

FOR SIG

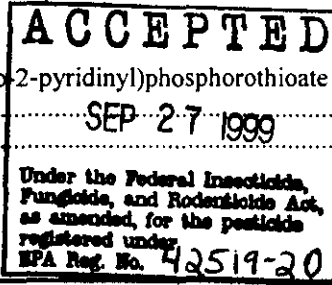
(Base label):

Dorsan 2E

To be applied only by or under the direct supervision of commercial applicators responsible for insect control programs. Sale to or use by persons owning or occupying a dwelling is strictly prohibited.

Active Ingredient:

chlorpyrifos: O,O-diethyl-O-(3,5,6-trichloro-2-pyridinyl)phosphorothioate	24.8%
Inert Ingredients:	75.2%
Total	100.0%



Contains 2 pounds of chlorpyrifos per gallon.

Precautionary Statements

Hazards to Humans and Domestic Animals

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 the label, find someone to explain it to you in detail.)

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. 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.

First Aid

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 are 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.

Environmental Hazards

This pesticide is toxic to birds and wildlife, and extremely toxic to fish and aquatic organisms. 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 adjacent aquatic sites. Cover or incorporate spills. 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.

Physical or Chemical Hazards

Combustible - Do not use or store near heat or open flame. Do not cut or weld container.

Refer to label booklet for additional precautionary information and Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.**

In case of emergency endangering health or the environment involving this product, call 1-800-424-9300.
Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 42519-~~XX~~^{FN}

EPA Est. xxxxx-xx-xx

Luxembourg-Pamol, Inc. • Memphis, TN 38137 U.S.A.

Specialty Insecticide

Net Contents XXX

(Page 1 through end):

Table of Contents	Page
Precautionary Statements.	
Hazards to Humans and Domestic Animals.	
Personal Protective Equipment (PPE)	
User Safety Recommendations	
First Aid.	
Environmental Hazards.	
Physical or Chemical Hazards.	
Directions for Use.	
Agricultural Use Requirements	
Storage and Disposal.	
Pests Indoors.	
General Information.	
Spray Dilution Chart.	
Use Precautions.	
Application Within Food Handling Establishments.	
Application Within Residential Buildings.	
Pests Outdoors.	
General Information.	
Pests on Outside Surfaces of Buildings.	
Pests of Lawns and Other Ornamental and Recreational Turf Grass Areas.	
Dosage and Directions for Use on Turf.	
Pests of Ornamentals.	
Use Precautions.	
Wood Boring Insects Infesting Shrubs and Trees.	
Peach Tree Borer.	
Native Elm Bark Beetle.	
Dosages and Dilutions for Use on Ornamental Plants.	
Area Control of Ticks and Chiggers.	
Use Precautions.	
Warranty Disclaimer.	
Inherent Risks of Use.	
Limitation of Remedies.	

Precautionary Statements

Hazards to Humans and Domestic Animals**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 the label, find someone to explain it to you in detail.)

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. 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.

First Aid

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 are useful). At, 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.

Environmental Hazards

This pesticide is toxic to birds and wildlife, and extremely toxic to fish and aquatic organisms. 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 adjacent aquatic sites. Cover or incorporate spills. Do not contaminate water when disposing of equipment washwaters. This product is highly toxic to 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.

Physical or Chemical Hazards

Combustible - Do not use or store near heat or open flame. Do not cut or weld container.

Directions for Use

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

Read all Directions for Use carefully before applying.

Do not formulate this product into other end-use products.

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

Not for use on plants grown for sale or other commercial use, or for commercial seed production, or for research purposes. For use on plants intended for aesthetic purposes or climatic modification and being grown in interior landscapes, ornamental gardens or parks, or on golf courses or lawns and grounds.

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 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.

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

Pests Indoors

General Information

Use Dorsan 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 Dorsan 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, pyrethrins may be added to the spray mixture containing Dorsan 2E. For best results, use pyrethrins at 0.25% in water-base and 0.05% in oil-base sprays. Consult labeling for the 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.

Spray Dilution Chart

Gallons of Spray Mixture Desired	Fluid Ounces† of Dorsan 2E to Use	
	0.25% spray	0.50% spray
Water-base spray		
1	1.3	2.6
3	4	8
5	6.6	13.3
10	13.5	26.6
Oil-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

Use Precautions

Do not apply water-base sprays of this product in conduits, motor housings, junction and switch boxes or other electrical equipment because of possible shock hazard. If there is a 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 wash 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.

