

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

NOV 2 3 2005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Michael Kellogg GRO-PRO LLC c/o Pyxis Regulatory Consulting, Inc. 11324 17th Ave. Ct. NW Gig Harbor, WA 98332

Subject:

Alternate Confidential Statements of Formula

Label Amendment: Revision of PPE, Environmental Hazards and

Agricultural Use requirements per acute toxicology review

Chlorpyrifos G-Pro 2 Insecticide

EPA Reg. No. 79676-10

Submission dated June 2, 2005

Dear Mr. Kellogg:

The Agency reviewed the product chemistry and product toxicology data in support of your new Alternate Confidential Statements of Formula numbers 1, 2,3,4 and 5 all dated May 19, 2005 and the following comments apply:

The Confidential Statements of Formula listed above have been accepted provided that you submit acceptable Storage Stability (830.6317) and Corrosion Characteristics (830.6320) data within one year from the date of this letter to support your new formulations

The revised labeling referenced to above, submitted in connection with the registration under the Federal Insecticide, fungicide, and Rodenticide Act (FIFRA) as amended, is accepted with the following comments:

1) For wood infesting termites the following disclaimer must replace the disclaimer on page 6

"This [product] [treatment] will kill workers and /or winged reproductive forms of termites present at the time of application only. Application of this product will not provide structural protection nor substitute for mechanical alteration, soil or foundation treatment with termiticide. This product is not to be used as sole protection against termites, as it is not intended for use for elimination of termite infestations nor for protection against future infestations. A professional inspection is recommended."

2) Based on the acute toxicology profile of this product, revise the Precautionary Statements as follows:

Causes skin irritation and moderate eye irritation. Harmful if swallowed. Do not get on skin or on clothing. Avoid contact with eyes.

3) The wording for the User Safety Recommendations are as follows: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

A stamped copy "accepted with comments" of the label is enclosed for your records.

Please submit two (2) copies of the final printed before shipment. If you have any questions please call me at (703) 308-8328.

Sincerely yours,

Akiya Abramovitch, Ph.D.

Chemist

Insecticide-Rodenticide Branch
Registration Division (7505C)

Registration Division (7505C)

#### RESTRICTED USE PESTICIDE

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

### Chlorpyrifos G-Pro 2 Insecticide

For control of various pests on golf course turf and ornamental plants around industrial sites and road medians, fire ant treatment on nursery stock, and as a non-structural wood treatment.

#### **ACTIVE INGREDIENT:**

Chlorpyrifos (O,O-diethyl O-(3,5,6-trichloro-2-pyridi	inyl) phosphorothioate)	. 24.66%
OTHER INGREDIENTS:	***************************************	. <u>75.34%</u>
TOTAL:	474474474474474444444444444444444444444	100.00%

Contains 2 pounds of chlorpyrifos per gallon.

Contains petroleum distillates.

ACCEPTED with COMMENTS In EPA Letter Dated:

#### KEEP OUT OF REACH OF CHILDREN **AVISO** WARNING

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en understand this label, find someone to explain it to you in detail).

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	FIRST AID
If swallowed:	Immediately call a poison control center or doctor.
	Do not induce vomiting unless told to do so by a poison control center or doctor.
	Do not give any liquid to the person.
	Do not give anything by mouth to an unconscious person.
If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
	Call a poison control center or doctor for treatment advice.
If on skin or	Take off contaminated clothing.
clothing:	Rinse skin immediately with plenty of water for 15-20 minutes.
	Call a poison control center or doctor for treatment advice.
If inhaled:	Move person to fresh air.
•	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
	Call a poison control center or doctor for further treatment advice.
	HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

#### NOTE TO PHYSICIAN

Chlorpyrifos is a cholinesterase inhibitor. Treat symptomatically. Atropine, only by injection, is an antidote. This product is an organophosphorus ester that inhibits cholinesterase. Contains petroleum distillate - vomiting may cause aspiration pneumonia.

See inside label booklet for additional PRECAUTIONARY STATEMENTS

EPA Reg. No. 79676-10

EPA Est. No.

