



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

February 7, 2024

Jacob S. Moore
U.S. Registration Leader
ADAMA Makhteshim Ltd.
c/o Makhteshim Agan of North America, Inc. (d/b/a ADAMA)
8601 Six Forks Road, Suite 300
Raleigh, NC 27615

Subject: Label Amendment – Implementing Chlorpyrifos Biological Opinion (BiOp)
Mitigation and General Updates
Product Name: CHLORPYRIFOS 4E AG
EPA Registration Number: 66222-19
Application Date: April 29, 2022 and September 8, 2022
Decision Number: 591650 and 591651

Dear Jacob Moore:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the Chlorpyrifos 2022 Biological Opinion and has concluded that your submission is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. The next label printing of this product must use this labeling unless subsequent changes have been approved. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of

statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Briana Hanlon at (202) 566-2716 or at hanlon.briana@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'M. Walsh', with a stylized flourish at the end.

Michael Walsh
Product Manager 11
Invertebrate & Vertebrate Branch 2
Registration Division
Office of Pesticide Programs

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.

CHLORPYRIFOS**GROUP****1B****INSECTICIDE**

CHLORPYRIFOS 4E AG

For control of listed insects infesting certain non-food crop areas.

ACTIVE INGREDIENT**% BY WT.**

Chlorpyrifos: 0,0-diethyl-0-(3,5,6-trichloro-2-pyridinyl) phosphorothioate 42.5%

INERT INGREDIENTS*: 57.5%

TOTAL 100.0%

Contains 4 pounds of chlorpyrifos per gallon

* Contains petroleum distillates

Contains chlorpyrifos, the active ingredient used in Lorsban® 4E.

Chlorpyrifos 4E AG is not manufactured or distributed by Dow AgroSciences LLC.

EPA Reg. No. 66222-19

EPA Est. No. [REDACTED]

Manufactured for:

Makhteshim Agan of North America, Inc. (d.b.a. ADAMA)

8601 Six Forks Road, Suite 300, Raleigh, NC 27615

How can we help? 1-866-406- 6262

NET CONTENTS: 2.5 GALLONS

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

FIRST AID**Organophosphate**

IF SWALLOWED:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• DO NOT give any liquid to a person.• DO NOT induce vomiting unless told to do so by a poison control center or doctor.• DO NOT give anything by mouth to an unconscious person.
IF IN EYES:	<ul style="list-style-type: none">• 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 CLOTHING:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15-20 minutes.• Call a poison control center or doctor for treatment advice.
IF INHALED:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.• Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For medical emergencies involving this product, call 1-877-250-9291.

Note to Physician: This product contains an organophosphate that inhibits cholinesterase. 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. Contains petroleum distillate. Vomiting may induce aspiration pneumonia.

In case of spills, fire, leaks or accidents call 1-800-535-5053.

[Optional Text: For additional Precautionary Statements, handling, Directions for Use, (and Storage and Disposal), see inside of this booklet.]

PRECAUTIONARY STATEMENTS**ACCEPTED****02/07/2024**

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 66222-19

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

May be fatal if swallowed. Causes substantial but temporary eye injury. Causes skin irritation. Harmful if absorbed through skin. Wear protective eyewear (goggles, face shield, or safety glasses), protective clothing, and gloves. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below.

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

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or Viton \geq 14 mils
- Chemical-resistant apron when mixing or loading or exposed to the concentrate
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- A minimum of a NIOSH approved particulate respirator, with any R or P filter with NIOSH approval number prefix TC-84A. ; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C

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

ENGINEERING CONTROLS

When handlers use closed systems or closed cab motorized ground application equipment in a manner that meets the requirements listed in 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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.
- 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 may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** contaminate water when disposing of equipment washwater or rinseate.

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. Protective information may be obtained from your cooperative agricultural extension service.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. **DO NOT** use or store near heat or open flame.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

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. For any requirements specific to your State or Tribe, consult the Agency responsible for pesticide regulation. Read all Directions for Use carefully before applying.

Endangered Species Protection Requirements:

It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

Water Protection Statements:

- **DO NOT** apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, wetlands or natural ponds, estuaries, and commercial fish farm ponds).
- **DO NOT** apply directly to, or allow the product to enter sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- **DO NOT** apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios except as a spot or crack-and-crevice treatment.
- **DO NOT** apply to vertical surfaces directly above pervious or impervious surfaces that drain into ditches, storm drains, gutters, or surface waters.
- **DO NOT** apply or irrigate to the point of runoff.

