To control pests indoors and outdoors on residential, institutional, public, commercial, and industrial buildings, greenhouses, animal confinement facilities/livestock premises, kennels, food handling establishments, and lawns, ornamentals, parks, recreational areas and athletic fields.

When used as a termicide, individuals/firms must be licensed by the state to apply termicide products. States may have more restrictive requirements regarding qualifications of persons using this product. Consult the pest control regulatory agency of your state prior to use of this product.

Provides up to 1 month residual control of house flies
Kills fleas for up to 3 months

EPA Reg. No. 279-3206 EPA Est. 279-NY-1
Active Ingredient: By Wt.
   Bifenthrin* ...................................................... 7.9%
Other Ingredients: ............................................. 92.1%
   100.0%

Talstar® P Professional Insecticide contains ⅔ pound active ingredient per gallon.
*Cis isomers 97% minimum, trans isomers 3% maximum.

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

If swallowed
   • Call poison control center or doctor immediately for treatment advice.
   • Have person sip a glass of water if able to swallow.
   • Do not induce vomiting unless told to do so by the poison control center or doctor.
   • Do not give anything by mouth to an unconscious person.

If inhaled
   • Move person to fresh air.
   • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
   • Call a poison control center or doctor for further treatment advice

If on skin or clothing
   • 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 in eyes
   • Hold eye open and rinse slowly and gently with water for 15-20 minutes.
   • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
   • Call a poison control center or doctor for treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-(800)-331-3148 for Emergency Assistance.

NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestine should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

For Information Regarding the Use of this Product Call 1-800-321-1FMC (1362).

PRECAUTIONARY STATEMENTS

Hazards to Humans (and Domestic Animals)

CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash before reuse. All pesticide handlers (mixers, loaders and applicators) must wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. After the product is diluted in accordance with label directions for use, and/or when mixing and loading using a closed spray tank transfer system (such as an in-line injector system), shirt, pants, socks, shoes and water-proof gloves are sufficient. In addition, all pesticide handlers must wear a respiratory protection device1 when working in a non-ventilated space. All pesticide handlers must wear protective eyewear when working in non-ventilated space.

1Use one of the following NIOSH approved respirator with any R, P or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter.

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

User Safety Recommendations:

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

FMC Corporation
32929 Walnut Street
Philadelphia PA 19104

Net Contents: 1 Gallon

3-22-17
Environmental Hazards
This pesticide is extremely toxic to fish and aquatic invertebrates. Drift and run-off from treated areas may be hazardous to aquatic organisms in neighboring areas. Care should be used when spraying to avoid fish and reptile pets in/around ornamental ponds.

To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help to avoid run off to water bodies or drainage systems.

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 to drift to blooming crops if bees are foraging the treatment area.

Physical and Chemical Hazards
Do not apply water-based dilutions of Talstar® P Professional Insecticide to electrical conduits, motor housings, junction boxes, switch boxes or other electrical equipment because of possible shock hazard.

DIRECTIONS FOR USE
It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.
Do not apply a broadcast application to interior surfaces of homes.
Do not apply by air.
Do not apply in plant nurseries.
Do not apply this product through any kind of irrigation system.

Not for use on sod farm turf, golf course turf, or grass grown for seed.

Do not water treated area to the point of run-off.
Do not make applications during rain.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

Additional Application Restrictions for Residential Outdoor Surface and Space Sprays:
All outdoor applications, if permitted elsewhere on this label, must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses, if allowed elsewhere on this label:
1. Applications to soil or vegetation, as listed on this label, around structures;
2. Applications to lawns, turf, and other vegetation, as listed on this label;
3. Applications to the side of a building, up to a maximum height of 3 feet above grade;
4. Applications to underside of eaves, soffits, doors, or windows permanently protected from rainfall by a covering, overhang, awning, or other structure;
5. Applications around potential pest entry points into buildings, when limited to a surface band not to exceed one inch in width;
6. Applications made through the use of a coarse, low pressure spray to only those portions of surfaces that are directly above bare soil, lawn, turf, mulch or other vegetation, as listed on this label, and not over an impervious surface, drainage or other condition that could result in runoff into storm drains, drainage ditches, gutters or surface waters, in order to control occasional invaders or aggregating pests.

Agriculture Use Requirements*
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), 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 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as, plants, soil, or water is:
• Coveralls
• Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride or viton.
• Shoes plus socks
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 requirement specific to your State or Tribe, consult the State/Tribal agency responsible for pesticide regulation.

For California Greenhouse Applicators must wear:
• Full body chemical-resistant protective suit (such as barrier laminate, butyl rubber, nitrile rubber, polyvinyl chloride, or equivalent).

Reaplication Interval: Reapplications to greenhouses must be at intervals of 30 days or longer.

Greenhouse Harvesters must wear:
• Regular length gloves plus a long sleeved shirt or elbow-length (gauntlet type) gloves during the 30 days following application.

*These requirements apply only to the greenhouse uses on this label

Non-Agriculture Use Requirements**
The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standards for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries and greenhouses.
Do not allow people or pets on treated surfaces until the spray has dried.

**These requirements apply to all other non-greenhouse uses on this label
**Use Directions for Container**

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

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

**STORAGE AND DISPOSAL**

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

**Pesticide Storage:** Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry space and avoid excess heat. Carefully open containers. After partial use replace lids and close tightly. Do not put concentrate or dilute material into food or drink container.

In case of spill, avoid contact, isolate area and keep out animals. Confine spills. Call CHEMTREC (Transportation and Spills): (800) 424-9300.

To Confine Spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersion. Place damaged package in a holding container. Identify contents.

**Pesticide Disposal:** Pesticide wastes are toxic. Do not contaminate water, food or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinseate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Consult your local or state pest management authorities for details. Because the development of resistance cannot be predicted, the use of this product should conform to application instructions. A resistant strain of insect may be present or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and suspect that resistance is a reasonable cause, immediately consult your local company representative or pest management advisor for the best alternative method of control for your area.

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**Talstar® P Professional Insecticide Dilution Chart**

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<th>Applic. Rate:</th>
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the volume of water. Note: If the tank-mixture is found to be incompatible after increasing the amount of water, then the sprayer will need to be recalibrated for a higher volume application. Do not allow tank mix to stand overnight.

Formula for Determining the Active Ingredient Content of the Finished Spray Mixture: The following formula may be used to determine the percent active ingredient that is in the spray tank after mixing Talstar® P Professional Insecticide:

\[
\text{Percent Active Ingredient of spray mix} = \frac{(7.9)(\text{Fl. O z. of Talstar P Professional added to tank})}{(\text{Gallons of finished spray mix})(128)}
\]

APPLICATION DIRECTIONS ANP CONTROL

Nuisance Ants Indoors: For best results, locate and treat ant nests. Dilute 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a crack and crevice or spot treatment to areas where ants have been observed or are expected to forage. These areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices in concrete, or in corners. Particular attention should be given to treating entry points into the home or premises such as around doors and windows. When using Talstar® P Professional Insecticide in combination with baits, apply Talstar® P Professional Insecticide as instructed above, and use baits in other areas that have not been treated with Talstar® P Professional Insecticide

Nuisance Ants Outdoors: For best results, locate and treat ant nests. Apply Talstar® P Professional Insecticide to ant trails around doors and windows and other places where ants are expected to forage. Apply a perimeter treatment using either low or high volume applications described in the “ Pest Control on Outside Surfaces and Around Buildings” section of this label. The higher dilutions and/or application volumes, and/or more frequent applications, may be necessary when treating concrete surfaces for ant control. Maximum control is generally achieved using the following procedure:

The following procedure must be followed to help achieve maximum control of the pest:

1) Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and applying this dilution at the rate of one gallon per 1,000 square feet.

