



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

MAR 4 1994

Robert F. Bischoff  
DOWELANCO  
Quad IV 9002 Purdue Rd  
Indianapolis, IN 46268

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 06/24/93 in Response to PR Notice 93-7  
EPA Reg. No. 62719-35  
PROFESSIONAL TURF INSECTICIDE

Dear Registrant:

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

**WHAT THIS ACCEPTANCE MEANS:**

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

**WHAT YOU NEED TO DO NEXT:**

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

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



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

2736

Page 2

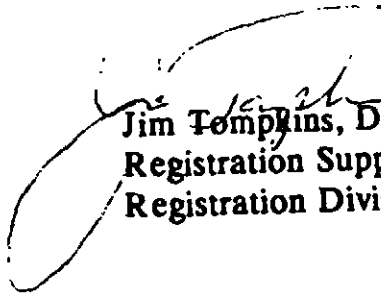
Submit the final printed labeling via the U.S. Postal Service to:

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

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

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

Sincerely,



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

Attachment

DOWELANCO  
PROFESSIONAL TURF INSECTICIDE  
62719-35                    6/24/93  
Original Submission

The Agricultural Use Requirements referral statement in your proposed label does not reflect the language prescribed on page 43 of the Main Labeling Guidance.

In Booklet, page 13 - delete references to PPE in first note.

(Editor's note: Deleted text indicated by strike-through and added text underlined. EPA copy dated 11/21/91 and 1/23/92. Added statements required by worker protection standard.)

(Base label):

(logo) DowElanco

### Professional\* Turf Insecticide

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 . 44.9%

Inert Ingredients: . 55.1%

Contains 4 pounds of chlorpyrifos per gallon.

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### Precautionary Statements

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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 • 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. When handling concentrate, wear protective clothing such as long-sleeved shirt, long-legged pants, hat, rubber gloves and footwear resistant to aromatic solvents, i.e. neoprene or nitrile butadiene rubber. 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.~~

### 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 selections chart.

### Applicators and other handlers must wear:

- Coveralls over a short-sleeved shirt and short pants
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

MAR 4 1994

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

62719-35

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

### **User Safety Recommendations**

#### **Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.**
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.**
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.**

### **First Aid**

#### **An organophosphate insecticide/miticide.**

**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. 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. 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.**

**Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE), and Directions for Use including Agricultural Use Requirements and 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 collect 517-636-4400.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-35  
03377

EPA Est. 464-MI-1  
900-000xxx

\*Trademark of DowElanco  
DowElanco • Indianapolis, IN 46268

**Specialty Insecticide**

(Datapack cover, PTI):

(logo) **DowElanco**

### **Professional\* Turf Insecticide**

**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 . 44.9%

Inert Ingredients: . 55.1%

Contains 4 pounds of chlorpyrifos per gallon.

### **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.)

**Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE), and Directions for Use including Agricultural Use Requirements and Storage and Disposal.**

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**Agricultural Chemical:** Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-35  
03377

EPA Est. 464-MI-1  
900-000xxx

\*Trademark of DowElanco  
**DowElanco • Indianapolis, IN 46268**

**Specialty Insecticide**

(page 2 of datapack):

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## Precautionary Statements

### Hazards to Humans and Domestic Animals

**Keep Out of Reach of Children**

**WARNING**

**AVISO:**

~~Precaucion al usuario: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.~~

~~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 • 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. When handling concentrate, wear protective clothing such as long-sleeved shirt, long-legged pants, hat, rubber gloves and footwear resistant to aromatic solvents, i.e. neoprene or nitrile butadiene rubber. 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.~~

### 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 selections chart.

### Applicators and other handlers must wear:

- Coveralls over a short-sleeved shirt and short pants
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

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

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#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
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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. 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.**

### **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 using.

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

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exemptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as Barrier Laminate or Viton
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

### **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:** 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.

### **General Information**

Dursban Turf Insecticide is an emulsifiable concentrate designed for use as a spray to control various pests injurious to trees, turf and ornamental plants. The pests controlled are listed in the accompanying tables. Dursban Turf Insecticide is compatible with insecticides, miticides, and fungicides commonly recommended except for alkaline materials such as Bordeaux mixture and lime. A small amount of spray mixture should be prepared to check for compatibility before a large volume of spray is mixed.