Reporting Ecological Incidents: To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-866-406- 6262

AGRICULTURAL USE REQUIREMENTS

Use this product 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) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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 of barrier laminate or Viton \geq 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical resistant headgear for overhead exposure

Certified crop advisors or persons entering under their direct supervision under certain circumstances may be exempt from the early reentry requirement pursuant to 40 CFR Part 170.

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 (40CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep children, pets, and other unprotected persons out of treated area until sprays have dried.

USE INFORMATION

Chlorpyrifos 4E AG insecticide forms an emulsion when diluted with water and is suitable for use in all conventional spray equipment. Consult your State Experiment Station or State Extension Service for proper timing of applications.

When an adjuvant is to be used with this product, ADAMA suggests the use of a Chemical Producers and Distributors Association certified adjuvant.

USE PRECAUTIONS

DO NOT formulate this product into other end use products without written permission of ADAMA. **Attention: DO NOT** cut or weld container.

RESISTANCE MANAGEMENT

For resistance management, Chlorpyrifos 4E AG contains a Group 1B insecticide. Any insect population may contain individuals naturally resistant to Chlorpyrifos 4E AG and other Group 1B insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of Chlorpyrifos 4E AG or other Group 1B insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. **Do not** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues for the targeted pests between the individual components of a mixture.

In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):

- Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
- Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
- When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
- Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
- The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact ADAMA at (866) 406-6262.

SPRAY DRIFT

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.

- For aerial applications, **DO NOT** apply within 150 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries, and commercial fish ponds. The boom width must not exceed 75% of the wingspan or 90% of the rotary blade. Use upwind swath displacement and apply only when wind speed is 3-10 mph as measured by an anemometer. Use fine or coarser spray according to ASAE 572 definition for standard nozzles or VMD for spinning atomizer nozzles. If application includes a no-spray zone, **DO NOT** release spray at a height greater than 10 feet above the ground or the crop canopy.
- For overhead chemigation, **DO NOT** apply within 25 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries, and commercial fish ponds. Apply only when wind speed is 10 mph or less.

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

SPRAY DRIFT MANAGEMENT

The buffer distances specified in the below table are the distances in feet that must exist to separate sensitive sites from the targeted application site. Buffers are measured from the edge of the sensitive site to the edge of the application site.

Sensitive sites are areas frequented by non-occupational bystanders (especially children). These include residential lawns, pedestrian sidewalks, outdoor recreational areas such as school grounds, athletic fields, parks and all property associated with buildings occupied by humans for residential or commercial purposes. Sensitive sites include homes, farmworker housing, or other residential buildings, schools, daycare centers, nursing homes, and hospitals. Non-residential agricultural buildings, including barns, livestock facilities, sheds, and outhouses are not included in this prohibition.

Application rate (lb ai/A)	Nozzle Droplet Type	Required Setback (Buffer Zones) (feet)		
		Aerial	Airblast	Ground
> 0.5 - 1	Coarse or very coarse	10	10	10
> 0.5 - 1	Medium	25	10	10
> 1 - 2	Coarse or very coarse	50	10	10
> 1 - 2	Medium	80	10	10
> 2 - 3	Coarse or very coarse	80	10	10
> 2 - 3	Medium	100	10	10
> 3 - 4	Medium or coarse	NA ¹	25	10
> 4	Medium or coarse	NA	50	10

¹NA is not allowed.

Only pesticide handlers are permitted in the setback area during application of this product. **DO NOT** apply this product if anyone other than a mixer, loader, or applicator, is in the setback area. Exception: Vehicles and persons riding bicycles that are passing through the setback area on public or private roadways are permitted.

SPRAY MIX DIRECTIONS

To prepare the spray, add a portion of the required amount of water to the spray tank and with agitation, add the Chlorpyrifos 4E AG. Complete filling the tank with the balance of water needed. Maintain sufficient agitation during both mixing and application to ensure uniformity of the spray mixture.

Chlorpyrifos 4E AG may also be used in tank mixtures with certain herbicides and/or with non-pressure fertilizer solutions as recommended under specific crop use directions. Prepare tank mixtures in the same manner as recommended above for use of Chlorpyrifos 4E AG alone. When tank mixtures of Chlorpyrifos 4E AG and herbicides are involved, add wettable powders first, flowables second, and emulsifiable concentrates last. Where a fertilizer solution is involved, it is strongly recommended that a fertilizer pesticide compatibility agent such as Unite or Complex be used. Maintain constant agitation during both mixing and application to ensure uniformity of the spray mixture. **DO NOT** allow spray mixtures to stand overnight. **DO NOT** tank mix this product with products containing dichlorvos (DDVP).