2) Treat porous surfaces and vegetation with high volume applications (usually 5 to 10 finished gallons per 1,000 square feet) using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per 1,000 square feet ( refer to the Talstar® P Professional Insecticide Dilution Chart).

3) For maximum residual control, dilute 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply at a rate of up to 10 gallons of dilution per 1,000 square feet.

Carpenter Ants Indoors: Dilute 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply at the rate of one gallon of dilution per 1,000 square feet as a crack and crevice or spot treatment to areas where ants are expected to forage. These areas include, but are not limited to, baseboards, in and behind cabinets, under and behind dishwashers, furnaces, refrigerators, sinks and stoves, around pipes, cracks and crevices in concrete, or in corners. Particular attention should be given to treating entry points into the home or premises such as around doors and windows. Spray or foam into cracks and crevices or drill holes and spray, mist or foam into voids where carpenter ants or their nests are present. When using Talstar® P Professional Insecticide in combination with baits, apply Talstar® P Professional Insecticide as instructed above, and use baits in other areas that have not been treated with Talstar® P Professional Insecticide

Carpenter Ants Outdoors: Apply Talstar® P Professional Insecticide to carpenter ant trails around doors and windows and other places where carpenter ants have been observed or are expected to forage. For best results, locate and treat carpenter ant nests. Apply a perimeter treatment using either low or high volume applications described in the “ Pest Control on Outside Surfaces and Around Buildings” section of this label. The higher dilutions and/or application volumes, as well as more frequent applications, may be necessary when treating concrete surfaces for carpenter ant control. Maximum control is generally achieved using the following procedure:

Follow Additional Application Restrictions for Outdoor Surface and Space Sprays under DIRECTIONS FOR USE

Applications to vertical exterior surfaces (e.g., foundations) are permitted to a maximum height of 3 feet from ground level. Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can only be treated if either 1) these sections are protected from rainfall and spray from sprinklers or 2) the spray is directed into cavities that are not accessible to termites. Do not apply to the soil beneath where firewood will be stacked at the rate of one gallon of dilution per 8 square feet.

For wood piles and stored lumber apply a 0.06% dilution. Use a hose-end sprayer or spraying can to deliver a coarse drenching spray. Treated wood can be burned as firewood or used for lumber one month after treatment. Do not use in structures.

For Ant and Fire Ant Mounds control is optimized by combining broadcast applications that will control foraging workers and newly hatched queen ants mound that contain existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Apply broadcast treatments at 0.6 to 1 fluid oz. per 1,000 square feet. Use enough finished spray to penetrate thatch or sod. Treat mounds by applying 0.5 to 1.0 fluid oz. Talstar® P Professional per mound in 1 to 2 gallons water by spraying into the mound until it is wet and treat 3 feet out around the mound. Use the higher volume for mounds larger than 12”. Treat mounds with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

Pest Control on Outside Surfaces and Around Buildings

Talstar® P Professional Insecticide will provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated. Follow Additional Application Restrictions for Outdoor Surface and Space Sprays under DIRECTIONS FOR USE

Applications to vertical exterior surfaces (e.g., foundations) are permitted to a maximum height of 3 feet from ground level. Sections of vertical exterior surfaces that abut non-porous horizontal surfaces can only be treated if either 1) these sections are protected from rainfall and spray from sprinklers or 2) they do not drain into a sewer, storm drain, or curb-side gutter (e.g., not to sections that abut driveways or sidewalks that drain into sewers). For control of Ants, Carpenter Ants, Fire Ants, Armymworms, Lady Beetle, Bees, Beetles†, Biting Flies, Boxelder Bugs, Centipedes, Chiggers, Chinch Bugs, Cicadas, Clover Mites, Cockroaches, Crickets, Cutworms, * Dichandra Flea Beetles, Earwigs, Elm Leaf Beetles, Firebrats, Fleas, Flies, Gnats, Grasshoppers, Hornets, Japanese Beetles†, Midges, Millipedes, Mosquitoes, Moths, Scorpions, Silverfish, Sod Webworms, Sowbugs (Pillbugs), Spider Mites, Spiders (including Black Widow, Brown Recluse and Hobo Spiders), Springtails, Stink Bugs, Ticks (including Brown Dog Ticks), Vinegar (Fruit) Flies, and Wasps.

“Not for use in California.

Apply Talstar® P Professional Insecticide using a 0.02 to 0.06% dilution as a broadcast or tank mix spray using low volume applications described in the “ Pest Control on Outside Surfaces and Around Buildings” section of this label. Higher application volumes, as well as more frequent applications, may be necessary when treating concrete surfaces for carpenter ant control. Maximum control is generally achieved using the following procedure:

The following procedure must be followed to help achieve maximum control of the pest:

1) Treat non-porous surfaces only in areas protected from rainfall and spray from sprinklers with low volume applications using 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply this dilution at the rate of one gallon per 1,000 square feet.

2) Treat the trunks of trees that have carpenter ant trails, or upon which carpenter ants are foraging, using 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply this dilution to thoroughly wet the bark from the base of the tree to as high as possible on the trunk.

3) Treat porous surfaces and vegetation with high volume applications (usually 5 to 10 finished gallons per 1,000 square feet) using dilutions that are calculated to deliver 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water. Use a sufficient volume and an appropriate treatment tool with a splashback guard.

To control carpenter ants inside trees, utility poles, fencemakers and similar structures that abut the inturals members, drill to locates or territory infested cavity and flood or 0.06% dilution (1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water) into the cavity using a sufficient volume and an appropriate treatment tool with a splashback guard.

To control carpenter ants that are tunneling in the soil, dilute 0.5 to 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply as a drench or inject the dilution or foam at intervals of 8 to 12 inches. Establish a uniform vertical barrier at the edges of walls, driveways or other hard surfaces where ants are tunneling beneath the surface.

To protect firewood from carpenter ants ( and termites), dilute 1.0 fluid oz. of Talstar® P Professional Insecticide per gallon of water and apply to the soil beneath where the firewood will be stacked at the rate of one gallon of dilution per 8 square feet.

For wood piles and stored lumber apply a 0.06% dilution. Use a hose-end sprayer or spraying can to deliver a coarse drenching spray. Treated wood can be burned as firewood or used for lumber one month after treatment. Do not use in structures.

Mixing Directions: For 0.02% dilution, mix 0.33 fluid oz. of Talstar® P Professional Insecticide per gallon of water. For 0.06% dilution, mix 1 fluid oz. of Talstar® P Professional Insecticide per gallon of water (0.66 fluid oz. = 2 tablespoons). Do not use household utensils to measure Talstar® P Professional Insecticide. Use the higher rate for heavy pest infestation, quicker knockdown or longer residual control. Treatment may be nec-
essary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity. Special care should be taken to prevent misapplication of Talstar® Professional Insecticide to non-target areas.

**Perimeter Treatment:** Apply to a band of soil and vegetation 6 to 10 feet wide, or to the periphery of the structure adjacent to the foundation of the structure to a height of 2 to 3 feet. Apply 0.33 to 1.0 fluid oz. of Talstar® Professional Insecticide per 1,000 square feet in sufficient water to provide adequate coverage (refer to Talstar® Professional Insecticide Dilution Chart). Treatment on the exterior of the structure that abuts non-porous horizontal surfaces, the treated areas must be protected from rainfall and spray from sprinklers or they do not drain into a sewer, storm drain, or curbside gutter (e.g. not to sections that abut driveways or sidewalks that drain into streets).

**Broadcast Treatment of Wood for the Control of Wood-inesting Insects and Nuisance Pests Outside of Structure:**

Apply a 0.06% dilution with a fan spray using a maximum pressure of 25 psi. Treatment should be made to thoroughly and uniformly cover the surface but limit excess runoff.

