at once to seller for full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under WARRANTY LIMITATIONS AND DISCLAIMER.

EPA REG. NO. 28293-200(E:11/14/88)

EPA EST. NO. 28293-FL-1

3310

Hazards to Humans and Domestic Animals

WARNING: May be fatal if swallowed. Excessive absorption through skin may be fatal. Causes substantial but temporary eye injury. Causes skin irritation. Do not get in eyes, on skin or clothing. Wear Eye protection. Avoid breathing vapors and spray mist. Handle concentrate in a ventilated area. Wear protective clothing and chemically resistant gloves when handling. Wash thoroughly with soap and water after handling and before eating or smoking. Remove contaminated clothing and wash before reuse. Keep away from food, feedstuffs and water supplies.

Statement of Practical Treatment

IF SWALLOWED: Call a physician or Poison Control Center immediately. Do not induce vomiting. Contains an aromatic petroleum solvent. Do not give anything by mouth to an unconscious person.

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

IF IN EYES: Flush with plenty of water for 15 minutes. Get medical attention.

IF INHALED: Remove to fresh air, if symptoms of cholinesterase inhibition appear and get medical attention immediately.

NOTE TO PHYSICIAN: Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. If exposed, plasma and red blood cell cholinesterase tests may indicate significance of exposure (baseline data is useful). Atropine, only by injection, is the preferable antidote. Oximes, such as 2-PAM/protopam, may be therapeutic if used early; however, use only in conjunction. With atropine. In case of severe acute poisoning, use antidote immediately after establishing an open airway and respiration.

Physical or Chemical Hazards

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

Environmental Hazards

This pesticide is toxic to birds and wildlife, and extremely toxic to fish and aquatic organisms. Do not apply directly to water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites. Cover or incorporate spills. Do not contaminate water by cleaning of equipment or disposal of waste. Do not contaminate water when disposing of equipment washwaters. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

AGRICULTURAL CHEMICAL Do Not Ship or Store with Food, Feeds, Drugs, or Clothing

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not formulate this product into other end-use products.

PESTS INDOORS

General Information: Use Dursban 2E insecticide to control the pests indicated in the areas listed below by application as a 0.25% or 0.5% chlorpyrifos spray. Use the 0.25% spray to control light infestations and the 0.5% spray to quickly reduce heavy infestations or as directed. To prepare the spray, dilute Dursban 2E with water or with a suitable base oil** as shown in the following SPRAY DILUTION CHART. Repeat the treatment as needed.

**Use only deodorized kerosene for oil-based sprays to be applied in food handling establishments.

NOTE: Where quick "knockdown" and/or "flushing action" is desired, dichlorvos (DDVP) or pyrethrins may be added to the spray mixture containing Dursban 2E insecticide. For best results, use dichlorvos at a concentration of 0.25% in both water and oil-based sprays; use pyrethrins at 0.25% in water-base and 0.05% in oil-base sprays. Consult labeling for the dichlorvos or pyrethrins product used to determine the amount needed to give the desired spray concentration. Also read and observe all use and handling precautions for these products. Mixtures of Dursban 2E and dichlorvos (DDVP) should not be sprayed on carpets.

SPRAY DILUTION CHART

Gallons of Spray Mixture Desired	Fluid Ounces + o 0.25% Spray	of Dursban 2E to Use 0.50% Spray.
Water-base spray	2 2 /2	2.2/2
1 2	1-1/3	2-2/3
5 5	6-2/3	13-1/3***•
10	13-1/3	26-2/3
Dil-based spray++	-	••••
1	1	2 •• •
3 '	3	6 • • • •
5	5	10
10	10	21

+ Note: 1 fluid ounce = 2 tablespoonfuls = 6 teaspoonfuls

++ Calculated on basis of deodorized kerosene

Application Within Food Handling Establishments (Places Other than Private Residences in which Food is Held, Processed, Prepared or Served) Including, But Not Limited to, Restaurants, Grocery Stores, Bakeries, Bottling Plants, Canneries and Grain Mills: Use as a spot treatment in and around both food and nonfood areas to control cockroaches (including strains resistant to other insecticides), ants, crickets, firebrats, silverfish, spiders and stored product insects such as confused flour beetles, saw-toothed grain beetles,

Indian meal moths, rice weevils, Mediterranean flour moths and red flour beetles. Apply as a coarse, low pressure (20 psi or less) spray to localized areas where the above posts have been seen or are suspected of hiding or entering. Apply only enough spray to thoroughly cover the surfaces treated using special care to avoid unnecessary runoff. Do not introduce the spray into the air or allow the spray to contact foot or food-contacting surfaces. Areas treated may include dark corners of rooms and closets; along and behind baseboards, beneath and behind stoves, refrigeration units and similar food preparation areas and equipment; floor drains; and around plumbing and other utility installations. For ants apply to ant trails and wherever these pests may find entrance. treatment may encompass crack and crevice treatment by applying small amounts of material directly into openings leading to voids and hollow spaces in walls, equipment legs and bases or which occur at points between different elements of construction or between equipment and floors. Equipment capable of delivering a pinstream of insecticide should be used. Pepeat treatment as needed but not more than once every 7 days in restaurants and similar food service establishments or more often than once every 14 days in other types of food handling establishments. In case of emergency (call back), Dursban 27 may be applied after 2 days from last treatment but emergency use should be limited to once per month.