**Attention:** ~~Do not allow adults, children or pets on treated areas until spray has dried.~~ Keep out of fishpools and other bodies of water. Do not treat vegetable gardens. Do not allow livestock to graze in treated areas. Do not feed treated grass cuttings (hay) or seed screenings to livestock nor use hay for livestock bedding. Do not use in poultry houses.

### **Turf and Other Outdoor Uses**

Use Dursban Turf Insecticide to control the pests listed in the following table by application at the recommended dosages. Dilute Dursban Turf Insecticide in water and apply as a coarse, low-pressure spray using suitable application equipment. For best results, the lawn should be moist at time of treatment. Spray when pests first appear; re-treat when needed, but not more than once every 7 days. To control mole crickets in turfgrasses apply Professional Turf Insecticide through high pressure injection application equipment such as the Cross Equipment Injectaspray™ at a rate of 2 quarts per acre. Apply in a minimum spray volume of 50 gallons of water per acre. For best results, spray when young nymphs are active.

Pest†	Amount of Dursban Turf Insecticide per		Specific Directions
	1000 Sq Ft	Acre	
ants (including foraging fire ants)	3/4 fl oz	1 qt	1. Use Dursban Turf Insecticide for area control of 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 a possible public health problem. Do not allow public use of treated areas during application or until spray has dried. Apply Dursban Turf Insecticide in water at the rate of 1/2 pint per acre (equivalent to 1/2 fl oz per 2,700 sq ft) using a
armyworm (beet) (fall) (yellowstriped)			
centipedes			
chiggers <sup>1</sup>			
chinch bugs			
crickets			
cutworms			
earwigs			
fiery skipper			

fire ants	3/4 fl oz	1 qt
(mounds) <sup>2</sup>		
Insecticide fleas		
grasshoppers		
greenbugs		
June beetles		
leafhoppers		
Lucerne moth		
millipedes		
mites		
(clover)		
(Bermuda grass		
stunt)		
(winter grain)		
mosquitoes <sup>3</sup>		
pillbugs		
sod webworm <sup>4</sup>		
(lawn moths)		
sowbugs		
ticks <sup>1</sup>		

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. For individual fire ant mounds, apply Dursban Turf as a drench, diluted at the rate of 1 fl oz (30 ml) per 4 gallons of water.

Gently sprinkle a total of 1 to 2 gallons of the diluted emulsion over the surface of each mound using a gentle spray (such as a sprinkler can). Thoroughly drench mound and surrounding areas to a 2 foot diameter. 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 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 or mowing the treated area for 12 to 24 hours after treatment.

6/16/93

SRCS

11

European crane fly

1 fl oz

1 1/2 qt

turfgrass weevil (*Hyperodes*)<sup>1</sup>

1 1/2 fl oz

2 qt

- 1. Spray suspected problem areas in mid-April and again in mid-May or as recommended by your local agricultural extension service specialist.

white grubs<sup>1</sup>  
(black turfgrass ataenius)  
(European chafer)  
(southern masked chafer)  
(Japanese beetle larvae)

1 1/2 - 3 fl oz

2 qt - 1 gal

- 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 1/2 - 1 inch of water to wash the insecticide into the underlying soil.

bluegrass billbugs<sup>1</sup>

3/4 - 3 fl oz

1 qt - 1 gal

- 1. For **bluegrass billbugs**, spray early in the season when adults first appear. Re-treat as needed.

mole crickets

1 1/2 fl oz

2 qt

- 1. For **Mole crickets**, apply through high pressure injection application equipment such as the Cross Equipment injectaspray™. Apply in a minimum spray volume of 50 gallons of water per acre. For best results, spray when young nymphs are active.

†Superscripts refer to "Specific Directions".

### Pest Control on Outside Surfaces and Around Buildings

Apply Dursban Turf Insecticide by application as a residual spray to outside surfaces of buildings including porches, window frames, eaves, patios, garages, refuse dumps and other areas where pests congregate or have been seen. Repeat treatment as needed to maintain effectiveness, but not more often than once every 7 days.