Manufactured for: Gro-Pro, LLC 2214 Hwy 44 West Inverness, FL 34453

Chlorpyrifos G-Pro 2 Insecticide contains chlorpyrifos, the active ingredient used in Dursban®.

**Net Contents:** 

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# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

May be fatal if swallowed. Harmful if absorbed through skin or inhaled. Causes substantial but temporary eye injury. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate and viton. For more information, follow the instructions in Supplement Three of PR Notice 93-7. If you want more options, follow the instructions for category G on an EPA chemical-resistance category selection chart.

All mixers, loaders, other applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant apron when mixing or loading or exposed to the concentrate
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposures
- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any N, R, P, or HE filter.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

#### **Engineering Controls**

When handlers use closed systems or closed cab motorized ground application equipment in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

#### **ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish, aquatic invertebrates, small mammals and birds. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

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 AND 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. 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.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box 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 24 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 made out of any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposures

Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

#### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides [40 CFR Part 170]. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

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

Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

For ground boom applications, do not apply within 25 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries and commercial fish ponds. Apply with nozzle height no more than 4 feet above the ground or crop canopy and when wind speed is 10 mph or less at the application site as measured by an anemometer. Use fine or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles.

The applicator also must use all other measures necessary to control drift.

#### **CHEMIGATION PROHIBITION**

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

#### GENERAL PEST CONTROL - EXTERIOR SURFACE AND PERIMETER TREATMENTS

#### Perimeter Treatment Applications:

Chlorpyrifos G-Pro 2 Insecticide is intended to be mixed with water and applied outdoors with pressurized sprayers as a general surface spray.

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#### **Precautions for Perimeter Treatments:**

- Do not feed treated grass cuttings (hay) or seed screenings to livestock, or use treated hay for livestock bedding.
- Keep out of fish pools and other bodies of water.
- Do not treat vegetable gardens.
- Do not allow livestock to graze in treated areas.

#### **Treatment Sites:**

When used according to label directions, Chlorpyrifos G-Pro 2 Insecticide may be applied around localized exterior surfaces and as a soil applied perimeter treatment of industrial plant sites, manufacturing plants, food processing plants and warehouses.

**Note:** Phytotoxicity – Environmental factors and varietal differences may affect phytotoxic expression. In situations where phytotoxicity potential is of concern, spray a small group of plants and observe them for 7 to 10 days to determine phytotoxic potential before treating large numbers of those plants.

#### **Application Rates:**

Depending on the pest species and application method, applications of 0.03% to 0.5% Chlorpyrifos G-Pro 2 Insecticide can be made. Refer to the "Application Methods" section of this label for additional information.

#### **Mixing Directions:**

To make a 0.03% water based spray, add 1 2/3 fl. oz. Chlorpyrifos G-Pro 2 Insecticide per 10 gallons of spray. To make a 0.5% water based spray, add 2 2/3 fl. oz. Chlorpyrifos G-Pro 2 Insecticide per each gallon of spray.

A stable emulsion of Chlorpyrifos G-Pro 2 Insecticide can be formed by first adding approximately one-half the water to the spray tank followed by adding the proper amount of Chlorpyrifos G-Pro 2 Insecticide. Close the tank and agitate for 5 to 10 seconds. Add the remaining water slowly to avoid excess foaming.

#### Tank Mixing:

Unless prohibited by a product's label, tank mix combinations can be used with pesticides labeled for similar use patterns. Always perform a small jar compatibility test using proper proportions of chemicals and water 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 outdoors as a general surface spray. Treat where pests are found or normally occur.

#### Low Volume Directed Sprays:

Low volume, high concentration sprays (0.5%) to localized exterior surfaces can quickly reduce localized heavy pest infestations on outside surfaces. Use a low pressure system with a pinpoint or variable pattern nozzle, such as a 1-gallon hand pump sprayer, and apply the spray mixture to specific areas such as cracks and crevices along walkways, patios, under eaves, windows and door frames or other areas where insects may congregate or can gain entrance to the structure.