Applications of this product in food handling establishments other than as a spot and/or crack and crevice treatment are not permitted.

Application Within Residential Buildings Including Homes Apartment Buildings and Within Nonfood Areas of Industrial, Institutional, and Commercial Buildings Including Hospitals, Stores, Manufacturing Plants and Warehouses: For Spot Treatment Only - Apply as a coarse spray or with a paint brush to localized areas where cockroaches (including strains resistant to certain other insecticides), ants, clover mites, crickets, fixebrats, silverfish, and spiders are found or normally occur including dark corners of rooms and closets, cracks and crevices in walls; along baseboards; beneath behind and behind sinks, refrigerators and cabinets; around plumbing and other utility. installations. For ants apply to ant trails, also around doors and .. windows and wherever else these pests may find entrance. Tor clover mites use a 0.5% spray only. Note: A period of 4 to 7 days . is normally required for maximum effect on cockroaches.

For control of carpet beetles, thoroughly apply a 0.5% spray as a spot treatment along baseboards and edges of carpeting, under carpeting, rugs and furniture, in closets and on shelving, and wherever else these insects are seen or suspected.

For control of brown dog ticks, thoroughly apply a 0.5% spray as a spot treatment to infested areas such as pet beds and resting quarters; nearby cracks and crevices; along and behind baseboards, window and door frames and localized areas of floor and floor covering where these pests may be present. Old bedding of pets should be removed and replaced with clean, fresh bedding after treatment. DO NOT TREAT PETS WITH THIS PRODUCT.

Attention (Pests Indoors): Do not apply waterbase sprays of this product in conduits, motor mousings, junction and switch boxes or other electrical equipment because of possible shock hazard. If there is need to treat such areas use only oil-base sprays. Prior to application de-energize electrical equipment. After application allow time for oil to evaporate before starting motors or placing switches in the "ON" position. Do not use in poultry houses. Do not allow spray to contact food, feedstuffs, and water supplies. Thoroughly was dishes and food handling utensils with soap and water if they become contaminated by application of this product. Do not allow children or pets to contact treated surfaces until spray has dried. Remove pets and cover fish bowls (tanks) before spraying.

PESTS OUT-OF-DOORS

General Information: Use Dursban ?E insecticide for control of certain pests on outside surfaces of buildings and on lawns and ornamental plants for area control of ticks and chiggers and for mosquito control. Consult the following directions for dosage and application details to control the pests listed.

Pesis on Outside Surfaces of Buildings: Use Dursban 2E at the rate of 2-2/3 fluid ounces per one gallon of water (0.5% chlorpyrifos emulsion) to control ants, clover mites, cockroaches, crickets, earwigs, fleas, flies, millipedes, mosquitoes, sowbugs, spiders and ticks by application as a residual spray or with a paint brush to outside surfaces of buildings including porches, screens, window frames, eaves, patios, garages, refuse dumps and other areas where these pests congregate or have been seen. Do not treat or allow the spray to contact plants (lawns, flowering plants, shrubs, trees, evergreens, etc.) because of possible injury. Repeat treatment as needed to maintain effectiveness.

NOTE: To help prevent infestation of buildings by ants, crickets, earwigs, millipedes, and sowbugs (pillbugs) treat a band of soil 6 to 10 feet wide around and adjacent to buildings, also the building foundation to a height of 2 to 3 feet, where pests are active and may find entrance. Use 1 pint of Dursban 2E per 100 gallons of water and apply as a coarse spray at the rate of about 10 gallons spray mixture per 1000 sq. ft. to thoroughly and uniformly wet the band area.

Pests of Lawns and other Ornamental and Recreational Turf Grass Areas: Use Dursban 2E to control pests listed in the following table by application at the recommended dosage and in accordance with the directions given below. Dilute Dursban 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 lawn should be moist at time of treatment.

Pests of Ornamentals: Use Durshan 2E insecticide to treat flowers, shrubs, vines, shade and flowering trees, and evergreens found to be infested with pests listed in the following table. Dilute Durshan 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.

DOSAGES AND DIRECTIONS FOR USE ON TURF

Pest	Dosage Dursban 2E per 1,00 sq.ft.	Remarks
Ants Armyworms, Chiggers, Chinch bugs, Clover mite, Crickets Cutworms, Earwigs, Fleas, Grasshoppers, Sod Webworms, Ticks	1-1/2 + fl. oz.	Spray when pests first appear, retreat when needed. For sod webworms, delay watering or mowing the treated areas 12 to 24 hours after treatment.
Turfgrass (Hyperodes) Weevil	3 ft. 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 Including (European chafer Southern masked chafer and Japanese larvae)	3 to 6 fl. oz.	For white grubs spray when grubs are young and actively feeding near the soil surface, usually during late July and Augist or as recommended by your local Agricultural Extension Service Beetle specialist for your area. Immediately after spraying, irrigate the treated area with 1/2 to 1 inch of water to wash the insectioide into the underlying soil.
Bluegrass billbug	3 to 6 fl. oz.	Spray early in the season when adults first appear. Retreat when needed.