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Note: Test compatibility of the intended tank mixture before adding Chlorpyrifos 4E AG to the spray or tank mix. Add proportionate amounts of each ingredient to a pint or quart jar, cap, shake, and let set 15 minutes. Formation of precipitates that **DO NOT** readily redisperse indicates an incompatible mixture that should not be used.

SPRINKLER USE DIRECTIONS

The following use directions are to be followed when Chlorpyrifos 4E AG is applied through sprinkler irrigation systems. Thoroughly clean the injection system and tank of any fertilizer or chemical residues, and dispose of the residues according to state and federal laws. Flush the injector with soap and water. Determine the amount of insecticide needed to cover the desired acreage. Pump the required Chlorpyrifos 4E AG into a steel tank, start mechanical or hydraulic agitation, and add in order the non-emulsifiable oil and/or water. Continually agitate the mixture containing Chlorpyrifos 4E AG. Set the sprinkler system to deliver the desired inches of water per acre. Start the water pump and sprinkler, and let the system achieve the desired pressure and speed before starting the injector. Start the injector and calibrate the injector system according to number 14 in **SPECIAL USE PRECAUTIONS** section. The mixture containing Chlorpyrifos 4E AG must be injected continuously and uniformly into the irrigation water line as the sprinkler is moving. This procedure is necessary to deliver the desired rate per acre in a uniform manner. When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

SPRINKLER USE PRECAUTIONS

The following use precautions will result in a safe and successful application of mixture containing Chlorpyrifos 4E AG.

- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, micro sprinkler, or hand move. **DO NOT** apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

3. If you have questions about calibration, you should contact State Extension Service Specialist, equipment manufacturers, or other experts.
4. **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.
5. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
6. The system must contain a functional check valve, vacuum relief valve, and a low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. Refer to the American Society of Agricultural Engineer's Engineering Practice 409 for more information.
7. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
8. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
9. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
10. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
11. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. The metering pump must provide a greater pressure than that of the irrigation system at the point of injection. The pump must meet Section 675 for "Electrically Driven or Controlled Irrigation Machines" NEC 70 and must contain Viton or Teflon seals.
12. To insure uniform mixing of the insecticide into the water line, inject the mixture through a nozzle placed in the fertilizer injection port or just ahead of an elbow or tee in the irrigation line so that the turbulence created at those points will assist in mixing. It is suggested that the injection point be higher than the insecticide tank to prevent siphoning.
13. The steel tank holding the insecticide mixture should be large enough to allow the system to complete a revolution with one filling. It should be free of rust, fertilizer sediment, and foreign material, and equipped with an in-line strainer situated between the tank and the injector pump.
14. In order to calibrate the irrigation system and injector to apply the mixture containing Chlorpyrifos 4E AG, determine the following: 1) Calculate the number of acres irrigated by the system; 2) Set the irrigation rate and determine the number of minutes for the system to cover the intended treatment area; 3) Calculate the total gallons of insecticide mixture needed to cover the desired acreage. Divide the total gallons of insecticide mixture needed by the number of minutes to cover the treatment area. This value equals the gallons per minute output that the injector must deliver. Convert the gallons per minute to milliliters or ounces per minute. Calibrate the injector pump with the system in operation at the desired irrigation rate. It is suggested that the injector pump be calibrated at least twice before operation, and monitor the system.
15. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment. End guns must be turned off during the application if they irrigate nontarget areas.
16. **DO NOT** allow irrigation water to collect or runoff and pose a hazard to livestock, wells, or adjoining crops.
17. Allow foliage to dry before reentering the field.
18. **DO NOT** apply through sprinkler systems that deliver a low coefficient of uniformity such as certain water drive units.

CHRISTMAS TREE PLANTATIONS

Worker Restricted Entry Interval: DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours days unless PPE required for early entry is worn.

Use Chlorpyrifos 4E AG at the rate indicated to control the following insects on the tree varieties listed.

TREE VARIETY	PEST	DOSAGE CHLORPYRIFOS 4E AG	SPECIFIC DIRECTIONS
Balsam fir Concolor fir Douglas fir Eastern white pine Fraser fir Grand fir Noble fir Scotch pine White spruce	Ants (except fire ants, carpenter ants, harvester ants, and pharaoh ants), Aphids, Adelgids (Cooley, Eastern spruce gall), European pine shoot moth, European pine sawfly, Grasshopper, Gypsy moth, Mites (European red spider, Two spotted spider)[except in WA & OR], Pales weevil (adult), Pine needle midge, Pine spittlebug, Plant bugs, Spittlebugs, Spruce budworm, Spruce needleminer, Scale (Pine needle, Pine tortoise, Spruce bud, Black pine, Striped pine)	1 quart/acre (1 lb. a.i./acre)	DO NOT treat plants under extreme heat and drought stress. Apply as a foliar spray using ground equipment. Thorough coverage of foliage is essential. Use a minimum 10 gpa of finished spray. For effective control of adult spider mites if large numbers of eggs are present, apply a second spray 7 -10 days after initial treatment to control newly hatched nymphs. For scale control, apply when scale crawlers are active. Before treating other conifer species, make application and observe for 7 to 10 days for symptoms of phytotoxicity. The user is responsible for determining if it is safe to treat other conifer species under commercial growing conditions.
	Pales weevil	3 quarts/100 gal. (3 lbs. a.i./100 gal.)	Apply as a cut stump drench.