#### **High Volume Broadcast Sprays:**

High volume, low concentration perimeter sprays (0.03% - 0.12%), such as with power spraying equipment, can help prevent infestation of buildings by reducing pests in outdoor areas. Higher rates will provide longer residual control. To make a 0.03% water based spray, mix 8 fl. oz. of Chlorpyrifos G-Pro 2 Insecticide per 50 gallons. To make a 0.12% dilution, mix 32 fl. oz. of Chlorpyrifos G-Pro 2 Insecticide

per 50 gallons of water. This type of treatment provides more thorough coverage over large areas than low volume directed sprays. Apply spray mixture directly to areas such as junctions of soil and structural walls and along base of fences. To help prevent infestation of buildings, treat a band of soil 6 to 10 feet wide around and adjacent to buildings, also treat the building foundation to a height of 2 to 3 feet, where pests are active and may find entrance. Apply as a coarse spray at the rate of about 7 gallons spray mixture per 1,000 sq. ft. Thoroughly and uniformly wet the treated area.

#### Pests Controlled by Perimeter Treatments of Chlorpyrifos G-Pro 2 Insecticide:

Ants Elm leaf beetles (adults) Fire ants1 Bees Beetles Fleas Boxelder bugs (or other true bugs) Flies Carpenter ants Hornets Centipedes Millipedes Clover mites Pillbugs Cockroaches Scorpions<sup>2</sup> (American) Sowbugs (Asian) Spiders (Brownbanded) Springtails (German) Ticks (Oriental) Wasps (Smokybrown) Yellowjackets Crickets Other outdoor insects

<sup>1</sup>Fire ant mounds may be controlled by applying Chlorpyrifos G-Pro 2 Insecticide as a drench. Dilute 2 fl. oz. of Chlorpyrifos G-Pro 2 Insecticide 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°F 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.

<sup>2</sup>To control scorpions, remove accumulations of lumber, firewood and other materials serving as harborage sites. Prior to stacking firewood or lumber, apply Chlorpyrifos G-Pro 2 Insecticide as a localized spray to surfaces immediately below such materials.

#### GENERAL CONTROL OF WOOD-INFESTING INSECTS

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

Mix Chlorpyrifos G-Pro 2 Insecticide with water and apply as a general surface or localized injection treatment with pressurized sprayers or other equipment suitable for applying insecticides to localized areas.

#### **Treatment Sites:**

**Earwigs** 

When used according to label directions, Chlorpyrifos G-Pro 2 Insecticide can be applied to non-residential outdoor areas for control of wood-infesting insects. Chlorpyrifos G-Pro 2 Insecticide may be applied to:

Fence posts

Pallets

Utility poles

Wooden containers

Railroad ties

Poles

Landscape timbers

Posts

Logs

Processed wood products

#### **Application Rates:**

Depending on the pest species and application method, applications of up to 0.5% Chlorpyrifos G-Pro 2 Insecticide can be made. Increased residual control can be expected at higher rates. Refer to the "Specific Use Directions for Control of Wood-Infesting Insects" section of this label for additional information.

#### **Mixing Directions:**

To make a 0.5% water based spray, add 2 2/3 fl. oz. Chlorpyrifos G-Pro 2 Insecticide per each gallon of spray mixture. To mix, add approximately one-half the required amount of water to the spray tank followed by the proper amount of Chlorpyrifos G-Pro 2 Insecticide. Close the tank and shake vigorously for 5 to 10 seconds. Slowly add the remaining water.

#### Tank Mixing:

Unless prohibited by a product's label, tank mix combinations can be used with pesticides labeled for similar use patterns. Always perform a small jar compatibility test using proper proportions of chemicals and water 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. Use equipment capable of delivering a coarse, low-pressure (approximately 20 psi) spray for treatment of large or overhead areas. Use sufficient spray to cover the area to the point of wetness but avoid applying to the point of runoff.