**To control wood-inesting insects active inside trees, utility poles and/or fence posts,** drill to find the interior infested cavity and inject a 0.06% dilution. To control Bees, Wasps, Hornets, and Yellow-Jackets, apply in late evening when insects are at rest. Aim spray at nest openings in ground, bushes and in cracks and crevices which may harbor nests, saturating nest openings and contacting as many insects as possible.

**Indoors**

**Fleas:**

Applying Talstar® P Professional Insecticide to the interior of the home can provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated.

**Bedbugs:**

Thorough application should be made to cracks and crevices where evidence of bed bugs occurs. This includes bed frames, box springs, inside empty dressers and clothes closets, and carpet edges, high and low wall moldings and wallpaper edges. Do not use this product on bed linens, pillows, mattresses or clothes. Remove all clothes and other articles from dressers or clothes closets before application. Allow all treated areas to thoroughly dry before use. Not recommended for use as sole pest control against bed bugs. If evidence of bedbugs is found on mattresses, use products approved for this use.

**Apply a 0.06% dilution (1 fluid oz. per gallon of water) for residual pest control in buildings and structures and on modes of transport.** Apply either as a crack and crevice, pinstreak, spot, coarse, low pressure spray (25 psi or less) or with a paint brush.

**COCKROACHES, CRICKETS, FIREBRATS, FLIES, GNATS, MOths, MOSQUITOES, SCorpIONS, SILVERFISH, SPIDers, Ticks**

Applying Talstar® Professional Insecticide will provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated.

**Apply as a coarse, low pressure spray to areas where these pests hide, such as baseboards, corners, storage areas, closets, around water pipes, doors and windows, attics and eaves, behind and under refrigerators, cabinets, sinks, furnaces, stoves, the underside of shelves, drawers, and similar areas. Pay particular attention to cracks and crevices.**

**ANTS:**

Apply to any trails, around doors and windows and other places where ants may be found.

**Fleas:**

Apply as a coarse, low pressure spot or crack and crevice treatment to areas frequented by pets, such as under bedding, rugs, next to furniture. Do not apply Talstar® Professional Insecticide directly to pets. Treatment must be dry before pet re-entry. Vacuum prior to treatment.

**BOXELDER BUGS, CENTPEDES, CICADAS, EARWIGS, BEETLES, MILIPEDES, PILLBUGS, SOWBUGS, SPRINGTAILS, AND STINK BUGS:**

Apply around doors and windows and other places where these pests may be found. Where they may enter premises. Check damp areas and drains for pest access. Spray baseboards, storage areas and other locations.

**SPIDER MITES:**

Treat houseplants thoroughly but do not allow run off to occur. Make sure to treat underside of leaves.

**BEES AND WASPS:**

To control Bees, Wasp, Hornets, and Yellow-Jackets apply a 0.06% dilution. Application should be made in the late evening when insects are at rest. Thoroughly spray nest and entrance and surrounding areas where insects alight. Spray liberally into hiding and breeding places, especially under attic rafters, contacting as many insects as possible. Treatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed insect activity.

**Precautions:**

Do not apply dilution until location of heat pipes, ducts, water and sewer lines and electrical conduits are known and identified. Caution: Do not be tempted to inject Talstar® Professional Insecticide into these structural elements. During any overhead application to overhead interior areas of structures, cover surfaces below with plastic sheeting or similar materials.
Restrictions:
Do not apply into electrical fixtures, switches, or sockets.
In the home, all food processing surfaces and utensils in the treatment area should be covered during treatment or thoroughly washed before re-use. Remove pets, birds, and cover aquariums before spraying. Do not permit humans or pets to contact treated surfaces until the spray has dried.
Wear protective clothing, unvented goggles, gloves and respirator, when applying to overhead areas or in poorly ventilated areas. Avoid touching sprayed surfaces until spray has completely dried.

For CONTROL OF STORED PRODUCTS PESTS
Including Indian Meal Moths, Rice Moths, Tobacco Moths, Flour Beetles, Lesser Grain Borers, Merchant Grain Beetles, Sawtooth Grain Beetles, Grain Weevils, Warehouse Beetles, Cigarette Beetles, and Deresmild Beetles, Psocids, and other similar pests. Inspect to locate and remove infested food sources, remove or cover any food items or food serving dishes or utensils prior to treatment. Apply Talstar P Professional using a 0.02 to 0.06% dilution, Apply as a coarse, low pressure spray to areas where these pests hide, such as baseboards, corners, storage areas, and cracks in walls and ceilings. Apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet. Use sufficient finished volume to penetrate leaf litter, thatch, mulch, or porous surfaces. To control bed bugs, mites and ticks in animal facilities, treat cracks/crevices, walls, posts, nest boxes, and mobile side curtains. Do not apply Talstar P Professional Insecticide directly to animals. To control bedbugs, use 0.5 to 1 fl. oz per 1000 sq. ft. Use the higher rate of application on painted and non-porous surfaces.
For adult fly control in and around animal facilities, spray application should target areas where flies will rest, such as the ceiling, rafters, and trusses. Apply water to treat windows and exterior walls and, as necessary, doors, fences, and vegetation. Talstar P Professional Insecticide dilution may be sprayed on manure areas where fly larvae are abundant and the area cannot be cleaned.
For unoccupied areas of poultry/livestock facilities and kennels, apply to floors, vertical and overhead surfaces where crawling or flying insect pests may be present. Feeders, waterers, and feed carts should be covered before application to prevent contamination. Do not apply to milk. Pay attention to animal areas including stanchions, pipes, windows, doors, and areas where insect pests hide or congregate. Exterior applications to walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. Apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet. Use sufficient finished volume to penetrate leaf litter, thatch, mulch, or porous surfaces.

For food areas of food/feed handling establishments as a surface, spot or crack and crevice treatment in food and storage warehouses and stores. Apply to all areas that may harbor pests, including under and between pallets, bins, and shelves. Do not apply directly to food, grain bins (interior), or animals.

FOOD/FEED HANDLING ESTABLISHMENT APPLICATIONS
Applications of this product are permitted in both food/feed and non-food areas of food/feed handling establishments as a surface, spot, or crack and crevice treatment.
Talstar P Professional Insecticide will provide up to 1 month residual control of house flies. Length of residual control is dependant upon rate and surface treated.

Food/feed handling establishments are defined as places other than private residences in which food/feed is produced, processed, prepared or served. Included also are areas for receiving, storing, packing, and distributing food/feed. Warehouses and Grocery/Pet Stores: Talstar P Professional Insecticide dilution may be applied as a surface, spot or crack and crevice treatment in food and storage warehouses and stores. Apply to all areas that may harbor pests, including under and between pallets, bins and shelves. Do not apply directly to food, grain bins (interior), or animals.