RESTRICTIONS: Use Chlorpyrifos 4E AG on tree plantations only in Connecticut, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Tennessee, Vermont, Virginia, Washington, and Wisconsin. **DO NOT** allow livestock to graze in treated areas. **DO NOT** make more than 3 applications per season. **DO NOT** make a second application of Chlorpyrifos 4EAG within 7 days of the first application. **DO NOT** apply by aerial application.

TURF GRASS GROWN FOR COMMERCIAL SOD

Worker Restricted Entry Interval: DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours unless PPE required for early entry is worn.

Use Chlorpyrifos 4E AG to control the pests listed in the following table by application at the listed dosages. Dilute Chlorpyrifos 4E AG in water and apply using suitable application equipment. For best results, turf should be moist at time of treatment.

PESTS	AMOUNT OF CHLORPYRIFOS 4E AG	
	1000 sq. ft.	Acre
Ants (except fire ants, carpenter ants, harvester ants, and pharaoh ants), armyworms (such as: beet, fall, yellowstriped), chinch bugs, crickets, cutworms, earwigs, European crane fly larvae, fiery skipper, gnats, grasshoppers, greenbug aphids, green June beetle grubs, leafhoppers, Lucerne moth, millipedes, mites (such as: clover, Bermudagrass stunt, winter grain), pillbugs, springtails, sod webworms (lawn moths) (1), sowbugs	¾ fl oz	1 qt. (1 lb. a.i.)
Billbug adults (such as: bluegrass, Denver, hunting) (2)	¾ - 1 ½ fl. oz.	1-2 qt. (1-2 lbs. a.i.)
Annual bluegrass weevil (<i>Hyperodes</i>) (3), black turfgrass ataenius adults (4), mole crickets (5)	1 ½ fl. oz.	2 qt. (2 lbs. a.i.)
White grubs (such as: black turfgrass ataenius, European chafer, Japanese beetle larvae, and northern and southern masked chafers)(6)	1 ½ - 3 fl. oz.	2-4 qt. (2-4 lbs. a.i.)

Numbers in parentheses (-) refer to Specific Use Directions below.

SPECIFIC USE DIRECTIONS:

- For sod webworms, watering or mowing of the treated area should be delayed for 12 to 24 hours after treatment.
- 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.
- To control 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.
- 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.
- To control mole crickets in turfgrass, apply Chlorpyrifos 4E AG through high-pressure injection or other suitable subsurface placement application equipment. Depending on the application equipment used, 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. For best results, apply when young nymphs are active.
- 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. For best results, soil should be moist prior to treatment. For best results, immediately after spraying, irrigate the treated area with ½ to 1 inch of water to wash the insecticide into the thatch and underlying soil.

TURF AND OTHER NONRESIDENTIAL OUTDOOR USES

Chlorpyrifos 4EAG is an emulsifiable concentrate for control of pests located around industrial buildings (turf and ornamental), road medians (turf and ornamentals), and golf course turf only. Pests controlled by Chlorpyrifos 4EAG are listed in the following tables. Chlorpyrifos 4EAG is compatible with fungicides, insecticides, and miticides commonly recommended except for alkaline materials such as Bordeaux mixtures and lime. A small jar compatibility test should always be conducted using proper proportions of chemicals and water to check for physical compatibility prior to tank mixing.

Precautions and Restrictions: 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. **DO NOT** use Chlorpyrifos 4E AG in poultry houses.

ORNAMENTALS AROUND INDUSTRIAL BUILDINGS AND ROAD MEDIANS

Chlorpyrifos 4E AG may be used to treat evergreens, vines, flowers, shrubs, shade and flowering trees, non-bearing fruit, nut and citrus trees found around industrial buildings and road medians infested with pests listed in the following table. Dilute Chlorpyrifos 4E AG with water according to the directions given in the table 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. 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 over-spraying to the point of excessive runoff. Treat when pests appear and repeat at 7 to 10 day intervals, if needed. For application timing and other specific use information, consult your State Agricultural Experiment Station or Extension Service Specialist.