#### Wood-Infesting Insects Controlled by Chlorpyrifos G-Pro 2 Insecticide:

Beetles (including Anobiidae, Bostrichidae, Cerambycidae, and Lyctidae) Carpenter ants and other wood-infesting ants Carpenter bees Termites

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

Beetles – 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 the appropriate rates of application:

- New Wood (typically less than 10 years of age) Apply 1 gallon of dilution per 150 sq. ft.
- Old Wood (typically greater than 10 years of age) Apply 1 gallon of dilution per 100 sq. ft.

Wood-Infesting Ants — Wood-infesting ants may be controlled by applying spray mixture around cracks or crevices, doors and windows, or other areas where ants may enter, crawl, or hide on the exterior of industrial plants, manufacturing plants, food processing plants and warehouses. Primary colonies are typically found outside through an exterior inspection. Landscape modifications or correction of sanitation and structural deficiencies may be necessary for effective control.

Termites – Treat termites by applying spray mixture to infested areas, or areas where infestations are likely to occur. 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**

#### Golf Course Turf, Turf and Ornamentals in Industrial Plant Sites and Road Medians

Chlorpyrifos G-Pro 2 Insecticide may be used to control injurious pests to 1) golf course turf and 2) turf and ornamentals in industrial plant sites and road medians that are not used for human or livestock consumption. Chlorpyrifos G-Pro 2 Insecticide is compatible with commonly recommended insecticides, miticides and fungicides 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.

## Precautions for Golf Course Turf, Ornamentals found in Nurseries, Road Medians and Industrial Plant Sites:

- Do not treat vegetable gardens.
- Do not allow livestock to graze in treated areas.
- Keep out of fish pools and other bodies of water.
- Do not feed treated grass cuttings (hay) or seed screenings to livestock or use hay for livestock bedding.
- Do not apply more than 1 lb. a.i./acre.
- 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.

#### Turf in Golf Courses, Industrial Plant Sites, and Road Medians (Not for use in California):

Use Chlorpyrifos G-Pro 2 Insecticide to control the pests listed in the following table. Dilute Chlorpyrifos G-Pro 2 Insecticide in water and apply using suitable application equipment. Turf should be moist at the time of treatment.

PEST	Amount of Chlorpyrifos G-Pro 2 Insecticide per	
	1,000 sq. ft.	Acre
Ants	1 ½ fl. oz.	2 qts.
Armyworms (such as Beet, Fall, Yellowstriped)		
Centipedes		
Chiggers <sup>1</sup>		
Chinch bugs		
Crickets		
Cutworms	i	
Deer ticks <sup>2</sup>	1	
Earwigs		
European crane fly larvae		
Fiery skipper		
Fire ants (foraging workers)		
Fire ants (mounds) <sup>3</sup>		
Fleas		
Gnats		
Grasshoppers		
Greenbug aphids		
Green June beetle grubs		
Leafhoppers		
Lucerne moth		
Millipedes		
Mites (such as Bermudagrass stunt, Clover, Winter		
grain)		
Pillbugs		
Sod webworms (lawn moths) <sup>4</sup>		
Sowbugs		
Ticks <sup>1</sup>		
Billbug adults (such as: Bluegrass, Denver, Hunting) <sup>5</sup>	1 ½ fl. oz.	2 qts.
Annual bluegrass weevil (Hyperodes) <sup>6</sup>	1 ½ fl. oz.	2 qts.

Black turfgrass ataenius adults <sup>7</sup> Mole crickets <sup>8</sup>		
Mole crickets <sup>9</sup>	1 ½ fl. oz.	2 qts.
White grubs (such as: Black turfgrass ataenius, European chafer, Japanese beetle larvae, and Northern and Southern masked chafers) <sup>10</sup>	1 ½ fl. oz.	· 2 qts.

#### **Specific Directions:**

<sup>1</sup>Use Chlorpyrifos G-Pro 2 Insecticide for area control of ticks and chiggers infesting non-cropland areas such as golf course turf and grassy 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 Chlorpyrifos G-Pro 2 Insecticide in water at the rate of 1 pint per acre (1/3 fl. oz. per 1,000 sq. ft.) using a hydraulic sprayer, mist applicator, backpack sprayer, or other suitable hand or power operated spray equipment.