Underground Services
Specific Pest Control Applications
ANIMAL CONFINEMENT FACILITIES, LIVESTOCK PREMISES, CONFINED ANIMAL FEEDING OPERATIONS, AND KENNELS
Controls biting flies, fly-breediing fleas, fleas, litter beetles, hide beetles, bed bugs, mice, and ticks. Apply as a surface (including directed spray) and in cracks and crevices. When necessary, both interior and exterior perimeter applications are made in and around the livestock, poultry, or pet housing structures. Normal cleaning practices of the structure also must be followed along with applications of Talstar P Professional Insecticide to effectively control crawling and flying insect pests.
For occupied areas of poultry/livestock facilities and kennels, apply to indoor cracks and crevices only. Exterior applications to walls and foundation perimeters can help prevent interior infestations of crawling insect pests. Apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet. For unoccupied areas of poultry/livestock facilities and kennels, apply to floors, vertical and overhead surfaces where crawling or flying insect pests may be present. Feeders, waterers, and feed carts should be covered before application to prevent contamination. Do not apply to milk. Pay attention to animal areas including stanchions, pipes, windows, doors, and areas where insect pests hide or congregate. Exterior applications to walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. Apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet. Use sufficient finished volume to penetrate leaf litter, thatch, mulch, or porous surfaces.
To control bed bugs, mites and ticks in animal facilities, treat cracks/crevices, walls, posts, nest boxes, and mobile side curtains. Do not apply Talstar P Professional Insecticide directly to animals. To control bedbugs, use 0.5 to 1 fl. oz per 1000 sq. ft. Use the higher rate of application on painted and non-porous surfaces.
For adult fly control in and around animal facilities, spray application should target areas where flies will rest, such as the ceiling, rafters, and trusses. Apply water to treat windows and exterior walls and, as necessary, doors, fences, and vegetation. Talstar P Professional Insecticide dilution may be sprayed on manure areas where fly larvae are abundant and the area cannot be cleaned.
For unoccupied areas of poultry/livestock facilities and kennels, apply to floors, vertical and overhead surfaces where crawling or flying insect pests may be present. Feeders, waterers, and feed carts should be covered before application to prevent contamination. Do not apply to milk. Pay attention to animal areas including stanchions, pipes, windows, doors, and areas where insect pests hide or congregate. Exterior applications to walls and foundation perimeters can help prevent interior infestations of flying and crawling insect pests. Apply Talstar P Professional Insecticide at a rate equivalent to 0.33 to 1 fl. oz per 1000 sq. feet. Use sufficient finished volume to penetrate leaf litter, thatch, mulch, or porous surfaces.
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Restrictions:
Do not treat electrically active underground services.

**Posts, Poles, and Other Constructions**

Create an insecticidal barrier in the soil around wooden constructions such as signs, fences and landscape ornamentation by applying a 0.06% dilution.

Previously installed poles and posts may be treated by sub-surface injection or treated by gravity-flow through holes made from the bottom of the pole or post. Treat on all sides to treat a continuous insecticidal barrier around the pole. Use 1 gallon of dilution per foot of depth for poles and posts less than six inches in diameter. For larger poles, use 1.5 gallons of dilution per foot of depth. Apply to a depth of 6 inches below the bottom of the wood. For larger constructions, use 4 gallons per 10 linear feet per foot of depth.

**Treatment of Wood-in-Place for Control of Wood-Infesting Insects**

(Localized Areas in Structure) For the control of insects such as Termites, Ants, Carpenter Ants, and wood-infesting beetles such as Old House Borer and Powder Post in localized areas of infested wood and around structures, apply a 0.06% dilution to voids and galleries to prevent any arthropods. This treatment is not intended as a substitute for termite sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. All pesticide handlers (mixers, loaders and applicators) must wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves. A respiratory protection device must be worn when working in non-ventilated space or when applying termicide by rodding or simulating water application. In addition, all pesticide handlers must wear a respiratory protection device when working in a non-ventilated space or when applying termicide by rodding or sub-slab injection.

*Use one of the following NIOSH approved respirator with any R, P, or HE filter or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.*

When treating adjacent to an existing structure, the applicator must check the area to be treated, and immediately adjacent areas of the structure, for visible and accessible cracks and holes to prevent any termite entry. This treatment is not intended as a substitute for termite control in soil and foundation where wood is vulnerable. Paint on, spray, and fan spray applications may also be used. Plastic sheeting must be placed immediately below overhead areas that are spot treated except for soil surfaces in crawl spaces. Application may be made to inaccessible areas by drilling, and then injecting dilution with a crack and crevice injection tool into the damaged wood or void spaces. This type of application is not intended to be a substitute for soil treatment, mechanical alteration or fumigation to control extensive infestation of wood-infesting insects.

Termite carton nests in trees or building voids may be injected with 0.06% dilution. Multiple injection points to varying depths may be necessary. It is desirable to physically remove carton nest material from building voids when such nests are found.

**Termite Control in Crawlspace and Post and Other Wood Structures**

*Note:* Crawl spaces are considered inside of the structure.

**Critical Areas:** Critical areas include areas where the foundation is penetrated by utility services, cracks and expansion joints, bath traps and areas where cement constructions have been poured adjacent to the foundation such as stairs, patios and slab additions.

**Structures with Wells/Cisterns Inside Foundations**

Structures that contain wells or cisterns within the foundation of a structure can only be treated using the following techniques:

1. Do not treat soil while it is beneath or within the foundation or along with the perimeter of the structure that contains a well or cistern. The treated backfill technique is described as follows:
   a. Trench and remove soil to be treated onto heavy plastic sheeting or similar material or into a wheelbarrow.
   b. Treat the soil at the rate of 4 gallons of dilution per 10 linear feet per foot of depth of the trench, or 1 gallon per 1.0 cubic feet of soil. See “Mixing Directions section of the label. Mix thoroughly into the soil taking care to contain the liquid and prevent runoff or spillage.
   c. After the treated soil has absorbed the dilution, replace the soil into the trench.

2. Treat infested and/or damaged wood in place using an injection technique such as described in the “Control of Wood Infesting Insects” section of this label.

**Structures with Adjacent Wells/Cisterns and/or Other Water Bodies**

Applicators must inspect all structures with nearby water sources such as wells, cisterns, surface ponds, streams, and other bodies of water and evaluate, at a minimum, the treatment recommendations listed below prior to making an application:

1. Prior to treatment, if feasible, expose the water pipe(s) coming from the well to the structure, if the pipe(s) enter the structure within 3 feet of grade.
2. Prior to treatment, applicators are advised to take precautions to limit the risk of applying the termicide into subsurface drains that could empty into any bodies of water. These precautions include evaluating whether application of the termicide to the top of the footer may result in contamination of the subsurface drain. Factors such as depth to the drain system and soil type and degree of compaction should be taken into account in determining the depth of treatment.
3. When appropriate (i.e., on the water side of the structure), the treated backfill technique (described above) can also be used to minimize off-site movement of termicide.

Prior to using this technique near wells or cisterns, consult state, local or federal agencies for information regarding approved treatment practices in your area.

**Application Rate**

Use a 0.06% dilution for subterranean termites. For other pests on the label use specific listed rates.

**Mixing Directions**

Mix the termitcide use dilution in the following manner: Fill tank 1/4 to 1/3 full. Start pump to begin by-pass agitation and place end of treating tool in tank to allow circulation through hose. Add appropriate amount of Talstar® P Professional Insecticide. Add remaining amount of water. Let pump run and allow recirculation through the hose for 2 to 3 minutes.

Talstar® P Professional Insecticide may also be mixed into full tanks of water, but requires substantial agitation to ensure uniformity of the dilution.

To prepare a 0.06% water dilution, ready to use, dilute 3 quarts of Talstar® P Professional Insecticide with 99.25 gallons of water.

**Mixing:**

For the desired application rate, use the chart below to determine the amount of Talstar® P Professional Insecticide for a given volume of finished dilution.
**Volume dispersal of the termicide in the soil.**

If notice is provided to the contractor or the person commissioning the work, the volume of the 0.12% dilution may be reduced by 1/2 the labeled volume. See the establishment of vertical and/or horizontal insecticidal barriers using 0.06% dilution of Talstar® P Professional Insecticide.

**Horizontal Barriers**

Create a horizontal barrier wherever treated soil will be covered by a slab, such as footing trenches, slab floors, carpents, and the soil beneath stairs and crawl spaces.

For a 0.06% rate apply 1 gallon of dilution per 10 square feet, or use 1 fluid ounce of Talstar® P Professional Insecticide per 10 square feet in sufficient water (no less than 1/2 gallon or more than 2 gallons) to provide thorough and continuous coverage of the area being treated. If the fill is washed gravel or another coarse material, it is important that a sufficient amount of dilution be used to reach the soil substrate beneath the coarse fill.