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 certain 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 pests 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 food 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. Spot 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. Repeat 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), Dorsan 2E 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 and 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**, **firebrats**, **silverfish**, and **spiders** are found or normally occur including dark corners of rooms and closets; cracks and crevices in walls; along and behind baseboards; beneath and behind sinks, stoves, refrigerators and cabinets; around plumbing and other utility installations. For ants apply to any trails, also around doors and windows and wherever else these pests may find entrance. For 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.**

Pests Outdoors

General Information

Use Dorsan 2E for control of certain pests on outside surfaces of buildings and on lawns and ornamental plants, and for area control of ticks and chiggers. Consult the following directions for dosage and application details to control the pests listed.

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

Pests on Outside Surfaces of Buildings

Use Dorsan 2E at the rate of 2.6 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. 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 Dorsan 2E per 100 gallons of water and apply as a coarse spray at the rate of about 10 gallons spray mixture per 1000 square feet to thoroughly and uniformly wet the band area.

Pests of Lawns and Other Ornamental and Recreational Turf Grass Areas

Use Dorsan 2E to control pests listed in the following table by application at the recommended dosages and in accordance with the directions given below. Dilute Dorsan 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.

Dosage and Directions for Use on Turf

Pest	Dosage Dorsan 2E per 1000 sq ft	Remarks
ants armyworms chiggers chinch bugs clover mites crickets cutworms earwigs fleas grasshoppers sod webworms ticks	1.5† fl oz	Spray when pests first appear, re-treat when needed. For sod webworms delay watering or mowing the treated areas from 12 to 24 hours after treatment.
turfgrass (<i>Hyperodes</i>) weevil	3.0 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 chafer) (southern masked chafer) (Japanese beetle larvae)	3.0 - 6.0 fl oz	For white grubs spray when grubs are young and are 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 0.5 to 1 inch of water to wash the insecticide into the underlying soil.
bluegrass billbug	3.0 - 6.0 fl oz	Spray early in the season when adults first appear. Re-treat when needed.

†1.5 fl oz per 1000 sq ft = 7.5 fl oz per 5000 sq ft = 1 pint per 10,700 sq ft = 2 quarts per acre.

Pests of Ornamentals

Use Dorsan 2E to treat flowers, shrubs, vines, shade and flowering trees, and evergreens found to be infested with pests listed in the following table. Dilute Dorsan 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 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.

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

Apply Dorsan 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 Dorsan 2E in 100 gallons of water and apply uniformly as a coarse low-pressure spray.

Peach Tree Borer

Apply Dorsan 2E to flowering trees and shrubs of the genus *Prunus* in water as a trunk spray before newly hatched

10/11

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.

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 Dorsan 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 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.

Treatment of fire ant mounds: Apply Dorsan 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.

Dosages and Dilutions for Use on Ornamental Plants

Pests Controlled	Amount of Dorsan 2E in Water to Make		
	3 gallons	10 gallons	100 gallons
aphids bagworms eastern tent caterpillar fall webworm grasshoppers	0.5 fl oz	1.6 fl oz	1 pt†
mites orange-striped oakworm spittlebugs whiteflies yellownecked caterpillar			
cutworms leafhoppers mealy bugs	1.0 fl oz	3.2 fl oz	1 qt††
mimosa webworm redhumped caterpillar thrips (exposed)			
ash borer lilac borer dogwood borer rhododendron borer	2.0 fl oz	6.4 fl oz	2 qt†††
scale crawlers (oak lecanium) (pine needle) (tea) (white peach)			
peach tree borer	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

Area Control of Ticks and Chiggers

Use Dorsan 2E 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 Dorsan 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 e. 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.

Use Precautions

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

Warranty Disclaimer

Luxembourg-Pamol, Inc. 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. Luxembourg-Pamol, Inc. 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 temperature, 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 Luxembourg-Pamol, Inc. 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 Luxembourg-Pamol, Inc.'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

Luxembourg-Pamol, Inc. shall not be liable for losses or damages resulting from handling or use of this product unless Luxembourg-Pamol, Inc. is promptly notified of such loss or damage in writing. In no case shall Luxembourg-Pamol, Inc. 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 written or verbal statements or agreements. No employee or sales agent of Luxembourg-Pamol, Inc. or the seller is authorized to vary or exceed the terms of the "Warranty Disclaimer" or this "Limitation of Remedies" in any manner.