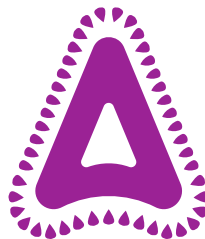


RESTRICTED USE PESTICIDE

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.

QUALI-PRO



CHLORPYRIFOS 4E

Insecticide

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. Quali-Pro Chlorpyrifos 4E is not manufactured or distributed by Dow AgroSciences LLC.

KEEP OUT OF REACH OF CHILDREN
WARNING

EPA Reg. No.: 66222-19

EPA Est No.: 53883-TX-002

CONTENTS: 2.5 GALLONS



EPA 112509



ADAMA

Manufactured for:
Makhteshim Agan of
North America, Inc. (d/b/a ADAMA)

3120 Highwoods Blvd., Ste. 100
Raleigh, NC 27604

**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.
<p>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 Prosar at 1-877-250-9291.</p>	
<p>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.</p>	

**PRECAUTIONARY STATEMENTS
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. Do not get in eyes, on skin, or on clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for category *H* 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
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- A NIOSH-approved dust mist filtering respirator with MSHA/NIOSH approval number prefix TC-21C or a NIOSH-approved respirator with any R, P, or HE filter

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, 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, 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 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. 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

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.

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.

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
- 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 [40 CFR 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

Quali-Pro Chlorpyrifos 4E 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. **Attention:** Do not cut or weld container.

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, non-target 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 orchard/vineyard airblast applications, do not apply within 50 feet of rivers, natural ponds, lakes, streams, reservoirs, marshes, estuaries, and commercial fish ponds. Direct spray above trees/vines and turn off outward-pointing nozzles at row ends and outer rows. Apply only when wind speed is 3 to 10 mph at the application site, as measured by an anemometer outside of the orchard/vineyard on the upwind side.
- 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 to 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 ¹	10	10
> 2 - 3	Medium	100 ¹	10	10
> 3 - 4	Medium or coarse	NA ²	25	10
> 4	Medium or coarse	NA	50	10

¹Aerial application of greater than 2 lbs. ai/A is only permitted for Asian Citrus Psylla control, up to 2.3 lbs. ai/A. ²NA 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 Quali-Pro Chlorpyrifos 4E. 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.

Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E alone. When tank mixtures of Quali-Pro Chlorpyrifos 4E 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.

NOTE: Test compatibility of the intended tank mixture before adding Quali-Pro Chlorpyrifos 4E 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 redispense indicates an incompatible mixture that should not be used.

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 unless PPE required for early entry is worn.

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

TREE VARIETY	PEST	DOSAGE QUALI-PRO CHLORPYRIFOS 4E	REMARKS
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, Twospotted 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 to 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 gals. (3 lbs. a.i./100 gals.)	Apply as a cut stump drench.

RESTRICTIONS: Use Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E within 7 days of the first application. Do not apply by aerial application.

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

PESTS	AMOUNT OF QUALI-PRO CHLORPYRIFOS 4E	
	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	3/4 fl. oz.	1 qt. (1 lb. a.i.)
Billbug adults (such as bluegrass, Denver, hunting) (2)	3/4 – 1 1/2 fl. oz.	1 – 2 qts. (1 – 2 lbs. a.i.)
Annual bluegrass weevil (Hyperodes) (3), Black turfgrass ataeenius adults (4), Mole crickets (5)	1 1/2 fl. oz.	2 qts. (2 lbs. a.i.)
White grubs (such as black turfgrass ataeenius, European chafer, Japanese beetle larvae, and Northern and Southern masked chafers) (6)	1 1/2 – 3 fl. oz.	2 – 4 qts. (2 – 4 lbs. a.i.)

Numbers in parentheses (-) refer to **SPECIFIC USE DIRECTIONS** below.

SPECIFIC USE DIRECTIONS:

1. For sod webworms, watering or mowing of the treated area should be delayed for 12 to 24 hours after treatment.
2. 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.
3. 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.
4. For black turfgrass ataeenius 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.
5. To control mole crickets in turfgrass, apply Quali-Pro Chlorpyrifos 4E 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.
6. 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 1/2 to 1 inch of water to wash the insecticide into the thatch and underlying soil.

TURF AND OTHER NONRESIDENTIAL OUTDOOR USES

Quali-Pro Chlorpyrifos 4E is an emulsifiable concentrate for control of pests located around industrial buildings (turf and ornamentals), road medians (turf and ornamentals), and golf course turf only. Pests controlled by Quali-Pro Chlorpyrifos 4E are listed in the following tables. Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E in poultry houses.

ORNAMENTALS AROUND INDUSTRIAL BUILDINGS AND ROAD MEDIANS

Quali-Pro Chlorpyrifos 4E may be used to treat evergreens, vines, flowers, shrubs, shade and flowering trees, non-bearing fruit, and nut and citrus trees found around industrial buildings and road medians infested with pests listed in the following table. Dilute Quali-Pro Chlorpyrifos 4E 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. Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E. 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 Quali-Pro Chlorpyrifos 4E is safe to treated plants under commercial-growing conditions.

