

# Specimen Label

## RESTRICTED USE PESTICIDE

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



# Dursban<sup>®</sup> Pro

## Specialty Insecticide

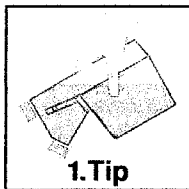
\*Trademark of Dow AgroSciences LLC

### Active Ingredient:

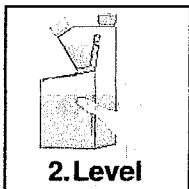
|  |        |
|--|--------|
| chlorpyrifos: 0,0-diethyl 0-(3,5,6-trichloro-2-pyridinyl) phosphorothioate ..... | 23.5%  |
| Inert Ingredients .....  | 76.5%  |
| Total .....  | 100.0% |

Contains 2.0 pounds of chlorpyrifos per gallon.

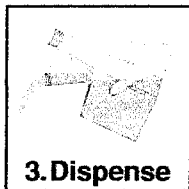
### Container Use Directions



1. Tip



2. Level



3. Dispense

1. Remove the measuring chamber cap and induction seal. Replace cap and securely tighten. Tip container until liquid fills measuring chamber.
2. Return container to level position. No adjustment is needed.
3. Remove measuring chamber cap and dispense into proper application equipment.

**For multiple dose measuring:** remove fill chamber cap and dispense according to markings on side of bottle.

EPA Reg. No. 62719-166

## Keep Out of Reach of Children

## CAUTION

## PRECAUCION

**Precaucion al usuario:** 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.)

### Precautionary Statements

#### Hazards to Humans and Domestic Animals

Harmful If Swallowed, Inhaled, Or Absorbed Through Skin

**Avoid contact with eyes, skin or clothing. Avoid breathing spray mist. Wear eye protection (goggles, face shield, or safety glasses with front, brow, and temple protection), and chemically resistant gloves when handling concentrate to reduce exposure to the eyes and skin. Wash thoroughly with soap and water after handling and before eating or smoking. Remove contaminated clothing and wash before reuse.**

**Note:** See specific use directions for personal protective equipment (PPE) required for application of this product.

#### First Aid

**If swallowed:** Call a physician or Poison Control Center immediately. Do not induce vomiting. Do not put anything into the mouth of an unconscious person.

**If on skin:** Wash exposed area with plenty of soap and water. Get medical attention.

**If in eyes:** Flush eyes with plenty of water for 15 minutes. Get medical attention.

**If inhaled:** Remove person to fresh air and if not breathing give artificial respiration, preferably by mouth to mouth. Get medical attention.

**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, 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. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters. Cover or contain spills outdoors and dispose of in a manner consistent with local, state, and federal regulations.

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

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at [www.dowagro.com](http://www.dowagro.com).

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

## Pests Controlled by Perimeter Treatments of Dursban Pro

|                                       |  |
|---------------------------------------|--|
| Ants                                  | Elm leaf beetles (adults)                  |
| Bees                                  | Fire ants (1)                              |
| Beetles                               | Fleas                                      |
| Boxelder bugs<br>(or other true bugs) | Flies                                      |
| Carpenter ants                        | Hornets                                    |
| Centipedes                            | Millipedes                                 |
| Clover mites                          | Mosquitoes                                 |
| Cockroaches                           | Pillbugs                                   |
| (American)                            | Scorpions (2)                              |
| (Asian)                               | Sowbugs                                    |
| (Brownbanded)                         | Spiders                                    |
| (German)                              | Springtails                                |
| (Oriental)                            | Ticks                                      |
| (Smokybrown)                          | Wasps                                      |
| Crickets                              | Yellowjackets and other outdoor<br>insects |
| Earwigs                               |  |

Numbers refer to "Specific Outdoor Use Directions".