<sup>2</sup>Apply Chlorpyrifos G-Pro 2 Insecticide at the rate of 2 quarts per acre or 1 ½ fl. oz. per 1,000 sq. ft. for control of deer ticks. Treat turf, grassy areas, low underbrush, weeds, ground surface and debris using enough spray volume to obtain thorough coverage.

<sup>3</sup>Apply Chlorpyrifos G-Pro 2 Insecticide as a drench for individual fire ant mounds. 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. Apply in cool weather (65°F -80°F), or in early morning or late evening hours. Treat new mounds as they appear. Pressurized sprays may disturb the ants causing migration and reducing effectiveness of the product.

<sup>4</sup>For sod webworms, watering or mowing of the treated area should be delayed for 12 to 24 hours after treatment.

<sup>5</sup>Spray early in the season just prior to, or coinciding with first appearance of adult billbugs as recommended by your local Agricultural Extension Service specialist.

<sup>6</sup>For control of annual bluegrass weevil, spray suspected problem areas in mid-April and again in mid-May, or as recommended by your local Agricultural Extension Service specialist.

<sup>7</sup>For black turfgrass ataenius adults, spray early in the season as recommended by your local Agricultural Extension Service specialist. A repeat application may be needed 1 to 2 weeks later.

<sup>8</sup>For control of mole crickets in turfgrass, apply Chlorpyrifos G-Pro 2 Insecticide through high-pressure injection or other suitable subsurface placement application equipment. Follow the manufacturer's recommendation for calibration and the volume of spray per acre needed to provide control or as recommended by your local Agricultural Extension Service specialist. Apply when young nymphs are active.

For control of mole crickets in turfgrass, apply Chlorpyrifos G-Pro 2 Insecticide using broadcast or suitable hand-held application equipment. Make application in a minimum of 50 gallons of water per acre. Golf course turf must be irrigated within 24 hours after treatment to wash the insecticide into the area of insect activity. Apply when early stage nymphs are active. Effectiveness may be enhanced by spraying late in the afternoon or early evening and irrigating the turf within 24 hours prior to and following application to move mole crickets near the soil surface and wash the insecticide into the zone of insect activity.

<sup>10</sup>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. Soil should be moist prior to treatment. Immediately after spraying, irrigate the treated areas with ½ to 1 inch of water to wash the insecticide deep into the thatch or underlying soil.

ORNAMENTALS (For industrial plant site and road median use only): Chlorpyrifos G-Pro 2 Insecticide may be used to treat evergreens, flowers, shrubs, vines, shade and flowering trees infested

with the types of pests listed in the following tables. Dilute Chlorpyrifos G-Pro 2 Insecticide with water according to directions given in the tables and apply using suitable hand or power-operated spray equipment. Ensure complete and uniform coverage. Uniform coverage is critical for effective insect and mite control. Attempt to penetrate dense foliage but avoid over-spraying to the point of excessive runoff.

Consult your State Agricultural Experiment Station or Extension Service specialist for application timing and other specific use information for your area.

Note: Phytotoxicity – Environmental factors and varietal differences may affect phytotoxic expression. Where phytotoxicity potential is of concern, treat a small group of plants and observe for 7 to 10 days to determine phytotoxic potential before treating large numbers of those plants.

Ornamentals in Nurseries: Chlorpyrifos G-Pro 2 Insecticide may be used to treat non-bearing nursery stock infested with the types of pests listed in the following tables. Dilute Chlorpyrifos G-Pro 2 Insecticide with water according to directions given in the tables and apply using suitable hand or power-operated spray equipment. Ensure uniform and complete coverage. Uniform coverage is critical for effective insect and mite control. Attempt to penetrate dense foliage but avoid over-spraying to the point of excessive runoff.

#### SUCKING INSECTS AND MITES

Do not exceed 1 lb. ai/acre.