Pest†	Amount of Dursban Turf Insecticide in Water to Make			Specific Directions
	1 Gallon	10 Gallons For Perimeter Treatment <sup>1</sup>	50 Gallons	
ants				1. To help prevent infestation of buildings treat a band of soil 6 - 10 ft wide around and adjacent to buildings, also the building foundation to a height of 2 - 3 ft, where pests are active and may find entrance. Use 4 - 16 fl oz of Dursban Turf Insecticide per 50 gal of water and apply as a coarse spray at the rate of about 10 gal spray mixture per 1,000 sq ft to thoroughly and uniformly wet the band area.  2. For scorpions remove accumulations of lumber, firewood, and other materials which serve as insect harborage sites. Make a thorough perimeter treatment around the structure using directions in (1) above.
bees				
boxelder bugs	1/12 - 1/3	3/4 - 3	4 - 16	
carpenter ants	fl oz	fl oz	fl oz	
clover mites				
cockroaches				
crickets				
earwigs				
elm leaf beetles (adults)				
firebrats				
fleas				
flies				
hornets				
millipedes				
mosquitoes				
pillbugs				
scorpions <sup>2</sup>				
silverfish	1 1/3	13 1/3	2 qt	
sowbugs	fl oz	fl oz		
spiders				
springtails				
ticks				
wasps				
yellowjackets				

†Superscripts refer to "Specific Directions".

### Ornamentals (Soil Treatment)

Use Dursban Turf Insecticide 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 Dursban Turf Insecticide. 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.

**Note:** Wear rubber gloves, boots, and apron during this operation. Application should be made in a well-ventilated area.

**Note:** Environmental factors significantly affect **phytotoxicity**. Dursban Turf Insecticide 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.

Pest†	Amount of Dursban Turf Insecticide in Water to Make		Specific Directions
	1 Gallon	100 Gallons	
fire ants <sup>1</sup>	1/4 fl oz	4 fl oz	1. An alternate treatment to submerging potted plants is to dilute 4 fl oz of Dursban Turf Insecticide in 100 gal 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	

†Superscript refers to Specific Directions.

### Ornamentals (Outdoor)

Use Dursban Turf Insecticide to treat flowers, shrubs, evergreens, vines, shade and flowering trees found to be infested with pests listed in the following table. Dilute Dursban Turf Insecticide 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. **Do not use** on fruit and nut trees that will bear fruit within 1 year of application.

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

**Note:** Ornamentals: Dursban Turf Insecticide 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.

Pest†	Amount of Dursban Turf Insecticide in Water to Make			Specific Directions
	1 Gallon	3 Gallons	100 Gallons	
adelgids (cooley gall) (eastern spruce gall) (pine bark)	1/12 fl oz	1/4 fl oz	8 fl oz	<ol style="list-style-type: none"> <li>For <b>bagworms</b> treat when insects are in the crawler stage.</li> <li>For effective control of <b>leafrollers</b> spray should be applied before leaves are tightly rolled.</li> <li>For effective control of <b>maple leafcutter</b> on maple trees apply spray to larvae as cases are being formed. Do not treat sugar maple trees intended for maple syrup production.</li> <li>For effective control of <b>spider mites</b> when large numbers of eggs are present, apply a second spray 3 - 5 days in the south or 7 - 10 days in the north after initial treatment to control newly-hatched nymphs.</li> <li>Locate <b>carpenter ant</b> nest, if possible, and</li> </ol>
ants (including foraging fire ants)		lace bugs leafhoppers leafrollers <sup>2</sup> maple leafcutter <sup>3</sup> mites <sup>4</sup> (red spider) (southern red)		
aphids (apple) (chrysanthemum) (cottonwood) (elm leaf) (peach) (rose) (spirea) (woolly)		oleander caterpillar orange tortrix periodical cicada plant bugs poplar tentmaker Psyllids puss caterpillar rose chafer sawflies, exposed (pine) (pin oak) (redheaded)		
armyworms (fall) (yellowstriped)		sowbugs spittlebugs spring elm caterpillar spruce budworm tent caterpillars (eastern) (forest)		
bagworms <sup>1</sup>				
boxelder bugs				
cankerworms				
carpenter ants <sup>5</sup>				
catalpa sphinx				
chiggers				
citrus mealy bugs				
clover mite				
elm spanworm				
fall webworms <sup>6</sup>				