Applications shall be made by a low pressure spray (less than 50 p.s.i.) using a coarse spray nozzle. If slab will not be poured the same day as treatment, cover treated soil with a water-proof barrier such as polyethylene sheeting. This is not necessary if foundation walls have been installed around the treated soil.

**Vertical Barriers**

Vertical barriers must be established in areas such as around the base of buildings, plumbing, utility entrances, back-filled soil against foundation walls and other critical areas.

For a 0.06% rate, apply 4 gallons of dilution per 10 linear feet per foot of depth or 4 fluid ounces of Talstar® P Professional Insecticide 10 linear feet per foot of depth from grade to top of footing in sufficient water (not less than 2 gallons or more than 8 gallons) to ensure complete coverage.

- When trenching and rodding into the trench, or trenching, it is important that dilution reaches the top of the footing. Rod holes must be spaced so as to achieve a continuous termitecidal barrier, but in no case more than 12 inches apart.
- Care should be taken to avoid soil wash-out around the footing.
- Trenches need not be wider than 6 inches. Dilution should be mixed with the soil as it is being replaced in the trench.
- For a monolithic slab, an inside vertical barrier may not be required.

Treat hollow block voids at a rate of 2 gallons of dilution per 10 linear feet so that the dilution will reach the top of the footing.

Prior to each application, applicators must notify the general contractor, construction superintendent, or similar responsible party, of the intended termitecidal application and intended sites of application and instruct the responsible person to notify construction workers and other individuals to leave the area to be treated during application and until the termicide is absorbed into the soil.

**Post Construction Subterranean Termite Treatment**

Use a 0.06% dilution for post-construction treatment. Post-construction soil applications shall be made by injection, trenching and rodding into the trench or trenching, or coarse fan spray with pressures not exceeding 25 p.s.i. at the nozzle. Care should be taken to avoid soil wash-out around the footing.

Do not apply dilution until location of wells, radiant heat pipes, water and sewer lines and electrical conduits are known and identified. Caution must be taken to avoid puncturing and injection into these elements.

**Foundations:** For applications made after the final grade is installed, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Effective pre-construction subterranean termite control is achieved by the establishment of vertical and/or horizontal insecticidal barriers using 0.06% dilution of Talstar® P Professional Insecticide.

**Amount of Talstar® P Professional Insecticide**

<table>
<thead>
<tr>
<th>Dilution Concentration</th>
<th>Amount of Talstar P Professional</th>
<th>Amount of Water</th>
<th>Desired Gallons of Finished Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.06%</td>
<td>1 fl oz.</td>
<td>127.2 fl oz.</td>
<td>1</td>
</tr>
<tr>
<td>0.12%*</td>
<td>2 fl oz.</td>
<td>126 fl oz.</td>
<td>1</td>
</tr>
</tbody>
</table>

**Common units of measure:**

- 1 pint = 16 fluid ounces (fl oz.)
- 1 quart = 2 pints = 4 cups = 32 fluid ounces (fl oz.)

*For termite applications, only use this rate in conjunction with the application volume adjustments as listed in the section below or in the foam and soil rodding sections.

**Application Volume:** To provide maximum control and protection against termite infestation apply the specified volume of the finished water dilution and active ingredient as set forth in the directions for use section of this label. If soil will not accept the labeled application volume, the volume may be reduced provided there is a corresponding increase in concentration so that the amount of active ingredient applied to the soil remains the same.

**Note:** Large reductions of application volume reduce the ability to create a horizontal barrier. Variance is allowed when volume and concentration are consistent with label directed rates and a continuous barrier can still be achieved.

Where desirable for pre and post construction treatments, the volume of the 0.12% dilution may be reduced by 1/2 the labeled volume. See Volume Adjustment Chart below.

**Volume Adjustment Chart**

<table>
<thead>
<tr>
<th>Rate (% dilution)</th>
<th>0.06%</th>
<th>0.12%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume allowed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horizontal (gallons dilution/10 ft)</td>
<td>1.0 gallons</td>
<td>0.5 gallons</td>
</tr>
<tr>
<td>Vertical (gallons dilution/10 lin. ft)</td>
<td>4.0 gallons</td>
<td>2.0 gallons</td>
</tr>
</tbody>
</table>

**After Treatment:** All holes in commonly occupied areas into which Talstar® P Professional Insecticide has been applied must be plugged. Plugs must be of a non-cellulose material or covered by an impervious, non-cellulose material.

**Pre-Construction Subterranean Termite Treatment**

The treatment site must be covered prior to a rain event in order to prevent run-off of the pesticide into non-target areas.

The applicator must either cover the soil him/herself or provide written notification of the above requirement to the contractor on site and to the person commissioning the application (if different than the contractor). If notice is provided to the contractor or the person commissioning the application, then they are responsible under FIFRA to ensure that:

1. If the concrete slab cannot be poured over the treated soil within 24 hours of application the treated soil is covered with a waterproof covering such as polyethylene sheeting, and
2. The treated soil is covered if precipitation is predicted to occur before the concrete slab is scheduled to be poured.

Do not treat soil that is water-saturated or frozen.

Do not treat when raining.

Do not allow treatment to runoff from the target area.

Do not apply within 10 feet of storm drains. Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or ponds; estuaries; and commercial fish farm ponds).

Do not make on-grade applications when sustained wind speeds are above 10 mph (at application site) at nozzle end height.

**Pre-Construction Treatment:** Do not apply at a lower dosage and/or concentration as specified in this label for applications prior to the installation of the finished grade.

When treating foundations deeper than 4 feet, apply the termicide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

Treat along the outside of the foundation and where necessary beneath the slab on the inside of foundation walls. Treatment may also be required beneath the slab along both sides of interior footing-supported walls, the side of interior partitions and along all cracks and expansion joints. Horizontal barriers may be established where necessary by long-rodding or by grid pattern injection vertically through the slab.
a. Drill holes in the slab and/or foundation to allow for the application of a continuous insecticidal barrier.
b. For shallow foundations (1 foot or less) dig a narrow trench approximately 6 inches wide along the outside of the footing. Do not dig below the bottom of the footing. The dilution shall be applied to the trench and soil at the rate prescribed for four feet of depth. The trench holes must be spaced to provide a continuous insecticidal barrier, but in no case more than 12 inches apart.
c. After the treated soil has absorbed the liquid dilution, replace the soil taking care to prevent liquid from running off the liner.
d. Exposed soil and wood in bath traps may be treated with a 0.06% dilution.

e. For foundations deeper than 1 foot follow rates for basement.

Basements

Where the footing is greater than 1 foot of depth from grade to the bottom of the foundation, application must be made by trenching and rod-ding into the trench, or trenching at the rate of 4 gallons of dilution per 10 linear feet per foot of depth. When the footing is more than four feet below grade, the application shall be made to the trench and soil at the rate prescribed for four feet of depth. The trench holes must be spaced to provide a continuous insecticidal barrier, but in no case more than 12 inches apart. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. However, in no case should a structure be treated below the footer. Sub-slab injection may be necessary along the inside of foundation walls, along cracks and partition walls, around pipes, conduits, piers, and along both sides of interior footing-supported walls.

Accessible Crawl Spaces: For crawl spaces, apply vertical termicide barriers at the rate of 4 gallons of dilution per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than 4 feet below grade, to a minimum depth of 4 feet. Apply by trenching and rod-ding into the trench, or trenching and rodding at the rate prescribed for four feet of depth from grade to the bottom of the footing. Mix the dilution thoroughly into the soil taking care to prevent liquid from running off the liner.
d. After the treated soil has absorbed the liquid dilution, replace the soil in the trench.