Note: Environmental factors have significant effects on phytotoxic expression. Chlorpyrifos 4E AG has been tested on numerous ornamental plants without causing serious phytotoxicity at listed use rates. Some varieties of azaleas, camellias, poinsettias, rose bushes, or variegated ivy have shown varying degrees of phytotoxicity following treatment with Chlorpyrifos 4EAG. Before treating large numbers of plants (especially those previously listed), treat a small block of plants and observe for 7 to 10 days to determine phytotoxic potential.

Note: The user assumes responsibility for determining if Chlorpyrifos 4E AG is safe to treated plants under commercial growing conditions.

PEST*	Amount of Chlorpyrifos 4E AG in Water to Make		Specific Directions
	Per Acre	100 Gallons	
Adelgids: (Cooley, Eastern spruce galls, Pine bark), Ants (except fire ants, carpenter ants, harvester ants, and pharaoh ants), Aphids: (Apple, Chrysanthemum, Cottonwood, Elm leaf, Peach, Rose, Spirea, Woolly), Armyworms: (Fall, Yellowstriped), Bagworms ¹ , Boxelder bugs, Cankerworms, Catalpa sphinx, Chiggers (for control of chiggers in golf courses, road medians, and industrial sites only), Mealy bugs, Elm spanworms, Fall webworms ² , Grasshoppers, Green fruitworms, Hornworms, Jackpine budworms, Juniper webworms, Katydid, Lace bugs, Leafhoppers, Leafrollers ³ , Maple leafcutters ⁴ , Mites ⁵ : (Clover, Red spider, Southern red, Spruce spider, Twospotted spider), Oleander caterpillars, Orange tortrix, Periodical cicada, Plant bugs, Poplar tentmaker, Psyllids, Puss caterpillars, Rose chafers, Sawflies, exposed: (Pin oak, Pine, Redheaded), Sowbugs, Spittlebugs, Spring elm caterpillars, Springtails, Spruce budworms: (Eastern, Western), Tent caterpillars: (Eastern, Western, Forest), Thornbug, Walnut caterpillars, Whiteflies, Yellownecked caterpillars	1 pt. – 1 qt. (0.5 - 1 lb. a.i.)	8-16 fl. oz.	¹ Treat when bagworm larvae are small and actively feeding. ² Direct spray into web and immediately adjacent foliage for control of fall webworms. ³ For effective control of leafrollers, spray before leaves are tightly rolled. ⁴ Apply spray to maple leafcutter larvae as cases are being formed for effective control. DO NOT treat sugar maple trees intended for maple syrup production. ⁵ For effective control of spider mites when large numbers of eggs are present, apply a 2 nd spray 3-5 days in the South or 7-10 days in the North after initial treatment to control newly hatched nymphs.
Armyworms: (Beet), Beetles: (Fuller rose, Native elm bark ¹), Browntail moth, Cutworms, Leafhoppers, Mahogany webworms, Mealbugs, Mimosa webworms, Moths: (Brownail, Cypress tip, Douglas fir tussock, European pine shoot, Gypsy ² , Holly bud, Nantucket pine tip, Pandora, Pitch pine tip, Subtropical pine tip, Tussock, Oakworms: (California, Orangestriped, Redhumped), Redhumped caterpillars, Thrips: (Exposed), Weevils: (Blackvine ³ , Pine production, Yellow poplar)	1 qt. (1 lb. a.i.)	1 pt. (0.5 lb a.i.)	¹ Make applications in the spring or early summer to reduce twig and branch feeding by bark beetles. ² To kill migrating and invading gypsy moth larvae, treat trunks and foliage. ³ Blackvine weevils are night feeders. Late afternoon spraying will maximize control.
Foliar feeding beetles: (Blister leaf, Cottonwood leaf ¹ , Elm leaf, Flea, Fuller rose, Japanese, June, Willow leaf)	1 qt. (1 lb. a.i.)	1 pt. (0.5 lb. a.i.)	¹ Use Chlorpyrifos 4E AG in water to control cottonwood leaf beetle larvae and adults infesting cottonwoods. Make the treatment when field counts indicate damaging beetle populations are developing or present.
Borers ¹ , Clearwing moths: (Ash, Dogwood, Lesser peachtree, Lilac, Oak, Rhododendron), Metallic wood: (Bronze birch, Flathead apple tree, Twolined chestnut), Longhorned beetles: (Locust, Red oak), Cranberry girdler larvae ² , Leafminers, Needleminers: (Jeffrey pine, Lodgepole pine, Spruce), Scale insects ³ : (Cottoncushion, Cottony maple, Euonymus, Fletcher, Florida wax, Golden oak, Hemispherical, Lecanium, Magnolia, Oak kermes, Oak lacanium, Oystershell, Pine needle, San Jose, Tea, White birch, White peach)	1 qt. (1 lb. a.i.)	1 qt. (1 lb. a.i.)	¹ For borers, apply Chlorpyrifos 4E AG to the trunks and lower limbs of trees and shrubs when the adults begin to emerge. Consult your State Agricultural Experiment Station or Extension Service Specialist for proper time to treat. Apply uniformly a coarse, low-pressure spray. Pheromone traps may aid in detection of adult clearwing moths. ² Apply 1 qt. of Chlorpyrifos 4E AG for cranberry girdler larvae. Direct spray at the base of tree using 50 gallons of water per acre. Irrigate immediately after applications for soil penetration of 1-2 inches. Treat after egg laying during the summer. ³ Time applications for control of scale insects when crawlers or first two stages of settled nymphs are present.
Borers: (Cottonwood, Peachtree ¹)	1 qt. (1 lb. a.i.)	3 qts. ** (3 lbs. a.i.)	¹ For peachtree borers, apply Chlorpyrifos 4E AG 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. ** When using the 3 qt. per 100 gallon dilution, DO NOT exceed 1qt. of Chlorpyrifos 4E AG per acre.
Beetles ¹ : (Includes wood infesting, Ambrosia, Anobiidae, Black turpentine, Cottonwood leaf, Elm leaf, European elm bark, Flea, Fuller rose, Japanese, June, Native elm bark ² , Southern pine, Willow leaf)	1 qt. (1 lb. a.i.)	2 gals. ***	¹ For preventative 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. ² To prevent native elm bark beetles from overwintering in uninfested trees, apply Chlorpyrifos 4E AG 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 early fall. **** When using the 2-gallon per 100-gallon dilution, DO NOT exceed 1 qt. of Chlorpyrifos 4E AG per acre.
--	--	--	--