grasshoppers		(western)		drench thoroughly.
green fruitworm		thornbug		
hornworms		walnut caterpillar		
jackpine budworm		western spruce budworm		6. For control of <b>fall webworm</b> direct spray into web and immediately adjacent foliage.
juniper webworm		whiteflies		
katydids		yellownecked caterpillar		
armyworms	1/6 fl oz	1/2 fl oz	1 pt	1. To reduce <b>tv .g</b> and <b>branch feeding</b> by <b>bark beetles</b> , applications should be made in the spring or early summer.
(beet)				
beetles <sup>1</sup>				2. To kill migrating and invading <b>gypsy moth larvae</b> treat trunks and foliage.
(native elm bark)				
cutworms				3. <b>Blackvine weevils</b> are night feeders. Late afternoon spraying will give control in some areas.
leathoppers				
mahogany				
webworm				
mealy bugs				
mimosa webworm				
moths				
(browntail)				
(cypress tip)				
(Douglas fir tussock)				
(European pine shoot)		oakworms		
(gypsy) <sup>2</sup>		(California)		
(holly bud)		(orangestriped)		
(Nantucket pine tip)		(redhumped)		
(Pandora)		redhumped caterpillar		
(pitch pine tip)		thrips (exposed)		
(subtropical pine tip)		weevils		
(tussock)		(blackvine) <sup>3</sup>		
		(yellow poplar)		
		(pine reproduction)		
foliar feeding	1/6 - 1/3	1/2 - 1	1 pt -	1. For <b>cottonwood leaf beetles</b> use Dursban Turf in water to control larvae and adults infesting cottonwoods. Make the treatment when field counts indicate damaging beetle populations are developing or present.
beetles <sup>1</sup>	fl oz	fl oz	1 qt	
(blister leaf)				
(elm leaf)				
(flea)				
(fuller rose)				
(Japanese)				
(June)				
(willow leaf)				
borers <sup>1</sup>	1/3 fl oz	1 fl oz	1 qt	1. For <b>borers</b> , apply Dursban Turf Insecticide to the trunks and lower limbs of trees and shrubs when the
clearwing moths				
(ash)				
(dogwood)				

(lesser  
peachtree)  
(lilac)  
(oak)  
(rhododendron)  
metallic wood  
(bronze birch)  
(flatheaded  
appletree)  
(twolined  
chestnut)  
longhorned  
beetles  
(locust)  
(red oak)  
cranberry girdler  
larvae<sup>2</sup>  
leafminers  
needleminers  
(Jeffrey pine)  
(lodgepole pine)  
(spruce)

scale crawlers  
(cottonycushion)  
(cottonymaple)  
(Euonymus)  
(Fletcher)  
(Florida wax)  
(golden oak)  
(hemispherical)  
(lecanum)  
(magnolia)  
(oak kermes)  
(oystershell)  
(pine needle  
(San Jose)  
(tea)  
(white birch)

adults begin to emerge.  
Consult your state  
agricultural experiment  
station or extension  
service specialist for  
proper time to treat. Apply  
uniformly as a coarse low-  
pressure spray.

2. For cranberry girdler  
larvae apply 1 quart of  
Dursban Turf Insecticide  
per acre.  
Direct spray at the base of  
tree 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 (cottonwood) (peachtree) <sup>1</sup>	1 fl oz	3 fl oz	3 qt	1. For <b>peachtree borers</b> apply Dursban Turf Insecticide 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 <sup>1</sup> (cottonwood leaf) (elm leaf) (flea) (fuller rose) (native elm bark) <sup>2</sup> (willow leaf)	1 1/3 fl oz	4 fl oz	1 gal	1. For <b>preventive treatment</b> apply the spray to the main trunk of trees in the early spring or when threat of attack exists from nearby infested trees. For <b>remedial treatment</b> apply the spray to the main trunk of infested trees or logs when damage occurs but before adult beetles begin to emerge.  2. To prevent <b>native elm bark beetles</b> from overwintering in uninfested trees, apply Dursban Turf Insecticide in water to the bottom 9 ft 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.
wood infesting beetles <sup>1</sup> (Ambrosia) (Anobiidae) (black turpentine) (European elm bark) (Japanese) (June) (southern pine) (spruce)	2 2/3 fl oz	8 fl oz	2 gal	1. For <b>preventive treatment</b> apply the spray to the main trunk of trees in the early spring or when threat of attack exists from nearby infested trees.  For <b>remedial treatment</b> apply the spray to the main trunk of infested trees when damage occurs but before adult

beetles begin to emerge.