Attention: When applying Talstar® Professional Insecticide in a confined area, the user should wear approved goggles and a respirator approved by NIOSH during application.

Foam Applications

Talstar® P Professional Insecticide dilution, from 0.06 to 0.12% may be converted to a foam with expansion characteristics from 2 to 40 times.

Localized Application: The dilution may be converted to a foam and the foam used to control or prevent termite infestations.

Depending upon the circumstances, foam applications may be used alone or in combination with liquid dilution applications. Applications may be made behind veneers, piers, chimney bases, into rubble foundations, into block voids or structural voids, under slabs, stoops, porches, or to the soil in crawlspaces, and other similar voids.

Foam and liquid application must be consistent with volume and active ingredient instructions in order to ensure proper application has been made. The volume and amount of active ingredient is essential to an effective treatment. At least 75% of the labeled liquid dilution volume of product must be applied, with the remaining percent delivered to appropriate areas using foam application. Refer to label and use recommendations of the foam manufacturer and the foaming equipment manufacturer.

Foam applications are generally a good supplement to liquid treatments in difficult areas, but may be used alone in difficult spots.

Application Under Slabs or to Soil in Crawlspace to Prevent or Control Subterranean Insects

Application may be made using Talstar® P Professional Insecticide foam alone or in combination with liquid dilution. The equivalent of at least 4 gallons (4 ounces of Talstar® Professional Insecticide concentrate) of 0.06% dilution per 10 linear feet (vertical barrier), or at least 1 gallon (1 ounce of Talstar® P Professional Insecticide concentrate) of 0.06% dilution per 10 square feet (horizontal barrier) must be applied either as dilution, foam, or a combination of both. For a foam only application the Talstar® Professional Insecticide concentrate is sufficient foam concentration and foam volume to deposit 4 ounces of concentrate per 10 linear feet or 1 ounce of concentrate per 10 square feet. For example, 2 gallons of 0.12% dilution generated as foam to cover 10 linear feet is equal to the application of 4 gallons of 0.06% dilution per 10 linear feet.

Sand Barrier Installation and Treatment

Termites can build mud tubes over treated surfaces as long as they have access to untreated soil and do not have to move Talstar® Professional Insecticide treated soil. Susceptible cracks and spaces can be filled with builder’s or play box sand and the sand treated with Talstar® Professional Sand. The sand should be treated as soil following the termite rate listed on the Talstar® P Professional Insecticide label.

Retreatment for subterranean termites can only be performed if there is clear evidence of reinfestation or disruption of the barrier due to construction, excavation, or landscaping and/or evidence of the breakdown of the termite barrier in the soil. These vulnerable or reinfested areas may be retreated in accordance with application techniques described in this product’s labeling. The timing and type of these retreatments will vary depending on factors such as termite pressure, soil types, soil conditions and other factors which may reduce the effectiveness of the barrier.

Annual retreatment of the structure is prohibited unless there is clear evidence that reinfestation or barrier disruption has occurred.

APPLICATION IN CONJUNCTION WITH THE USE OF TERNITE BAITS

As part of the integrated pest management (IPM) program for termite control, Talstar® P Professional Insecticide may be applied to critical areas of the structure including plumbing and utility entry sites, bath traps, expansion joints, foundation cracks and areas with known or suspected infestations at a rate of 0.06% as a spot treatment or complete barrier treatment. Applications may be made as described in the Postconstruction treatment section of this label.

Note: When treating behind veneer care should be taken not to drill beyond the veneer. If concrete blocks are behind the veneer, both the blocks and the veneer may be drilled and treated at the same time.

Not for use in voids insulated with rigid foam insulation.

Excavation Technique: If treatment must be made in difficult situations, along fieldstone or rubble walls, along faulty foundation walls, and around pipes or utility lines which lead downward from the structure to a well or pond, application may be made in the following manner:

a. Trench and remove soil to be treated onto heavy plastic sheeting or similar material.
b. Treat the soil at the rate of 4 gallons of dilution per 10 linear feet per foot of depth of the trench. Mix the dilution thoroughly into the soil taking care to prevent liquid from running off the liner.
c. After the treated soil has absorbed the liquid dilution, replace the soil in the trench.
**TERMITIC CONTROL (ABOVE GROUND ONLY)**

The purpose of the applications described below are to kill termite workers or winged reproductives that may be present at the time of treatment. These applications are intended as supplements to, and not substitutes for, mechanical alteration, soil treatment or foundation treatment.

To control exposed workers and winged reproductive termites in localized areas, dilute 1.0 fluid oz. of Talstar® Professional Insecticide per gallon of water and apply as a coarse fan spray at the rate of one gallon per 1,000 square feet to attics, crawl spaces, unfinished basements and other void areas. Treat swarming termites as well as the areas in which they congregate.

To control above-ground termites in localized areas of infested wood, dilute 1.0 fluid oz. of Talstar® Professional Insecticide per gallon of water and apply as a liquid or foam using a pointed injection tool. Multiple injection points and varying depths of injection may be necessary to achieve control. When possible, the carton nest material should be removed from the building void after treatment.

**LAWN**

Apply Talstar® Professional Insecticide as a broadcast treatment. Use application volumes of up to 10 gallons per 1,000 square feet to get uniform coverage when treating dense grass foliage. For low volume applications, less than 2 gallons/1,000 square feet, immediate irrigation of treated area with at least 0.25 inches of water following application will ensure efficacy of sub-surface pests such as, but not limited to, Mole Crickets. Recommended.

**LAWN APPLICATION RATES**

The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Talstar® Professional Insecticide may be applied at up to 1 fl. oz. per 1,000 square feet to control each of the pests listed in this table. The higher application rates should be used when maximum residual control is desired or heavy pest populations occur.

<table>
<thead>
<tr>
<th>Pest</th>
<th>Application Rate Talstar® Professional Insecticide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armyworms</td>
<td>0.18 - 0.25 fluid oz. per 1,000 sq. ft.</td>
</tr>
<tr>
<td>Cutworms</td>
<td></td>
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<tr>
<td>Sod Webworm</td>
<td></td>
</tr>
<tr>
<td>Annual Bluegrass Weevil</td>
<td>0.25 - 0.5 fluid oz. per 1,000 sq. ft.</td>
</tr>
<tr>
<td>(Hyperodes) (Adult)⁷</td>
<td></td>
</tr>
<tr>
<td>Banks Grass Mite</td>
<td></td>
</tr>
<tr>
<td>Billbug (Adult)³</td>
<td></td>
</tr>
<tr>
<td>Black Turfgrass Athaenius (Adult)⁴</td>
<td></td>
</tr>
<tr>
<td>Centipedes</td>
<td></td>
</tr>
<tr>
<td>Earwigs</td>
<td></td>
</tr>
<tr>
<td>Fleas (Adult)⁸</td>
<td></td>
</tr>
<tr>
<td>Grasshoppers</td>
<td></td>
</tr>
<tr>
<td>Leafhoppers</td>
<td></td>
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<tr>
<td>Mealybugs</td>
<td></td>
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<tr>
<td>Millipedes</td>
<td></td>
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<tr>
<td>Mites</td>
<td></td>
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<tr>
<td>Pillbugs</td>
<td></td>
</tr>
<tr>
<td>Sowbugs</td>
<td></td>
</tr>
<tr>
<td>Crane Flies²</td>
<td>0.5 fluid oz. per 1,000 sq. ft.</td>
</tr>
<tr>
<td>Ants</td>
<td>0.5 - 1.0 fluid oz. per 1,000 sq. ft.</td>
</tr>
<tr>
<td>Chinch Bugs (Adult)⁵</td>
<td></td>
</tr>
<tr>
<td>Fleas (Larvae)⁷</td>
<td></td>
</tr>
<tr>
<td>Imported Fire Ants⁸</td>
<td></td>
</tr>
<tr>
<td>Japanese Beetle (Adult)</td>
<td></td>
</tr>
<tr>
<td>Mole Cricket (Adult)⁹</td>
<td></td>
</tr>
<tr>
<td>Mole Cricket (Nymph)¹⁰</td>
<td></td>
</tr>
<tr>
<td>Slink Bugs</td>
<td></td>
</tr>
<tr>
<td>Ticks³</td>
<td></td>
</tr>
</tbody>
</table>

**Comments**

**Armyworms, Cutworms and Sod Webworms:** To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application. If the grass area is being maintained at a mowing height of greater than 1 inch, then higher application rates (Up to 1 fluid oz. per 1,000 square feet) may be required during periods of high pest pressure.