PEST	Amount of Chlorpyrifos G-Pro 2 Insecticide	
	per 1 Gallon	100 Gallons
Adelgids (such as: Cooley and Eastern spruce galls, Pine bark)  Aphids (such as: Apple, Balsam twig, Black pecan, Chrysanthemum, Cottonwood, Crape myrtle, Elm leaf, Melon, Peach, Rose, Spirea, White pine, Woolly, Woolly apple, Yellow pecan)  Boxelder bugs  Lace bugs (such as: Hawthorn)  Periodical cicada  Plant bugs  Psyllids  Spittlebugs  Thornbug  Whiteflies	1/6-1/3 fl. oz.	1 pt1 qt.
Leafhoppers Mealybugs (such as: Citrus, Taxus) Mites (such as: Clover, Red spider, Southern Red, Spruce spider, Two spotted spider) Thrips (exposed)	1/3 fl. oz.	1 qt.
Scale insects (such as: Cottony cushion, Cottony maple, Dearness, Euonymus, Fletcher, Florida wax, Golden oak, Hemispherical, Lecanium, Magnolia, Oak kermes, Oak lecanium, Oystershell, Pine needle, San Jose, Tea, White birch) <sup>2</sup>	2/3 fl. oz.	2 qts.

#### **Specific Directions:**

<sup>1</sup>For effective control of spider mites when large numbers of eggs are present, apply a second spray 3 to 5 days in the South or 7 to 10 days in the North after initial treatment to control newly hatched nymphs.

<sup>2</sup>Time application for control of scale insects when crawlers or first two stages of settled nymphs are present.

### **DEFOLIATORS AND LEAFMINERS**

PEST	Amount of Chlorpyrifos G-Pro 2 Insecticide per	
	1 Gallon	100 Gallons
Armyworms (such as: Fall, Yellowstriped) Bagworms Cankerworms	1/6-1/3 fl. oz.	1 pt1 qt.
Catalpa sphinx Elm spanworms Fall webworms <sup>2</sup>		
Grasshoppers Greenstriped mapleworms Green fruitworms		,
Hornworms Jackpine budworms Juniper webworms		
Katydids Leafrollers <sup>3</sup> Maple leafcutters <sup>4</sup>		
Oak skeletonizers Oleander caterpillars Orange tortrix		
Poplar tentmaker Puss caterpillars		
Rose chafers Sawflies, exposed (such as: European pine, Pine, Pin oak, Redheaded)		
Spring elm caterpillars Springtails Spruce budworms (such as: Eastern, Western)		
Tent caterpillars (such as: Eastern, Forest, Western) Walnut caterpillars		
Yellownecked caterpillars  Balsam gall midge Beet armyworms	1/3-2/3 fl. oz.	1-2 qts.
Beetles (such as: Fuller rose) <sup>5</sup> Browntail moth Cutworms		
Cypress tip moth Douglas-fir tussock moth		
European pine shoot moth Gypsy moth <sup>6</sup> Holly bud moth		
Mahogany webworms Mimosa webworms Nantucket pine tip moth		
Oakworms (such as: California, Orangestriped, Redhumped)		

PEST	Amount of Chlorpyrifos G-Pro 2 Insecticide per	
	1 Gallon	100 Gallons
Pandora moth		
Pitch pine tip moth		İ
Redhumped caterpillars		
Subtropical pine tip moth		
Tussock moth		
Beetles (such as: Cottonwood leaf', Elm leaf, Flea,	1/3-2/3 fl. oz.	1-2 qts.
Willow leaf)		
Leafminers	2/3 fl. oz.	2 qts.
Needleminers (such as: Jeffrey pine, Lodgepole pine,		
Spruce)		
Pine needle midge		
Rhododendron gall midge		

#### **Specific Directions:**

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<sup>4</sup>For maple leafcutter on maple trees, apply spray to larvae as cases are being formed. Do not treat sugar maple trees intended for maple syrup production.

<sup>5</sup>Make applications in the spring or early summer to reduce foliar feeding on twigs and branches by beetles.

<sup>6</sup>To control migrating and invading gypsy moth larvae, treat trunks and foliage.

<sup>7</sup>For cottonwood leaf beetles, spray larvae and adults infesting cottonwoods. Applications should be made when damaging beetle populations are developing or present.