†Superscripts refer to "Specific Directions".

### **Dormant Spray (Tree Pests)**

Use Dursban Turf Insecticide as a dormant or delayed dormant spray at the rates indicated to control the listed insects. Spray the entire tree to dampen using suitable ground spray equipment. Use the higher dosage of Dursban Turf Insecticide 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 Dursban Turf Insecticide in Water to Make			Specific Directions
	1 Gallon	3 Gallons	100 Gallons	
aphids (mealy plum) (rosy apple) (wooly apple)	1/12 - 1/6 fl oz	1/4 - 1/2 fl oz	1/2 - 1 pt	Tank mix with 1 - 2 gallons of petroleum spray oil recommended for dormant use in 100 gallons of water.
borers (peach twig)				
cutworms (climbing)				
leafrollers (pandemis)				
pear psylla adults				
plant bugs				
scale (San Jose)				

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### **Warranty Disclaimer**

DowElanco 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. DOWELANCO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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### **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 DowElanco or the seller. All such risks shall be assumed by Buyer.

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**Limitation of Remedies**

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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 DowElanco'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.

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco 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 DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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(Editor's note: When tables continue on next page, repeat the headings and the footnote about superscripts. See attached booklet for examples.)

**Revisions:**

- 1) Product label amended to remove it from the scope of the Worker Protection Standard.



# Dursban\*

Turf Insecticide

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.

Refer to the label for information on proper use, storage, and disposal. For information on STORAGE AND DISPOSAL, see the label.

By buying or using this product, you accept the product's Warranty, Disclaimer, and Limitation of Remedies, available on the label.

Keep Out of Reach  
of Children

**WARNING**

DOW ELANCO INC. INDEPENDENCE, MO. U.S.A.

**Specialty Insecticide**

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

MAR 4 1994

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

62119-35

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**Precautionary Statements**

**Hazards to Humans and Domestic Animals**

**Keep Out of Reach of Children**

**WARNING AVISO:**

Precaucion al usuario: Si usted no lee inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

May Be Fatal If Swallowed • 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. When handling concentrate, wear protective clothing such as long-sleeved shirt, long-legged pants, hat, rubber gloves and footwear resistant to aromatic solvents, i.e. neoprene or nitrile butadiene rubber. 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.

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This product may not be used on farms, forests, nurseries and greenhouses which produce plants, plant materials or seed for sale, other commercial use, or for research purposes.

**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. 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. 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.

### 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 using.

**Chemigation:** Do not apply this product through any type of irrigation system. Do not formulate this product into other end-use products.

### 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

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### **STORAGE AND DISPOSAL (Cont.)**

pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

**Container Disposal:** 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.

### **General Information**

Dursban Turf Insecticide is an emulsifiable concentrate designed for use as a spray to control various pests injurious to trees, turf and ornamental plants. The pests controlled are listed in the accompanying tables. Dursban Turf Insecticide is compatible with insecticides, miticides, and fungicides commonly recommended except for alkaline materials such as Bordeaux mixture and lime. A small

amount of spray mixture should be prepared to check for compatibility before a large volume of spray is mixed.

**Attention:** Do not allow adults, children or pets on treated areas until spray has dried. Keep out of fishpools and other bodies of water. Do not treat vegetable gardens. Do not allow livestock to graze in treated areas. Do not feed treated grass cuttings (hay) or seed screenings to livestock nor use hay for livestock bedding. Do not use in poultry houses.

### **Turf and Other Outdoor Uses**

Use Dursban Turf Insecticide to control the pests listed in the following table by application at the recommended dosages. Dilute Dursban Turf Insecticide in water and apply as a coarse, low-pressure spray using suitable application equipment. For best results, the lawn should be moist at time of treatment. Spray when pests first appear; re-treat when needed, but not more than once every 7 days.