**Annual Bluegrass Weevil (Hyperodes) adults:** Applications should be timed to control weevils as they leave their overwintering sites and congregate in grass areas. This movement generally begins when Forsythia is in full bloom and includes when flowering dogwood (Cornus florida) is in full bloom. Consult your State Cooperative Extension Service for specific information regarding application timing.

**Billbug adults:** Applications should be made when adult billbugs are first observed during April and May. Degree day models have been developed to optimize application timing. Consult your State Cooperative Extension Service for information specific to your region. In temperate regions, spring applications target the first generation adults, while similar treatments are used to control second generation adults during the late summer.

**Black Turfgrass Athaenius adults:** Applications should be made during May and July to control the first and second generation of black turfgrass athaenius, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (Spiraea vanhouttei) and horse chestnut (Aesculus hippocastanum). The July application should be timed to coincide with the blooming of Rose of Sharon (Hibiscus syriacus).

**Chinch Bugs:** Chinch Bugs infest the base of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch Bugs can be one of the most difficult pests to control in grasses and the higher application rates (Up to 1 fluid oz. per 1,000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

**Mites:** To ensure optimum control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application five to seven days after the first, may be necessary to achieve acceptable control.

**Flea larvae:** Flea larvae develop in the soil of shaded areas that are accessible to other animals. Use a higher volume of application when treating these areas to ensure penetration of the insecticide into the soil. Note: if the lawn area is being controlled with Talstar® Professional Insecticide at 0.25 fluid oz. per 1,000 square feet for adult flea control, then the flea larval application rate may be achieved by increasing the application volume two-to-four fold.

**Imported Fire Ants:** Control will be optimized by combining broadcast applications that will control foraging workers and newly mated fly-in queens with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Apply broadcast treatments at 0.6 to 1 fluid oz. per 1,000 square feet. Use enough water to thoroughly wet the ground volume to penetrate thatch or sod. Treat mounds by applying 1 oz Talstar Professional per mound in 1 to 2 gallons of water by spraying the mound until it is wet and 10-12 feet out around the mound. A second application may be necessary from 12 to 18 inches larger than the first. Treat mounds with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

**Mole Cricket adults:** Achieving acceptable control of adult mole crickets is difficult because preferred grass areas are subject to continuous invasion during the early spring by this extremely active stage. Applications should be made as late in the day as possible and should be watered in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Treat mounds at least 0.6 feet out around the mound. Use enough water to thoroughly wet the ground volume to penetrate thatch or sod. Use a higher volume application with mound drenches that will control existing colonies. If the soil is not moist, then it is important to irrigate before application or use a high volume application. Apply broadcast treatments at 0.6 to 1 fluid oz. per 1,000 square feet. Use enough water to thoroughly wet the soil volume to penetrate thatch or sod. Treat mounds by applying 1 oz Talstar Professional per mound in 1 to 2 gallons of water by spraying the mound until it is wet and 10-12 feet out around the mound. A second application may be necessary from 12 to 18 inches larger than the first. Treat mounds with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

**Mole Cricket nymphs:** Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are most susceptible to insecticides and they are located near the soil surface where the insecticide is applied. Applications should be made during May and July to control the first and second generation of black turfgrass athaenius, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (Spiraea vanhouttei) and horse chestnut (Aesculus hippocastanum). The July application should be timed to coincide with the blooming of Rose of Sharon (Hibiscus syriacus).

**Mole Crickets (Mole Cricket nymphs):** Grass areas that received intense adult mole cricket pressure in the spring should be treated immediately prior to peak egg hatch. Optimal control is achieved at this time because young nymphs are most susceptible to insecticides and they are located near the soil surface where the insecticide is applied. Applications should be made during May and July to control the first and second generation of black turfgrass athaenius, respectively. The May application should be timed to coincide with the full bloom stage of Vanhoutte spiraea (Spiraea vanhouttei) and horse chestnut (Aesculus hippocastanum). The July application should be timed to coincide with the blooming of Rose of Sharon (Hibiscus syriacus).

**Ticks (including ticks that may transmit Lyme Disease and Rocky Mountain Spotted fever):** Do not make spot applications. Treat the entire area where exposure to ticks may occur. Use higher spray volumes when treating areas with dense ground cover or heavy leaf litter. Ticks may be reintroduced from surrounding areas on host animals. Retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Repeat application is necessary only if there are signs of renewed activity. Limit repeat application to no more than once per seven days.

**Deer ticks (bodess spp.):** have a complicated life cycle that ranges over a two year period and involves four life stages. Applications should be made in the late fall and/or early spring to control adult ticks that are usually located on brush or grass above the soil surface and in mid to late spring to control larvae and nymphs that reside in the soil and leaf litter.

**American dog ticks:** may be a considerable nuisance in suburban settings, particularly where homes are built on land that was previously field land or forests. These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Applications should be made as necessary from mid-spring to early fall to control adult ticks. Repeat application is necessary only if there are signs of renewed activity. Limit repeat application to no more than once per seven days.

**Crane Flies:** Treatments can be made to control early to mid-season larvae (approximately August – February) as they feed on plant crops. Treatments made to late-season larvae (approximately March, April) may only provide suppression.
Calculating Dilution Rates using the Ornamental and Greenhouse Application Rates Table and the Talstar® P Professional Insecticide Dilution Chart (page 3):

Identify the least susceptible target pest (the pest requiring the highest application rate for control).  
Select an application rate in terms of fluid oz. of Talstar® P Professional Insecticide.  
Identify your application volume and how much spray mix you want to prepare.  
Use the Dilution Chart to determine the appropriate volume of Talstar® P Professional Insecticide that must be mixed in your desired volume of water.

ORNAMENTALS AND TREES
For ornamental applications (including but not limited to trees, shrubs, ground covers, bedding plants, and foliage plants) apply 0.125 to 1.0 fluid oz. of Talstar® P Professional Insecticide per 1,000 square feet or 5.4 to 43.5 fl. oz. per 100 gallons. Talstar® P Professional Insecticide may be diluted and applied in various volumes of water providing that the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz per 100 gallons.) is not exceeded. Talstar® P Professional Insecticide may be applied through low volume application equipment by dilution with water or other carriers and providing that the maximum label rate (1.0 fluid oz. per 1,000 square feet or 43.5 fl. oz per 100 gallons) is not exceeded.

Apply the specified application rate as a full coverage foliar spray. Repeat treatment as necessary to achieve control using higher application rates as pest pressure & foliage area increases. Limit repeat application to no more than once per seven days.

Certain cultivars may be sensitive to the final spray solution. A small number of plants should be treated and observed for one week prior to application to the entire planting.

Use of an alternate class of chemistry in a treatment program is recommended to prevent or delay pest resistance.

GREENHOUSES AND INTERIORSCAPES
Use Talstar® P Professional Insecticide, either alone or tank mixed with other products, including insect growth regulators, to control a wide spectrum of insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in greenhouses and interiorscapes including hotels, shopping malls, office buildings, etc.