FOR COMMERCIAL ORNAMENTALS IN NURSERIES

FOR USDA QUARANTINE USE ONLY AND FOR DIRECT MOUND AND/OR DRENCH APPLICATION ONLY

Chlorpyrifos 4E AG may be used for USDA quarantine use only to treat containerized, potted, or balled and burlapped nursery stock to control the insects in the soil attached to the roots of these plants. Completely submerge the container with drain holes or root ball stabilized by burlap in a tank containing diluted Chlorpyrifos 4E AG. **DO NOT** remove burlap wrap or plastic containers with drain holes prior to submerging. Keep the container or root ball submerged until complete soil saturation has occurred, normally about 30 seconds.

Precautions: During all operations (submerging, drenching, injecting), wear a chemical-resistant apron in addition to other PPE listed for applicators and other handlers. Make applications in a well-ventilated area.

Note: Environmental factors have significant effects on phytotoxic expression. Chlorpyrifos 4E AG has been tested on numerous ornamental plants without causing serious phytotoxicity at listed use rates. However, because of the numerous varieties grown, treat a small group of plants at the listed rate under the anticipated growing conditions and observe for at least 7 days to determine phytotoxic potential before treating a larger number of plants.

Note: The professional user assumes responsibility for determining if Chlorpyrifos 4E AG is safe to treated plants under commercial growing conditions.

PEST*	Amount of Chlorpyrifos 4E AG in Water to Make		Specific Directions
	1 Gallon	100 Gallons	
Fire Ants ¹	1/25 fl. oz.	4 fl. oz.	¹ As an alternative to submerging potted plants, dilute 4 oz. of Chlorpyrifos 4E AG in 100 gallons of water. Apply this dilution to the point of runoff twice daily for 3 consecutive days. DO NOT remove burlap wrap or container from plants prior to treatment.
White Grubs ² Weevils ³ (such as Blackvine)	3/8 fl. oz.	2 qts. ** (2 lbs. a.i.)	² An alternative treatment to submerging containerized plants is to drench the container with the diluted insecticide solution applying approximately 10 to 12 fl. oz. of diluted insecticide solution per gallon of container size (4-5 fl. oz./100 cubic inches of container). The container media should be pre-moistened by irrigation or rainfall before drenching. DO NOT remove container from plants prior to treatment.
Coffee root mealybug ²	1/6 fl. oz.	1 pt. (0.5 lb. a.i.)	³ An alternate treatment to submerging balled and burlapped plants is to inject Chlorpyrifos 4E AG into the root ball. Equally distribute 1 to 3 quarts of the dilute Chlorpyrifos 4E AG solution per cubic foot of soil volume through an injection rod inserted into the soil ball surrounding the plant roots. Uniform distribution of the insecticide throughout the soil of the root ball is critical for effective control. It is recommended that the injection rod be inserted in at least 4 equally spaced locations around the stem of the plant at a 30-45 degree angle from the plant between the stem and the upper, outer perimeter of the ball. This technique has been shown to be most effective with small root balls (up to 1.5 ft in diameter). Larger root balls may require more injection points to ensure thorough soil distribution of the insecticide. The injection rod should be coupled to a flow meter to monitor the correct volume applied per root ball using an injection pressure of at least 30 psi. The application should be made such that splash-back and runoff are minimized. **DO NOT exceed more than 1 quart (1 lb. a.i.) of Chlorpyrifos 4E AG per acre.