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Pest <sup>†</sup>	Amount of Dursban Turf Insecticide per		Specific Directions
	1000 Sq Ft	Acre	
ants (including foraging fire ants) armyworm (beet) (fall) (yellowstriped) centipedes chiggers <sup>1</sup> chinch bugs crickets cutworms earwigs fiery skipper fire ants (mounds) <sup>2</sup> fleas grasshoppers greenbugs June beetles leafhoppers Lucerne moth millipedes mites (clover) (Bermuda grass stunt) (winter grain) mosquitoes <sup>3</sup> pillbugs sod webworms <sup>4</sup> (lawn moths) sowbugs ticks <sup>1</sup>	<sup>3</sup> / <sub>4</sub> fl oz	1 qt	<p>1. Use Dursban Turf Insecticide for area control of 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 a possible public health problem. Do not allow public use of treated areas during application or until spray has dried. Apply Dursban Turf Insecticide in water at the rate of <sup>1</sup>/<sub>2</sub> pint per acre (equivalent to <sup>1</sup>/<sub>2</sub> 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.</p> <p>2. For individual fire ant mounds, apply Dursban Turf Insecticide as a drench, diluted at the rate of 1 fl oz (30 ml) per 4 gallons of water. Gently sprinkle a total of 1 to 2 gallons of the diluted emulsion over the surface of each mound using a gentle spray (such as a sprinkler can). Thoroughly drench mound and surrounding areas to a 2 foot diameter. 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.</p> <p>3. 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.</p> <p>4. For sod webworms, delay watering or mowing the treated area for 12 to 24 hours after treatment.</p>

<sup>†</sup>Superscripts refer to "Specific Directions".

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Pest†	Amount of Durban Turf Insecticide per		Specific Directions
	1000 Sq Ft	Acre	
European crane fly	1 fl oz	1 1/2 qt	
turfgrass weevil ( <i>Hyperodes</i> ) <sup>1</sup>	1 1/2 fl oz	2 qt	1. Spray suspected problem areas in mid-April and again in mid-May or as recommended by your local agricultural extension service specialist.
white grubs <sup>1</sup> (black turfgrass ataenius) (European chafer) (southern masked chafer) (Japanese beetle larvae)	1 1/2 - 3 fl oz	2 qt - 1 gal	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 1/2 - 1 inch of water to wash the insecticide into the underlying soil.
bluegrass billbugs <sup>1</sup>	3/4 - 3 fl oz	1 qt - 1 gal	1. For bluegrass billbugs, spray early in the season when adults first appear. Re-treat as needed.
mole crickets <sup>1</sup>	1 1/2 fl oz	2 qt	1. For mole crickets, apply through high pressure injection application equipment such as the Cross Equipment Injectaspray™. Apply in a minimum spray volume of 50 gallons of water per acre. For best results, spray when young nymphs are active.

†Superscripts refer to "Specific Directions".

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### Pest Control on Outside Surfaces and Around Buildings

Apply Dursban Turf Insecticide by application as a residual spray to outside surfaces of

buildings including porches, window frames, eaves, patios, garages, refuse dumps and other areas where pests congregate or have been seen. Repeat treatment as needed to maintain effectiveness, but not more often than once every 7 days.

Pest†	Amount of Dursban Turf Insecticide in Water to Make			Specific Directions
	1 Gallon	10 Gallons	50 Gallons	
	For Perimeter Treatment†			<p>1. To help prevent infestation of buildings treat a band of soil 6 - 10 ft wide around and adjacent to buildings, also building foundation to a height of 2 - 3 ft. where pests are active and may find entrance. Use 4 - 16 fl oz of Dursban Turf Insecticide per 50 gal of water and apply as a coarse spray at the rate of about 10 gal spray mixture per 1,000 sq ft to thoroughly and uniformly wet the band area.</p> <p>2. For scorpions remove accumulations of lumber, firewood, and other materials which serve as insect harborage sites. Make a thorough perimeter treatment around the structure using directions in (1) above.</p>
ants	1/2 - 1/3 fl oz	3/4 - 3 fl oz	4 - 16 fl oz	
bees	For Outside Surfaces			
boxelder bugs	1 1/3 fl oz	13 1/3 fl oz	2 qt	
carpenter ants		homets	sowbugs	
clover mites		millipedes	spiders	
cockroaches		mosquitoes	springtails	
crickets		pillbugs	ticks	
earwigs		scorpions <sup>2</sup>	wasps	
elm leaf beetles (adults)		silverfish	yellowjackets	
firebrats				
flea				
flies				
Homets				

† Superscripts refer to "Specific Directions".