#### BORERS, BARK BEETLES, and WEEVILS

PEST	Amount of Chlorpyrifos G-Pro 2 Insecticide	
	1 Gallon	100 Gallons
Weevils (such as: Black vine <sup>1</sup> , Cranberry girdler <sup>2</sup> , Pine reproduction, Yellow poplar)	1/3 fl. oz.	1 qt.
Borers: Clearwing moths (such as: Ash, Dogwood, Lesser peachtree, Lilac, Oak, Peachtree, Rhododendron) Longhorned beetles (such as: Cottonwood, Locust, Red oak) Metallic wood (such as: Bronze birch, Flatheaded appletree, Twolined chestnut) <sup>3</sup> Pales weevil adults Zimmerman pine moth	2/3 fl. oz.	2 qts.
Northern pine weevil <sup>4</sup> Pales weevil <sup>4</sup>	2 fl. oz.	6 qts.
Beetles <sup>5</sup> (such as: Ambrosia, Anobiidae, Black turpentine, Blister, Cottonwood leaf, Elm leaf, European elm bark, Fuller rose, Japanese, June, Mountain pine, Native elm bark <sup>6</sup> , Southern pine,	5 1/3 fl. oz.	4 gals.

<sup>&</sup>lt;sup>1</sup>For bagworms, treat when larvae are small and actively feeding.

<sup>&</sup>lt;sup>2</sup>Direct spray into web and immediately surrounding foliage for effective control of fall webworms.

<sup>&</sup>lt;sup>3</sup>For effective control of leafrollers, apply spray before leaves are tightly rolled.

PEST	Amount of Chlorpyrifos G-Pro 2 Insecticide per	
	1 Gallon	100 Gallons
Spruce, Western pine, Willow leaf)		
Weevils (such as: Northern pine, Pitch eating, Twig)	10 2/3 fl. oz.	8 gals.

#### **Specific Directions:**

<sup>1</sup>Black vine weevils are night feeders. Late afternoon spraying will maximize control.

<sup>2</sup>For cranberry girdler larvae infesting Douglas fir seedlings, direct spray at lower crown and stems following egg laying during summer and irrigate immediately after application to move the insecticide into the top 1 to 2 inches of soil.

<sup>3</sup>For borers, spray trunks and lower limbs of trees and shrubs when adults begin to emerge. For peachtree borers, spray flowering trees and shrubs of the genus *Prunus* as a trunk spray before newly-hatched larvae enter the trees and thoroughly wet all bark areas from ground level to scaffold limbs. Pheromone traps may aid in detection of adult clearwing moths. Consult your State Agricultural Experiment Station or Extension Service specialist for proper time to treat for your area.

<sup>4</sup>Apply as a cut stump spray or drench in winter or early spring for control of northern pine and pales weevil larvae.

<sup>5</sup>For preventative treatment, spray the main trunk of trees in the early spring or when threat of attack exists from nearby infested trees. For remedial treatment, spray the main trunk of infested trees or logs before adult beetles begin to emerge.

<sup>6</sup>To prevent native elm bark beetles from over-wintering in uninfested trees, apply using a dilution of 2 gallons per 100 gallons of water (2 2/3 fl. oz. Chlorpyrifos G-Pro 2 Insecticide per gallon) as a spray to the bottom 9 feet of trunk. Wet the trunk thoroughly but do not spray to runoff. Apply the spray to the base of the root flare. Applications can be made from spring to early fall. To reduce twig and branch feeding on trees deemed to be of high value, apply as a spray to the tree crown using a dilution of 2 gallons per 100 gallons of water (2 2/3 fl. oz. Chlorpyrifos G-Pro 2 Insecticide per gallon). Make applications in the spring or early summer using a sprayer that will give thorough coverage to the tree crown.

<sup>7</sup>For pine seedlings, treat immediately after transplanting. Treat each seedling with enough spray to thoroughly wet the foliage and stem to the point of runoff.