^{+ 1-1/2} fl. cz. per 1000 sq. ft. = 7-1/2 fl. oz. per 5000 sq.ft.= 1 pint per 10,700 sq. ft. = 2 quarts per acre.

Wood Boring Insects Infesting Shrubs and Trees Such as Dogwood Borer. Lilac Borer. Ash Borer and Rhododendron Borer: Apply Dursban 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 Dursban 2E in 100 gallons of water and apply uniformly as a coarse low-pressure spray.

<u>Peach Tree Borer:</u> Apply **Dursban 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 your area.

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.

Attention (Lawn and Ornamental Plant Pests): Keep children and pets off treated areas until spray has dried. Keep out of lawn and garden fishpools and other bodies of water.

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 Dursban 2E insecticide 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 back pack mist blower or a hydraulic pressure sprayer from spring through to the early fall. Prevention of Branch and Twig Feeding on High Value Elm Trees. To reduce the 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.

Area Control of Ticks and Chiggers: Use Dursban 2E insectioide to control ticks and chiggers infesting non-cropland areas such as roadsides, footpaths and trails, picnic and camping sites, parks and other recreational areas where these pests are present. and create a nuisance or possible public health problem. Apply Dursban 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.

Attention (Area Control of Ticks and Chiqgers): Do not allow public use of treated areas during application or until spray has dried.

Treatment of potted, containerized and balled Imported Fire Ant: and burlapped nursery stock. Use Dursban 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 Dursban 2E diluted at the rate of 8 fl. oz. 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 rubber gloves, boots and apron during this operation. An alternate treatment to submerging potted plants is to apply a solution containing Dursban 2E (8 oz. 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 wellventilated area. Treatment of Fire Ant Mounds: Apply Dursban 2E as a drench diluted at the rate of 1 fl. oz. (30cc) per 2 gallons Gently sprinkle a total of 1 gallon of the diluted of water. solution over the surface of each mound using a sprinkler can. Thoroughly wet mound and surrounding area to a 4 ft. diameter (12 sq. ft.) For best results apply in cool weather, 65-80°F, or in Treat new mounds as they early morning or late evening hours. appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.

DOSAGES AND DILUTIONS FOR USE ON ORNAMENTAL PLANTS

Pest	Controlled	3 gallons	mount of Durs in Water t 10 gallons	
Aphids Bagworms Eastern tent caterpillar Fall webworm Grasshoppers	Mites Orangestriped Oakworm Spittlebugs Whiteflies Yellownecked caterpillar	0.5 fl.oz.	1.6 fl.oz.	l pint+
Cutworms Leafhoppers Mealybugs	Mimosa webworm Redhumped caterpillar Thrips (exposed)	1.0 fl.oz.	3.2 fl.oz.	1 quart++
Ash borer Lilac borer Dogwood borer Rhododendron borer	Scale crawlers Oak lecanium Pine needle Tea, White peach	2.0 fl.oz.	6.4 fl.oz.	2 quarts+f+
Peach tree borer		5.8 fl.oz.	19.2 fl.oz.	6 quarts++++

⁺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

Mosquitoes: Apply Dursban 2E insecticide to mosquito infested, non-crop areas according to the conditions and rates shown in the following table. Mix Dursban 2E with either water or oil such as kerosene or No. 2 fuel oil, using sufficient spray volume to give uniform coverage of area treated. Apply the spray using suitable application equipment such as hand and power ground sprayers, mist applicators, and aerial spray equipment.

<u>Warning (Mosquito Control):</u> Read complete Environmental and Use Precautions and consult your State Fish and Game Department before using this product for mosquito control.

CONDITIONS AND RATES TO USE FOR MOSQUITO CONTROL

	Amount to Use Per Acre		1	
Condition of Area to be Treated	DURSBAN 2E (fluid ounces)	Chlorpyrifos (pounds)	Number Acres 1 Gallon of Dursban 2E Will Treat	
Adult Control Light to medium vegetative cover	1.6	0.025	80	
Medium to heavy vegetative cover	3.2 +	0.05 +	40	

⁺ The higher dosage will also give faster knockdown and longer residual control where there is little or no vegetative cover.

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. If container is damaged or spill occurs, use product immediately or dispose. of product and damaged container as indicated below.

PESTICIDE Pesticide wastes are toxic. Improper disposal of excess nesticide,
DISPOSAL: 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 METAL DRUM - Triple rinse (or equivalent). Then offer for DISPOSAL: recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

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.

Containers One Gallon or Less: Do not reuse container. Wrap and discard in trash.

WARRANTY LIMITATIONS AND DISCLAIMER

The Manufacturer 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 WARRANT, 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 The Manufacturer, 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 The Manufacturer, of any other seller will be one of the following, at the election of The Manufacturer:

(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.