#### Ornamentals (Soil Treatment)

Use Dursban Turf Insecticide 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 Dursban Turf Insecticide. 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.

**Note:** Wear rubber gloves, boots, and apron during this operation. Application should be made in a well-ventilated area.

**Note:** Environmental factors significantly affect phytotoxicity. Dursban Turf Insecticide 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.

Pest†	Amount of Dursban Turf Insecticide in Water to Make		Specific Directions
	1 Gallon	100 Gallons	
fire ants <sup>1</sup>	1/4 fl oz	4 fl oz	1. An alternate treatment to submerging potted plants is to dilute 4 fl oz of Dursban Turf insecticide in 100 gal 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	

†Superscripts refer to "Specific Directions".

### Ornamentals (Outdoor) <sup>c</sup>

Use Dursban Turf Insecticide to treat flowers, shrubs, evergreens, vines, shade and flowering trees found to be infested with pests listed in the following table. Dilute Dursban Turf Insecticide 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. Do not use on fruit and nut trees that will bear fruit within 1 year of application.

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

**Note: Ornamentals:** Dursban Turf Insecticide 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.

Pest†	Amount of Duraban Turf Insecticide in Water to Make			Specific Directions
	1 Gallon	3 Gallons	100 Gallons	
adelgids (cooley gall) (eastern spruce gall) (pine bark)	1/12 fl oz	1/4 fl oz	8 fl oz	<ol style="list-style-type: none"> <li>1. For bagworms, treat when insects are in the crawler stage.</li> <li>2. For effective control of leafrollers, spray should be applied before leaves are tightly rolled.</li> <li>3. For effective control of 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.</li> <li>4. For effective control of spider mites when large numbers of eggs are present, apply a second spray 3 - 5 days in the south or 7 - 10 days in the north after initial treatment to control newly-hatched nymphs.</li> <li>5. Locate carpenter ant nest, if possible, and drench thoroughly.</li> <li>6. For control of fall webworm, direct spray into web and immediately adjacent foliage.</li> </ol>
ants (including foraging fire ants)				
aphids (apple, chrysanthemum) (cottonwood) (elm leaf) (peach) (rose) (spirea) (woolly)				
armyworms (fall) (yellowstriped)				
bagworms <sup>1</sup>				
boxelder bugs				
cankerworms				
carpenter ants <sup>3</sup>				
catalpa sphinx				
chiggers				
	citrus mealy bugs	Psyllids		
	clover mite	pucc caterpillar		
	elm spanworm	rose chafer		
	fall webworms <sup>4</sup>	sawflies,		
	grasshoppers	exposed		
	green fruitworm	(pine)		
	hornworms	(pin oak)		
	jackpine	(redheaded)		
	budworm	sowbugs		
	juniper webworm	spittlebugs		
	katydid	spring elm caterpillar		
	lace bugs	spruce		
	leafhoppers	budworm		
	leafrollers <sup>2</sup>	tent caterpillar		
	maple leafcutter <sup>3</sup>	(eastern)		
	mites <sup>4</sup>	(forest)		
	(red spider)	(western)		
	(southern red)	thornbug		
	oleander	walnut		
	caterpillar	caterpillar		
	orange tortrix	western spruce		
	periodical cicada	budworm		
	plant bugs	whiteflies		
	poplar	yellownecked		
	tentmaker	caterpillar		

† Superscripts refer to "Specific Directions".