#### ANTS, TERMITES, and MISCELLANEOUS PESTS

PEST	Amount of Chlorpyrifos G-Pro 2 Insecticide per	
	1 Gallon	100 Gallons
Ants	1/3 fl. oz.	1 qt.
Cockroaches (such as: American, Asian,		
Brownbanded, German, Oriental, Smokybrown,		
Wood)		
Fire ants (foraging workers)		
Fire ants (mounds) <sup>1</sup>		
Sowbugs		
Springtails		
Carpenter ants <sup>2</sup>	5 1/3 fl. oz.	4 gals.
Termites		

#### **Specific Directions:**

<sup>1</sup>For individual fire ant mounds, apply Chlorpyrifos G-Pro 2 Insecticide as a drench. Dilute 2 fl. oz. of Chlorpyrifos G-Pro 2 Insecticide in 4 gallons of water. Sprinkle 1 to 2 gallons of the diluted insecticide over the surface of each mound and surrounding areas to a 2-foot diameter circle. Apply in cool weather (65°F -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 effectiveness of the product.

<sup>2</sup>If possible, locate carpenter ant nests and drench thoroughly.

#### Imported Fire Ant:

Treatment of potted, containerized and balled burlapped nursery stock: Use Chlorpyrifos G-Pro 2 Insecticide to control imported fire ants in soil attached to roots of these plants by completely submerging the ball of soil in a tank containing Chlorpyrifos G-Pro 2 Insecticide diluted at the rate of 8 fl. oz. per 100 gallons of water. Do not remove the burlap wrap or plastic containers with drain holes prior to submerging. Keep soil submerged until complete saturation has occurred, normally about 30 seconds. An alternate treatment to submerging potted plants is to apply a solution containing Chlorpyrifos G-Pro 2 Insecticide (8 fl. oz. per 100 gallons of water) as a substitute for plain water during routine watering activities. Apply this solution to the point of run-off, twice daily for three consecutive days. Do not remove the burlap wrap or container from plants prior to treatment. Make applications in a well-ventilated area.

#### **ORNAMENTALS** (Dormant Spray of Tree Pests):

Apply Chlorpyrifos G-Pro 2 Insecticide as a dormant or delayed dormant spray at the rates indicated to control the listed insects. Chlorpyrifos G-Pro 2 Insecticide may be used without oil; however, oil is recommended to control additional pests such as European red mites.

For high volume (dilute) sprays (200 to 600 gallons of spray mixture per acre), tank mix the specified dosage with 1 to 2 gallons of a petroleum spray oil recommended for dormant use in 100 gallons of water. Spray the entire tree to runoff using suitable ground spray equipment.

For low volume (concentrate) sprays (less than 200 gallons of spray mixture per acre), use the same amount of Chlorpyrifos G-Pro 2 Insecticide as for a dilute spray and apply in a manner that will ensure thorough coverage of the trees. Use oil as recommended by your State Agricultural Experiment Station or Extension Service specialist.

Precautions: Do not apply until rain or irrigation have replenished soil moisture such that bark and twigs are not desiccated since cold dry conditions may cause Chlorpyrifos G-Pro 2 Insecticide plus oil to infuse trees resulting in bud damage or drop.

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

PEST	Amount of Chlorpyrifos G-Pro 2 Insecticide per	
	1 Gallon	100 Gallons
Aphids (such as: Mealy plum, Rosy apple, Woolly apple)	1/6-1/3 fl. oz.	1 pt1 qt.
Borers (such as: Peach twig)		
Cutworms (such as: Climbing)	1	
Leafrollers (such as: Obliquebanded, Pandemis)		
Pear psylla adults		
Scale insects (such as: San Jose)		

#### STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in original container in a secured dry storage area. Do not store above 122°F for extended periods of time. Preferred storage is above 32°F. Storage below 32°F may result in solidification. If warmed to above 32°F, product will return to original form. Freezing does not adversely affect this product. Dilutions of Chlorpyrifos G-Pro 2 Insecticide are sensitive to crystal formations when exposed to freezing, or near freezing temperatures (i.e., temperatures below 35°F, for extended periods of time). Dilutions allowed to stand overnight should be stored at temperatures above 40°F

**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 incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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