Calculating Dilution Rates using the Ornamental and Greenhouse Application Rates Table and the Talstar® P Professional Insecticide Dilution Chart (page 3): The following steps should be taken to determine the appropriate dilution of Talstar® P Professional Insecticide that is required to control specific pests:

1. Identify the least susceptible target pest (the pest requiring the highest application rate for control).
2. Select an application rate in terms of fluid oz. of Talstar® P Professional Insecticide.
3. Identify your application volume and how much spray mix you want to prepare.
4. Use the Dilution Chart to determine the appropriate volume of Talstar® P Professional Insecticide that must be mixed in your desired volume of water.

ORNAMENTAL and GREENHOUSE APPLICATION RATES
The application rates listed in the following table will provide excellent control of the respective pests under typical conditions. However, at the discretion of the applicator, Talstar® P Professional Insecticide may be applied at up to 1 fluid oz. per 1,000 square feet (43.5 fl. oz. per 100 gallons) to control each of the pest listed in this Table. The higher application rates should be used when maximum residual control is desired.

Apply the specified rate as a full coverage foliar spray. Repeat as necessary to achieve control using higher rates as pest pressure and foliage increases.

Certain cultivars may be sensitive to the final spray solution. A small number of plants should be tested prior to application of the entire planting.

Use an alternate class of chemistry in the treatment program is recommended to prevent or delay resistance.

<table>
<thead>
<tr>
<th>Pest</th>
<th>Application Rate Talstar® P Professional Insecticide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fluid Ounces per 1,000 square feet</td>
</tr>
<tr>
<td>Bagworms¹₂</td>
<td>0.125 - 0.25</td>
</tr>
<tr>
<td>Cutworms</td>
<td>0.25 - 0.5</td>
</tr>
<tr>
<td>Elm Leaf Beetles</td>
<td></td>
</tr>
<tr>
<td>Fall Webworms</td>
<td></td>
</tr>
<tr>
<td>Gypsy Moth Caterpillars</td>
<td></td>
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<tr>
<td>Lace Bugs</td>
<td></td>
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<tr>
<td>Leaf Feeding Caterpillars</td>
<td></td>
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<tr>
<td>Tent Caterpillars</td>
<td></td>
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<tr>
<td>Adelgids</td>
<td>0.25 - 0.5</td>
</tr>
<tr>
<td>Aphids</td>
<td></td>
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<tr>
<td>Bees</td>
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</tr>
<tr>
<td>Beet Armyworm Beetles¹</td>
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</tr>
<tr>
<td>Black Vine Weevil (Adults)</td>
<td></td>
</tr>
<tr>
<td>Brown Soft Scales</td>
<td></td>
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<tr>
<td>Broad Mites</td>
<td></td>
</tr>
<tr>
<td>Budworms</td>
<td></td>
</tr>
<tr>
<td>California Red Scale (Crawlers)¹³</td>
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<tr>
<td>Centipedes</td>
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<tr>
<td>Cicadas</td>
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<tr>
<td>Citrus Thrips</td>
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<td>Clover Mites</td>
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<tr>
<td>Crickets</td>
<td></td>
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<tr>
<td>Diapreps (Adults)</td>
<td></td>
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<tr>
<td>Earwigs</td>
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<tr>
<td>European Red Mite</td>
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<td>Flea Beetles</td>
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<td>Fungus Gnats (Adults)</td>
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<tr>
<td>Grasshoppers</td>
<td></td>
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<tr>
<td>Japanese Beetle (Adult)</td>
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<tr>
<td>Leafhoppers</td>
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<tr>
<td>Leafrollers</td>
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<td>Mealybugs</td>
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<tr>
<td>Millipedes</td>
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<td>Mites</td>
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<td>Orchid Weevil</td>
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<td>Pillbugs</td>
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<tr>
<td>Plant Bugs (Including Lygus spp.)</td>
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</tr>
<tr>
<td>Psyllids</td>
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</tr>
<tr>
<td>Scale crawlers, such as California scale, San Jose scale, etc.¹²</td>
<td></td>
</tr>
<tr>
<td>Scorpions</td>
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</tr>
<tr>
<td>Sowbugs</td>
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<tr>
<td>Spider Mites¹⁴</td>
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</tr>
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<td>Spiders</td>
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</tr>
<tr>
<td>Spittlebugs¹</td>
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<tr>
<td>Thrips</td>
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<tr>
<td>Tip Moths</td>
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<td>Treehoppers¹</td>
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<td>Twig Borers¹³</td>
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<td>Wasps</td>
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<td>Weevils¹³</td>
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<tr>
<td>Whiteflies</td>
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<tr>
<td>Ants</td>
<td>0.5 - 1.0</td>
</tr>
<tr>
<td>Imported Fire Ants**</td>
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<tr>
<td>Leafminers</td>
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<tr>
<td>Pecan Leaf Scorch Mite</td>
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<tr>
<td>Pine Shoot Beetle (Adults)</td>
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<tr>
<td>Sawfly larvae</td>
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<tr>
<td>Spider Mites¹⁴</td>
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<tr>
<td>Slink Bugs</td>
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¹Bagworms: Apply when larvae begin to hatch and spray larvae directly. Applications when larvae are young will be most effective.
²Beetles¹, Scale Crawlers, Twig Borers, and Weevils: Treat trunks, stems and twigs in addition to plant foliage.
³Beetles¹, Scale Crawlers, Twig Borers, and Weevils: Treat trunks, stems and twigs in addition to plant foliage.
⁴Spider Mites: Talstar® P Professional Insecticide provides optimal two-spotted spider mite control when applied during spring to mid-summer. Higher application rates and/or more frequent treatments may be required for acceptable two-spotted spider mite control during mid- to late-summer. The addition of a surfactant or horticultural oil may improve the effectiveness of Talstar® P Professional Insecticide. Combinations of Talstar® P Professional Insecticide with other registered miticides have also proven effective. Alternately, Talstar® P Professional Insecticide applications may be rotated with those of other products that have different modes of action in control programs that are designed to manage resistance by two-spotted spider mites. Consult your local Cooperative Extension Service for resistance management recommendations in your region.
**For foraging ants.
¹Not for use in California.

Attention
Prior to applying Talstar P Professional Insecticide to wood siding, especially rough wood siding, be sure to thoroughly agitate the tank mixture. Prior to treating wood siding, test a small area and allow it to dry to be sure no deposits will form. Follow the same procedure when applying to wood surfaces in direct sunlight or the heat of the day.

Application equipment that delivers low volume treatments, such as the
Micro-Injector® or Actisol® applicators, may also be used to make crack and crevice, deep harborage, spot and surface treatments of Talstar P Professional Insecticide.

Restrictions
Do not apply this product in a way that will contact any person or pet either directly or through drift.
Do not apply a broadcast application to interior surfaces of homes.
Do not apply to pets, food crops, or sources of electricity.
Firewood is not to be burned for one month after treatment.
Use only in well ventilated areas.
Do not use on edible crops
During any application to overhead areas within the structure, cover surfaces below with plastic sheeting or similar material, except for soil surfaces in crawlspace.
Do not allow spray to contact food, foodstuffs, food contacting surfaces, food utensils or water supplies.
Thoroughly wash dishes and food handling utensils with soap and water if they become contaminated by application of this product.
Do not treat areas where food is exposed.
During indoor surface applications do not allow dripping or run-off to occur.
Do not apply people or pets on treated surfaces until spray has dried.
Let surfaces dry before allowing people and pets to contact surfaces.
Do not apply this product in patient rooms or in any rooms while occupied by the elderly or infirm.
Do not apply in classrooms when occupants are present in the immediate area in institutions such as libraries, sports facilities, etc.

Conditions of Sale and Limitation of Warranty and Liability:

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and buyer assumes the risk of any such use.

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Actisol is a registered trademark of Roussel-Uclaf