### Specific Use Directions for Perimeter Treatments

- Fire ant mounds** may be controlled by applying Dursban Pro as a drench. Dilute 2 fl oz per 4 gallons of water. Gently sprinkle 1 to 2 gallons of the diluted insecticide over the surface of each mound and surrounding areas to a 2 foot diameter. For best results, apply in cool weather, 65 to 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.
- Scorpions** may be controlled by removing accumulations of lumber, and other materials serving as harborage sites. Before stacking lumber or other materials, apply Dursban Pro as a localized spray to surfaces immediately below such materials.

## General Control of Wood-Infesting Insects (Non-residential Outdoor Only)

Use of this product is limited to non-residential treatment of fence posts, utility poles, railroad ties, landscape timbers, logs, pallets, wooden containers, poles, posts, and processed wood products.

### Directions for General Use to Control Wood-Infesting Insects

Dursban Pro is intended to be mixed with water and applied as a general surface or localized injection treatment with pressurized sprayers or other equipment suitable for applying insecticides to localized areas.

#### PPE for Control of Wood-Infesting Insects

- Wear eye protection (goggles, face shield, or safety glasses with front, brow, and temple protection) when making overhead applications
- To avoid breathing spray mist during application in confined areas, wear a mask or respirator of a type recommended by NIOSH for filtering spray mists

### Precautions for Control of Wood-Infesting Insects

Contact with treated surfaces must be avoided until spray has dried. Do not apply where electrical short circuits could occur.

### Dosage Rates

Applications of 0.5% to 1.0% Dursban Pro can be made depending on pest species and method of application. Expect increased residual control at higher rates. See "Specific Use Directions For Control of Wood-Infesting Insects" for additional information.

### Mixing Directions

To make a 0.5% water based spray mix 2 2/3 fl oz of Dursban Pro per each gallon of spray mixture. To make a 1.0% water based spray mix 5 1/3 fl oz of Dursban Pro per each gallon of spray mixture.

A stable emulsion of Dursban Pro can be formed by first adding approximately one-half the water to a spray tank followed by adding the proper amount of Dursban Pro. Close the tank and shake vigorously for 5 to 10 seconds. To avoid excess foam, slowly add the remaining water.

### Tank Mixing

Unless prohibited by a product's label, users, at their own discretion, can tank mix pesticides currently labeled for similar use patterns. It is always recommended that a small jar compatibility test using proper proportions of chemicals and water be run to check for physical compatibility prior to tank mixing. **Do not** tank mix this product with products containing dichlorvos (DDVP).

### Application Methods

This product may be applied either as a coarse spray or by brushing onto targeted surfaces. Equipment capable of delivering a coarse, low pressure (about 20 psi) spray is recommended for treatment of large or overhead areas. Use sufficient amount of spray dilution to cover the area to the point of wetness but avoid applying to the point of runoff.

### Wood-Infesting Insects Controlled by Dursban Pro

- Beetles (1)
  - (Anobiidae)
  - (Bostrichidae)
  - (Cerambycidae)
  - (Lyctidae)
- Carpenter ants and other wood-infesting ants (2)
- Carpenter bees
- Termites (3)

Numbers refer to "Specific Use Directions for Control of Wood-Infesting Insects".

### Specific Use Directions for Control of Wood-Infesting Insects

- Beetles** may be controlled by applying spray mixture to infested areas, or areas where infestations are likely to occur. Use the following guidelines to determine appropriate rates of application:
  - New Wood, (typically less than 10 years of age) apply at about 1 gallon of dilution per 150 square feet.
  - Old Wood, (typically greater than 10 years of age) apply at about 1 gallon of dilution per 100 square feet.
- Wood-Infesting ants** may be controlled by applying spray mixture where ants may crawl or hide.
- Termites** can be treated by applying spray mixture to infested areas, or areas where infestations are likely to occur. This treatment is intended to kill localized infestations of workers and winged reproductive forms of termites and to prevent infestation for a temporary period. This application is not intended as a substitute for soil treatments.

**General Pest Control - Turfgrasses  
(Golf Courses, Road Medians, And  
Industrial Plant Sites Only)  
(Maximum Use Rate – 2 qt/acre)**

**General Information**

Dursban Pro is an emulsifiable concentrate for use to control pests injurious to turfgrasses on golf courses, road medians, and industrial plant sites only. The pests controlled are listed in the accompanying tables. Dursban Pro 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.