Pest †	Amount of Dursban Turf Insecticide in Water to Make			Specific Directions
	1 Gallon	3 Gallons	100 Gallons	
armyworms (beet) beetles <sup>1</sup> (native elm bark) cutworms leafhoppers mahogany webworms mealy bugs mimosa webworms moths (brown tail) (cypress tip)	<sup>1</sup> 1/8 fl oz	<sup>1</sup> 1/2 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 trunks and foliage. 3. Blackvine weevils are night feeders. Late afternoon spraying will give control in some areas.
foliar feeding beetles <sup>1</sup> (blister leaf) (elm leaf) (flies)	<sup>1</sup> 1/8 - <sup>1</sup> 1/2 fl oz	<sup>1</sup> 1/2 - 1 fl oz	1 pt - 1 qt	1. For cottonwood leaf beetles, use Dursban Turf Insecticide in water to control larvae and adults infesting cottonwoods. Make the treatment when field counts indicate damaging beetle populations are developing or present.
borers <sup>1</sup> clearwing moths (ash) (dogwood) (lesser peachtree) (lilac) (oak) (rhododen- dron) metallic wood (bronze birch) (flatheaded apple tree)	<sup>1</sup> 1/3 fl oz	1 fl oz	1 qt	1. For borers, apply Dursban Turf Insecticide to the trunks and lower limbs of trees and shrubs when the adults begin to emerge. Consult you: state agricultural experiment station or extension service specialist for proper time to treat. Apply uniformly as a coarse low-pressure spray. 2. For cranberry girdler larvae, apply 1 quart of Dursban Turf Insecticide per acre. Direct spray at the base of tree 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.

† Superscripts refer to "Specific Directions".

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Pest †	Amount of Dursban Turf Insecticide in Water to Make			Specific Directions
	1 Gallon	3 Gallons	100 Gallons	
borers (cottonwood) (peachtree) <sup>1</sup>	1 fl oz	3 fl oz	3 qt	1. For peachtree borers, apply Dursban Turf Insecticide 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 <sup>1</sup> (cottonwood leaf) (elm leaf) (flea) (fuller rose) (native elm bark) <sup>2</sup> (willow leaf)	1 1/3 fl oz	4 fl oz	1 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 but before adult beetles begin to emerge.  2. To prevent native elm bark beetles from overwintering in uninfested trees, apply Dursban Turf Insecticide in water to the bottom 9 ft 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.
wood infesting beetles <sup>1</sup> (Ambrosia) (Anobiidae) (black turpentine) (European elm bark) (Japanese) (June) (southern pine) (spruce)	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.

† Superscripts refer to "Specific Directions".

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**Dormant Spray (Tree Pests)**

Use Dursban Turf Insecticide as a dormant or delayed dormant spray at the rates indicated to control the listed insects. Spray the entire tree to dampen using suitable ground spray equipment. Use the higher dosage of Dursban Turf Insecticide 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 Dursban Turf Insecticide in Water to Make			Specific Directions
	1 Gallon	3 Gallons	100 Gallons	
aphids (mealy plum) (rosy apple) (woolly apple)	<sup>1</sup> / <sub>12</sub> - <sup>1</sup> / <sub>6</sub> fl oz	<sup>1</sup> / <sub>4</sub> - <sup>1</sup> / <sub>2</sub> fl oz	<sup>1</sup> / <sub>2</sub> - 1 pt	Tank mix with 1 - 2 gallons of petroleum spray oil recommended for dormant use in 100 gallons of water.
borers (peach twig)				
cutworms (climbing)				
leafrollers (pandemis)				
pear psylla adults				
plant bugs				
scale (San Jose)				

† Superscripts refer to "Specific Directions".

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**Warranty Disclaimer**

DowElanco 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. DOWELANCO 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 DowElanco 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 DowElanco'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.

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco 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 DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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 **DowElanco**  
**Dursban**<sup>\*</sup>  
**Turf Insecticide**

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-dimethyl O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate..... 44.9%  
Inert ingredients:..... 55.1%  
Contains 4 pounds of chlorpyrifos per gallon.

### Precautionary Statements

#### Hazards to Humans and Domestic Animals

Keep Out of Reach of Children

## WARNING

May Be Fatal If Swallowed • 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. When handling concentrate, wear protective clothing such as long-sleeved shirt, long-legged pants, hat, rubber gloves and footwear resistant to aromatic solvents, i.e. neoprene or nitrile butadiene rubber. 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.

### Specialty Insecticide

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. 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. 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 flames.

Refer to attached 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 collect 517-636-4400.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

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03377

EPA Est. 464-MI-1  
900-001744

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