*Superscripts refer to specific directions.

IN INDUSTRIAL PLANT SITES AND ROAD MEDIANS (DORMANT SPRAY OF TREE PESTS)

Chlorpyrifos 4E AG may be used as a dormant or delayed dormant spray at the rates indicated to control the listed insects. Chlorpyrifos 4E AG may be used without oil; however, oil is recommended to control additional pests such as the European red mite.

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 4E AG 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 4E AG plus oil to infuse trees resulting in bud damage or drop.

Restrictions: Make only one application during the dormant season except for the control of the apple ermine moth. **DO NOT** allow meat or dairy animals to graze in treated areas.

PEST*	Amount of Chlorpyrifos 4E AG in Water to Make			Specific Directions
	1 Gallon	3 Gallons	100 Gallons	
Aphids: (Mealy plum, Rosy Apple, Woolly apple), Borers: (Peach twig), Cutworms: (Climbing), Leafrollers: (Pandemis), Pear psylla adults, Plant bugs, Scale: (San Jose)	1/12 – 1/6 fl. oz.	¼ - ½ fl. oz.	½ - 1 pt.	Tank mix with 1-2 gallons of a petroleum spray oil recommended for dormant use in 100 gallons of water.
Apple ermine moth	1/12 fl. oz.	¼ fl. oz.	½ pt.	For control on <i>Malus</i> species make 2 applications at a 7-14 day interval in combination with a petroleum spray oil at the rate of 2-4% (v/v) in a spray to wet application to ensure thorough coverage of all stems and branches. When using tank mixtures, follow all label directions for the mixing partner (oil). Use appropriate application equipment and spray volumes to ensure complete coverage of the plant(s) or control will be compromised.

TURF, INDUSTRIAL PLANT, AND ROAD MEDIAN OUTDOOR USES

Apply Chlorpyrifos 4E AG to control the pests listed in the following table at the listed dosages and in accordance with the directions given below or as recommended by your local Agricultural Extension Service specialist. Dilute Chlorpyrifos 4E AG in water and apply as a coarse, low-pressure spray using suitable application equipment. Except as noted, thoroughly water immediately after treatment to wash the insecticide into the turf. The area to be treated should be moist at the time of treatment. Spray when pests first appear; retreat when needed.

PEST*	Amount of Chlorpyrifos 4E AG per		Specific Directions
	1,000 sq. feet	Acre	
Ticks ¹ : (American dog, Cattle fever, Gulf coast, Lone star)(for control of ticks in golf courses, road medians, and industrial plant sites only)	¼ fl. oz.	1 ½ pts.	¹ For control of ticks, treat soil and other areas likely to serve as harborage sites for ticks that have removed themselves from their host. Spray surfaces to be treated until wet but DO NOT create excessive runoff. Note: This application is intended as a premise spray only. DO NOT use as a direct spray on livestock or any sites that may come in contact with livestock.
Ants (except fire ants, carpenter ants, harvester ants, and pharaoh ants), Armyworms: (Beet, Fall, Yellowstriped), Chiggers ¹ (for control of chiggers in golf courses, road medians and industrial plant sites only), Chinch bugs, Clover mites, Cutworms, Crickets, Deer ticks ² (for control of ticks in golf courses, road medians, and industrial sites only), Earwigs, Fiery skipper, Gnats, Grasshoppers, Greenbug aphids, June beetles, Leafhoppers, Lucerne moths, Millipedes, Mites: (Clover, Bermudagrass stunt, Formula grass, Winter grain), Pillbugs, Sod webworms ³ : (Lawn moths), Sowbugs, Ticks ¹ (for control of ticks in golf courses, road medians and industrial plant sites only)	¾ fl. oz.	1 qt.	¹ Apply Chlorpyrifos 4E AG for area control of ticks and chiggers infesting golf course turf, turf in 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 Chlorpyrifos 4E AG in water at the rate of ½ pint/acre (equivalent to 1/6 fl. oz. per 1,000 sq. ft.) using a hydraulic sprayer, mist applicator, knap sack 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 40-100 gals./acre. ² Apply Chlorpyrifos 4E AG in water at the rate of 1 quart per acre or ¾ fl. oz. per 1,000 sq. ft. for control of deer ticks. Treat low underbrush, turf, grassy areas, weeds, and ground surface and debris, using enough spray volume to obtain thorough coverage. ³ For sod webworms, watering or mowing of the treated area should be delayed for 24 hours after treatment.
European crane fly	1 fl. oz.	1 qt.	-
Turfgrass weevil (<i>Hyperodes</i>) ¹	1 ½ fl. oz.	1 qt.	¹ Make application to problem areas in mid-April and again in mid-May or as recommended by your local Agricultural Extension Service specialist.
White grubs ¹ : (Black turfgrass ataenius, European chafer, Japanese beetle larvae, Southern and Northernmasked chafer)	1 ½ - 3 fl. oz.	1 qt.	¹ Spray when white 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 ½ to 1 inch of water to wash the insecticide deep into the thatch or into the underlying soil.
Billbug adults, such as: (Bluegrass, Denver, Hunting)	¾ - 3 fl. oz.	1 qt.	Spray early in the season when adult billbugs first appear.
Mole Crickets	1 ½ fl. oz.	1 qt.	For mole crickets in golf course turf, turf in road medians, and industrial plant site turfgrass, apply through high-pressure injection or other suitable subsurface placement application equipment. Depending on the application equipment used, 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.