**PPE for Application to Turf**

- Long-sleeved shirt and long pants
- Chemically-resistant gloves and footwear

**Precautions for Turf Use:**

Do not allow entry to treated area until the spray has dried. Keep out of fish pools 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 or use hay for livestock bedding. Chemigation: do not apply this product through any type of irrigation system. It is always recommended that a small jar compatibility test using proper proportions of chemicals and water be run to check for physical compatibility prior to tank mixing.

**Pests of Turfgrass Areas**

Use Dursban Pro to control the pests listed in the following table by application at the recommended dosages. Dilute Dursban Pro in water and apply using suitable application equipment. For best results, turf should be moist at time of treatment.

Restriction: The maximum application rate is 2 qt (1 lb a.i.)/acre.

| Pest   | Amount of Dursban Pro per |      |
|--|---------------------------|------|
|  | 1000 sq. ft.              | Acre |
| Ants   | 1 1/2 fl oz               | 2 qt |
| Armyworms (Such as: Beet, Fall, Yellowstriped)           |                           |      |
| Centipedes   |                           |      |
| Chiggers (1)   |                           |      |
| Chinch bugs  |                           |      |
| Crickets   |                           |      |
| Cutworms   |                           |      |
| Deer ticks (2)   |                           |      |
| Earwigs  |                           |      |
| European crane fly larvae                                |                           |      |
| Fiery skipper  |                           |      |
| Fire ants (foraging workers)                             |                           |      |
| Fire ants (mounds) (3)                                   |                           |      |
| Fleas  |                           |      |
| Billbug adults (Such as: Bluegrass, Denver, Hunting) (6) |                           |      |

**Specific Directions:**

1. Use Dursban Pro for area control of **ticks** and **chiggers** infesting golf courses, road medians, and industrial plant sites where these pests are present and create a nuisance or a possible public health problem. Do not allow public use of treated areas during application or until spray has dried. Apply Dursban Pro insecticide in water at the rate of 1 pint per acre (1/3 fl oz per 1000 sq. ft.) using a hydraulic sprayer, mist applicator, backpack sprayer, or other suitable hand or power operated spray equipment.
2. For control of **deer ticks** apply Dursban Pro in water at the rate of 2 quarts per acre or 1 1/2 fl oz per 1000 square feet. Treat low underbrush, turf, grassy areas, weeds, and ground surface and debris, using enough spray volume to obtain thorough coverage.
3. For individual **fire ant mounds** apply Dursban Pro as a drench. Dilute 2 fl oz per 4 gallons of water. Gently sprinkle 1 to 2 gallons of the diluted insecticide over the surface of each 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.
4. **Mosquitoes** coming to rest on areas treated for control of turf pests will be controlled for varying periods of time after treatment depending on exposure of treated areas to weathering conditions.
5. For **sod webworms**, watering or mowing of the treated area should be delayed for 12 to 24 hours after treatment.
6. For **billbugs**, spray early in the season, just prior to or coinciding with first appearance of adults, as recommended by your local Agricultural Extension Service Specialist.

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### **Warranty Disclaimer**

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Dow AgroSciences 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. Dow AgroSciences 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**

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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 Dow AgroSciences 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 Dow AgroSciences' 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

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences 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 Dow AgroSciences 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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**Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.**

Label Code: D02-092-014  
Replaces Label: D02-092-013

EPA-Accepted 10/26/00

#### **Revisions:**

1. Added "Restricted Use Pesticide" designation.
2. Added language to restrict use areas to non-residential uses.
3. Limited turf application to golf courses, road medians, and industrial plant sites to no greater than 1 lb a.i./acre.
4. Specified Personal Protective Equipment for eye protection as goggles, face shield, or safety glasses with front, brow, and temple protection.

Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, IN 46268-1054



## **MATERIAL SAFETY DATA SHEET**

Dursban\* Pro

62719-166

**Effective Date:** 7-19-04

**Comments:**

Attached is a revised Material Safety Data Sheet.

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# MATERIAL SAFETY DATA SHEET



Emergency Phone: 800-992-5994  
Dow AgroSciences LLC  
Indianapolis, IN 46268

## DURSBAN\* PRO INSECTICIDE

Effective Date: 7/19/04  
Product Code: 46482  
MSDS: 004949

### 1. PRODUCT AND COMPANY IDENTIFICATION:

**PRODUCT:** Dursban\* Pro Insecticide

#### COMPANY IDENTIFICATION:

Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, IN 46268-1189

### 2. COMPOSITION/INFORMATION ON INGREDIENTS:

|   |                  |       |
|---|------------------|-------|
| Chlorpyrifos: {O,O-diethyl-<br>O-(3,5,6-trichloro-2-pyridinyl)<br>phosphorothioate} | CAS# 002921-88-2 | 23.5% |
| Balance, Total, Including:<br>Propylene glycol                                      | CAS# 000057-55-6 | 76.5% |

### 3. HAZARDOUS IDENTIFICATIONS:

#### EMERGENCY OVERVIEW

Light yellow, cloudy liquid. Petroleum odor. Cholinesterase inhibitor. May cause eye irritation. Toxic to avian and aquatic organisms.

**EMERGENCY PHONE NUMBER:** 800-992-5994

### 4. FIRST AID:

**EYES:** Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, and then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

**SKIN:** Immediately wash with plenty of soap and water. Consult medical personnel.

**INGESTION:** Call a physician or Poison Control Center immediately. Do not induce vomiting. Do not put anything into the mouth of an unconscious person.

**INHALATION:** Remove to fresh air and if not breathing give artificial respiration, preferably by mouth to mouth. Consult medical personnel.

**NOTE TO PHYSICIAN:** The decision of whether to induce vomiting or not should be made by an attending physician. If lavage is performed, endotracheal and/or esophageal control is suggested. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. 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. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5. FIRE FIGHTING MEASURES:

**FLASH POINT:** 220°F (104°C)  
**METHOD USED:** SFCC

#### FLAMMABLE LIMITS

LFL: Not determined  
UFL: Not determined

**HAZARDOUS COMBUSTION PRODUCTS:** During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to sulfur oxides, phosphorus compounds, nitrogen oxides, hydrogen chloride, carbon monoxide, and carbon dioxide.

**OTHER FLAMMABILITY INFORMATION:** Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Container may rupture from gas generation in a fire situation.

**EXTINGUISHING MEDIA:** Water fog or fine spray, carbon dioxide, dry chemical or foam. Alcohol resistant foams (ATC type) are preferred if available. General-purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively. Do not use direct water stream it may spread the fire.

**MEDIA TO BE AVOIDED:** Do not use direct water stream.

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**FIREFIGHTING INSTRUCTIONS:** Keep people away. Isolate fire area and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environmental damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Fight fire from protected location or safe distance. Consider use of unmanned hose holder or monitor nozzles. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of re-ignition has passed. Immediately withdraw all personnel from area in case of rising sound from venting safety device or discoloration of the container. Move container from fire area if this is possible without hazard. Contain firewater run-off if possible. Firewater run-off, if not contained may cause environmental damage. Review the "Accidental Release Measures and "Ecological Information" sections of this MSDS.

**PROTECTIVE EQUIPMENT FOR FIREFIGHTERS:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not use, fight fire from a protected location or safe distance.

### 6. ACCIDENTAL RELEASE MEASURES:

**ACTION TO TAKE FOR SPILLS:** Wear long pants, long-sleeved shirt, and impervious rubber gloves when handling concentrate and cleaning up spills. Absorb small spills with an inert absorbent material such as Hazorb, Zorball, sand, or dirt. Scoop contaminated absorbent material into a container. Thoroughly wash body areas that come into contact with this product. Report large spills to Dow AgroSciences at 800-992-5994.