PEST*	Amount of Quali-Pro Chlorpyrifos 4E 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), Brown-tail moth, Cutworms, Leafhoppers, Mahogany webworms, Mealybugs, Mimosa webworms, Moths: (Browntail, 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 Quali-Pro Chlorpyrifos 4E 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 appletree, Twolined chestnut), Longhorned beetles: (Locust, Red oak), Cranberry girdler larvae ² , Leafminers, Needleminers: (Jeffrey pine, Lodgepole pine, Spruce), Scale insects ³ : (Cottony-cushion, Cottony maple, Euonymus, Fletcher, Florida wax, Golden oak, Hemispherical, Lecanium, Magnolia, Oak kermes, Oak laccanum, 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 Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E 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.

(continued on next page)

PEST*	Amount of Quali-Pro Chlorpyrifos 4E in Water to Make		Specific Directions
	Per Acre	100 Gallons	
Borers: (Cottonwood, Peachtree ¹)	1 qt. (1 lb. a.i.)	3 qts. ** (3 lbs. a.i.)	¹ For peachtree borers, apply Quali-Pro Chlorpyrifos 4E in water to flowering trees and shrubs of the genus Prunus 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-quart-per-100-gallon dilution, do not exceed 1 qt. of Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E per acre.

FOR COMMERCIAL ORNAMENTALS IN NURSERIES, FOR USDA QUARANTINE USE ONLY, AND FOR DIRECT MOUND AND/OR DRENCH APPLICATION ONLY

Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E. 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. Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E is safe to treated plants under commercial-growing conditions.

PEST*	Amount of Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E 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)	2/3 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 to 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. ³ An alternate treatment to submerging balled and burlapped plants is to inject Quali-Pro Chlorpyrifos 4E into the root ball. Equally distribute 1 to 3
Coffee root mealybug ²	1/6 fl. oz.	1 pt. (0.5 lb. a.i.)	quarts of the dilute Quali-Pro Chlorpyrifos 4E 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- to 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 Quali-Pro Chlorpyrifos 4E per acre.

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

Quali-Pro Chlorpyrifos 4E may be used as a dormant or delayed-dormant spray at the rates indicated to control the listed insects. Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E 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.	1/4 - 1/2 fl. oz.	1/2 - 1 pt.	Tank mix with 1 to 2 gallons of a petroleum spray oil recommended for dormant use in 100 gallons of water.
Apple ermine moth	1/12 fl. oz.	1/4 fl. oz.	1/2 pt.	For control of <i>Malus</i> species, make 2 applications at a 7- to 14-day interval in combination with a petroleum spray oil at the rate of 2% to 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 Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E 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; re-treat when needed.

PEST*	Amount of Quali-Pro Chlorpyrifos 4E per		Specific Directions
	1000 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 Quali-Pro Chlorpyrifos 4E 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 Quali-Pro Chlorpyrifos 4E in water at the rate of ½ pint/acre (equivalent to 1/6 fl. oz. per 1000 sq. ft.) using a hydraulic sprayer, mist applicator, knapsack sprayer, or other suitable hand- or power-operated spray equipment. Treat low underbrush, grassy areas, weeds, and ground surface and debris using enough spray volume to obtain thorough coverage, usually 40-100 gals./acre. ² Apply Quali-Pro Chlorpyrifos 4E in water at the rate of 1 quart per acre or ¾ fl. oz. per 1000 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 ataxius, European chafer, Japanese beetle larvae, Southern and Northern masked 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, FOOD PROCESSING, AND FOOD MANUFACTURING SITES)

Quali-Pro Chlorpyrifos 4E 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. 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 product's 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 Quali-Pro Chlorpyrifos 4E 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 (for other true bugs), Clover mites, Crickets, Earwigs, Elm 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 to 10 ft. wide around and adjacent to buildings including the building foundation to a height of 2 to 3 ft. where pests are active and may find entrance. Use 4 fl. oz. of Quali-Pro Chlorpyrifos 4E per 50 gals. of water and apply as a coarse spray at the rate of about 10 gals. of spray mixture per 1000 sq. ft. to thoroughly and uniformly wet the band area.
For Outside Surfaces				
	1 1/3 fl. oz.	13 1/3 fl. oz.	2 qts.**	**Do not exceed 1 qt. of Quali-Pro Chlorpyrifos 4E per acre.

*Superscripts refer to **Specific Directions**.

ANTS (EXCEPT FIRE ANTS, CARPENTER ANTS, HARVESTER ANTS, AND PHARAOH ANTS) AND MISCELLANEOUS PESTS

PEST	Amount of Quali-Pro Chlorpyrifos 4E in Water to Make			Specific Directions
	1 Gallon	3 Gallons	100 Gallons	
Ants (except fire ants, carpenter ants, harvester ants, and pharaoh ants), Cockroaches (American, Asian, Brownbanded, German, Oriental, Smokey brown, Wood), Sowbugs, Springtails	1/6 fl. oz.	½ fl. oz.	1 pt.	

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.

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. 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.

Quali-Pro is a registered trademark of ADAMA.

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.

QUALI-PRO[®]



CHLORPYRIFOS 4E

Insecticide

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. Quali-Pro Chlorpyrifos 4E is not manufactured or distributed by Dow AgroSciences LLC.

**KEEP OUT OF
REACH OF CHILDREN
WARNING**

EPA Reg. No.: 66222-19

EPA Est No.: 53883-TX-002

NET CONTENTS: 2.5 GALLONS



EPA 112509



ADAMA

Manufactured for:
Makhteshim Agan of
North America, Inc. (d/b/a ADAMA)

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Raleigh, NC 27604

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