*Superscripts refer to Specific Directions.

OUTSIDE SURFACES AND AROUND INDUSTRIAL PLANT SITES (SUCH AS AROUND WAREHOUSES)

Chlorpyrifos 4E AG may be applied as a residual spray to and around outside surfaces of nonresidential buildings and structures. Permitted areas of use include fences, pre-construction foundations, refuse dumps, outside of walls, and other areas where pests congregate or have been seen.

Restrictions:

- **DO NOT** allow adults, children, or pets to contact treated surfaces until sprays have dried. Keep out of fish pools and other bodies of water.
- **DO NOT** feed treated grass cuttings (hay) or seed screenings to livestock, or use treated hay for livestock bedding.
- **DO NOT** treat vegetable gardens. Repeat treatment as needed to maintain effectiveness. Unless prohibited by a products' label, users, at their own discretion, can tank mix pesticides currently labeled for similar use patterns. Always perform a small jar compatibility test using proper proportions to check for physical compatibility prior to tank mixing.
- **DO NOT** tank mix this product with products containing dichlorvos (DDVP).

PEST*	Amount of Chlorpyrifos 4E AG in Water to Make			Specific Directions
	1 Gallon	10 Gallons	50 Gallons	
	For Band Treatment ¹			
Ants (except fire ants, carpenter ants, harvester ants, and pharaoh ants), Beetles, Boxelder bugs (or other true bugs), Clover mites, Crickets, Earwigs, Elf leaf beetles (adults), Firebrats, Millipedes, Pillbugs, Silverfish, Sowbugs, Spiders (excluding black widow and brown recluse spiders), Springtails, Ticks (for control of ticks in golf courses, road medians and industrial plant sites only)	¼ tsp.	¾ fl. oz.	4 fl. oz.	¹ To help prevent infestation of non-residential buildings, treat a band of soil 6-10 ft. wide around and adjacent to buildings including the building foundation to a height of 2-3 ft. where pests are active and may find entrance. Use 4 fl. oz. of Chlorpyrifos 4E AG per 50 gals. of water and apply as a coarse spray at the rate of about 10 gals. of spray mixture per 1,000 sq. ft. to thoroughly and uniformly wet the band area.
	For Outside Surfaces			Specific Directions
	1 ⅓ fl. oz.	13 ⅓ fl. oz.	2 qts.**	**DO NOT exceed 1 qt. of Chlorpyrifos 4E AG per acre.

*Superscripts refer to Specific Directions.

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

PESTICIDE 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°F 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: Open dumping is prohibited. 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 HANDLING:

Nonrefillable Container (five gallons or less): Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. 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.

Nonrefillable Container (greater than five gallons): Nonrefillable container. **DO NOT** reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. 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.

Refillable Container (greater than 55 gallons): Refillable container. Refill this container with chlorpyrifos only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. 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. For final disposal, offer for recycling or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

LIMITATION OF WARRANTY AND LIABILITY

Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES, and LIMITATIONS OF LIABILITY.**

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ADAMA. To the extent consistent with applicable law, all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ADAMA makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of ADAMA is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ADAMA disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at ADAMA's election, the replacement of product.

Chlorpyrifos 4E AG 66222-19-Master-pending -08302023