### 7. HANDLING AND STORAGE:

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** See product label. Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapors and spray mist. Handle concentrate in ventilated area. Wash thoroughly with soap and water after handling and before eating, chewing gum, using tobacco, using the toilet or smoking. Keep away from food, feedstuffs, and water supplies. Store in original container with the lid tightly closed. Avoid temperatures above 122°F (50°C).

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where a potential for exposure exists. Emergency conditions may require additional precautions.

#### EXPOSURE GUIDELINE(S):

Chlorpyrifos: ACGIH TLV is 0.1 mg/M<sup>3</sup>, (I, V), A4, Skin, BEI  
Propylene glycol: AIHA WEEL is 10 mg/M<sup>3</sup> to total vapor and aerosol.  
Polyglycol P2000: AIHA WEEL for polypropylene glycols is 10 mg/M<sup>3</sup>.

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

**ENGINEERING CONTROLS:** Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

#### RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

**RESPIRATORY PROTECTION:** Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required use a NIOSH approved air purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration.

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**SKIN PROTECTION:** No precautions other than clean body-covering clothing should be needed.

**EYE/FACE PROTECTION:** Use safety glasses.

**APPLICATORS AND ALL OTHER HANDLERS:** Refer to the product label for personal protective clothing and equipment.

### 9. PHYSICAL AND CHEMICAL PROPERTIES:

**BOILING POINT:** Not determined

**VAPOR PRESSURE:** Not determined

**VAPOR DENSITY:** Not determined

**SOLUBILITY IN WATER:** Emulsifiable

**SPECIFIC GRAVITY:** 1.0271 g/mL @ 19.9°C

**APPEARANCE:** Light yellow, cloudy liquid

**ODOR:** Petroleum odor

**pH:** 4.52 (10.5% dilution in water)

### 10. STABILITY AND REACTIVITY:

**STABILITY:** Unstable at elevated temperatures.

**CONDITIONS TO AVOID:** Avoid temperatures above 122°F (50°C). Chlorpyrifos decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

**HAZARDOUS DECOMPOSITION:** Hazardous decomposition products depend on temperature, air supply, and the presence of other materials. Hazardous decomposition products may include and are not limited to hydrogen chloride, organic sulfides, and sulfur dioxide. Toxic gases are released during decomposition.

**INCOMPATIBLE MATERIALS:** Avoid contact with oxidizing materials, bases, and strong acids.

**HAZARDOUS POLYMERIZATION:** Not known to occur.

### 11. TOXICOLOGICAL INFORMATION:

**POTENTIAL HEALTH EFFECTS:** This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

**EYE:** May cause slight eye irritation. Corneal injury is unlikely.

**SKIN:** Prolonged exposure not likely to cause significant skin irritation. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD<sub>50</sub> for skin absorption in rabbits is >2000 mg/kg.

**INGESTION:** Low toxicity if swallowed. The oral LD<sub>50</sub> for male rats was 623 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.

**INHALATION:** At room temperature, vapors are minimal due to low volatility. Vapor from heated material or mist may be hazardous on single exposure. The LC<sub>50</sub> for rats was 2.6 mg/L (males) and 1.62 mg/L (females) for 4 hours.

#### SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:

Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure to chlorpyrifos may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, and tightness in chest, excessive urination, or convulsions. Chlorpyrifos produced mild adrenal effects when fed to rats, but only at doses that greatly exceeded any exposures that would be received during use of this product.

**CANCER INFORMATION:** Did not cause cancer in laboratory animals.

**TERATOLOGY (BIRTH DEFECTS):** Chlorpyrifos did not cause birth defects in laboratory animals.

**REPRODUCTIVE EFFECTS:** Chlorpyrifos did not interfere with fertility in reproduction studies in laboratory animals. Some evidence of toxicity to the offspring occurred, but only at a dose high enough to produce significant toxicity to the parent animals.

**MUTAGENICITY:** Based on a majority of negative data and some equivocal or marginally positive results, chlorpyrifos is considered to have minimal mutagenic potential.

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## DURSBAN\* PRO INSECTICIDE

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### 12. ECOLOGICAL INFORMATION:

#### ENVIRONMENTAL FATE

#### MOVEMENT & PARTITIONING:

Based largely or completely on information for chlorpyrifos.  
Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).  
Expected to be relatively immobile in soil (Koc >5000).

#### DEGRADATION & PERSISTENCE:

Based largely or completely on information for chlorpyrifos.  
The photolysis half-life in water is 3-4 weeks.  
In the atmospheric environment, material is estimated to have a tropospheric half-life of 1.4 hours.  
Degradation is expected in the soil environment within days to weeks.  
Under aerobic soil conditions the half-life is generally 30-60 days.

#### ECOTOXICOLOGY:

Based largely or completely on information for chlorpyrifos.  
Material is very highly toxic to aquatic organisms on an acute basis (LC<sub>50</sub> or EC<sub>50</sub> <0.1 mg/L in most sensitive species).  
Material is highly toxic to birds on a dietary basis (LC<sub>50</sub> is between 50 and 500 ppm).  
Material is moderately toxic to birds on an acute basis (LD<sub>50</sub> is between 51 and 500 mg/kg).

### 13. DISPOSAL CONSIDERATIONS:

**DISPOSAL METHOD:** If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

### 14. TRANSPORT INFORMATION:

#### U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

For package sizes <4 pounds by road or air transportation:  
This material is not regulated for transport.

For package sizes >4 pounds by road and air transportation:  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S./(CHLORPYRIFOS)/9/UN3082/PGIII/  
RQ (CHLORPYRIFOS)

For package sizes <4 pounds by vessel transportation:  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S./(CHLORPYRIFOS)/9/UN3082/PGIII/  
MARINE POLLUTANT

For package sizes >4 pounds by vessel transportation:  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
LIQUID, N.O.S./(CHLORPYRIFOS)/9/UN3082/PGIII/  
MARINE POLLUTANT/RQ (CHLORPYRIFOS)

### 15. REGULATORY INFORMATION:

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

#### U.S. REGULATIONS

**SARA 313 INFORMATION:** To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

# MATERIAL SAFETY DATA SHEET



Emergency Phone: 800-992-5994  
Dow AgroSciences LLC  
Indianapolis, IN 46268

## DURSBAN\* PRO INSECTICIDE

Effective Date: 7/19/04  
Product Code: 46482  
MSDS: 004949

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard  
A delayed health hazard

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**STATE RIGHT-TO-KNOW:** The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

| <u>CHEMICAL NAME</u> | <u>CAS NUMBER</u> | <u>LIST</u>   |
|----------------------|-------------------|---------------|
| Propylene Glycol     | 000057-55-6       | PA1           |
| Chlorpyrifos         | 002921-88-2       | PA3, NJ3, PA1 |

NJ3=New Jersey Workplace Hazardous Substance (present at > or = to 1.0%).

PA1=Pennsylvania Hazardous Substance (present at > or = to 1.0%).

PA3=Pennsylvania Environmental Hazardous Substance (present at > or = than or equal to 1.0%).

**OSHA HAZARD COMMUNICATION STANDARD:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

| <u>Category</u> | <u>Rating</u> |
|-----------------|---------------|
| Health          | 2             |
| Flammability    | 1             |
| Reactivity      | 1             |

**COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND):** This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA, which may require reporting of releases:

| <u>Chemical Name</u> | <u>CAS Number</u> | <u>RQ</u> | <u>% in Product</u> |
|----------------------|-------------------|-----------|---------------------|
| Chlorpyrifos         | 002921-88-2       | 1         | 23.5%               |

### 16. OTHER INFORMATION:

**MSDS STATUS:** Revised Sections: 3, 4, 5, 8, 11, 13 & 14  
Reference: DR-0348-2335  
Replaces MSDS Dated: 7/13/00  
Document Code: D03-092-003  
Replaces Document Code: D03-092-002

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Dow AgroSciences for Further Information.