



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

November 26, 2019

Julie Schlekau
Mgr., Label & State Affairs Group
Valent U.S.A. LLC
1600 Riviera Ave., Ste. 200
Walnut Creek, CA 94596

Subject: Label Amendment – Adding Pests and Modifying User Safety Requirements
Product Name: Dinotefuran Tree Care 70WSP
EPA Registration Number: 59639-170
Application Date: 6/29/17
Decision Number: 531422

Dear Ms. Schlekau:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

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

Page 2 of 2
EPA Reg. No. 59639-170
Decision No. 531422

with FIFRA section 6. If you have any questions, please contact Marianne Lewis by phone at (703) 308-8043, or via email at lewis.marianne@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Gene Benbow".

Gene Benbow, Product Manager 7
Invertebrate & Vertebrate Branch 3
Registration Division (7505P)
Office of Pesticide Programs



ACCEPTED
 11/26/2019
 Under the Federal Insecticide, Fungicide
 and Rodenticide Act as amended, for the
 pesticide registered under
 EPA Reg. No. 59639-170

DINOTEFURAN	GROUP	4A	INSECTICIDE
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Note: Bold italicized text is information for the reader and is not part of the label.
 [Bracketed text is optional]

DINOTEFURAN TREE CARE 70WSP

For foliar and systemic control of listed sucking and chewing insects infesting ornamental plants grown in outdoor landscapes (commercial, industrial, recreational and residential), parks, schools, cemeteries, airport grounds, military grounds, golf courses, woodlots, athletic fields, forests (National, Private and State) and other wooded areas.

For outdoor use only

Active Ingredient:	By Wt
*Dinotefuran	70%
Other Ingredients	<u>30%</u>
Total	100%

*N-methyl-N'-nitro-N"-[(tetrahydro-3-furanyl)methyl]guanidine

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

EPA Reg. No. 59639-170
 EPA Est. 46275-IL-2

NET WEIGHT 0.75 POUNDS (CONTAINS 20/0.6 OZ WSP PACKETS)

[Lot No:]

Note to Reviewer: When a non-refillable container is used, the Lot No. will be placed on the container.

FIRST AID	
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 further treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to by the poison control center or doctor. • Have person sip a glass of water if able to swallow. • 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 further 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 poison control center or doctor for further treatment advice.
<p>HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor or going for treatment. For 24 hour medical emergency assistance (human or animal), or chemical emergency assistance (spill, leak or accident). Call CHEMTREC at 1-800-424-9300.</p>	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks.

USER SAFETY REQUIREMENTS

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

ENGINEERING CONTROLS STATEMENT

Water soluble packets, when used correctly, qualify as a closed mixing/loading system under the Worker Protection Standard [40 CFR 170.607 (d)]. Mixers and loaders handling this product while it is enclosed in intact water soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, socks, a chemical-resistant apron, and chemical-resistant gloves. When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for “applicators and other handlers” and have such PPE immediately available for use in emergency, such as a spill or equipment break-down.”

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 the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in water adjacent to treated areas. Do not dispose of equipment washwaters or rinsate into a natural drain or water body. Do not contaminate water when disposing of equipment washwaters or rinsate.

This compound is toxic to honey bees. The persistence of residues and potential residual toxicity of Dinotefuran in nectar and pollen suggest the possibility of chronic risk to honey bee larvae and the eventual instability of the hive.

- This product is toxic to bees exposed to residues for more than 38 hours following treatment.
- Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state and federal authorities.

Dinotefuran and its degradate, MNG, have the properties and characteristics associated with chemicals detected in groundwater. The high water solubility of dinotefuran, and its degradate, MNG, coupled with its very high mobility, and resistance to biodegradation indicates that this compound has a strong potential to leach to the subsurface under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Periodic monitoring of shallow groundwater in the use area is recommended.

PROTECTION OF POLLINATORS



APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS



Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications.
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

<http://pesticidestewardship.org/pollinatorprotection/Pages/default.aspx>.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state/tribe, go to: www.aapco.org. Pesticide incidents can also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

SPRAY DRIFT ADVISORY

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crop thereof rendered for sale, use or consumption.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL, USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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.

BEE HAZARD DIRECTIONS FOR USE

Follow these additional application restrictions for use patterns marked with the Bee Hazard Icon.



1. FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS

Do not apply this product while bees are foraging.

- This product is toxic to bees exposed to residues for more than 38 hours following treatment.
- Do not apply this product to blooming, pollen-shedding or nectar producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state or federal authorities.

Follow these additional application restrictions for use patterns marked with the Bee Hazard Icon.



2. NON-AGRICULTURAL PRODUCTS:

Do not apply *Dinotefuran* Tree Care 70 WSP while bees are foraging. Do not apply *Dinotefuran* Tree Care 70 WSP to plants that are flowering. Only apply after all flower petals have fallen off.

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 all unprotected persons out of operating areas, or vicinity where there may be drift. Do not enter treated areas without protective clothing until sprays have dried.

**DISCLAIMER, RISKS OF USING THIS PRODUCT,
LIMITED WARRANTY
AND LIMITATION OF LIABILITY**

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

RISKS OF USING THIS PRODUCT

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND TO THE FULLEST EXTENT ALLOWED BY LAW, AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

LIMITED WARRANTY

Valent warrants only that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the **label and subject to the Risks of Using This Product as described above. To the extent consistent with applicable law AND AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED.** No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

LIMITATION OF LIABILITY

To the fullest extent allowed by law, Valent or Seller is not liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. The limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. TO THE FULLEST EXTENT ALLOWED BY LAW, THE EXCLUSIVE REMEDY OF THE BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THE PRODUCT.

PROMPT NOTICE OF CLAIM

Valent must be provided with prompt notice of any claim so that an immediate inspection of the affected property or plants can be made. To the extent applicable law allows such requirement, notice of a claim shall be given promptly to Valent, whether the claim is based on contract, negligence, strict liability, or other tort or otherwise be barred from any remedy.

NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing Disclaimer, Risks of Using This Product, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement.

TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, Dinotefuran Tree Care 70 WSP contains a Group 4A insecticide. Any insect population may contain individuals naturally resistant to Dinotefuran Tree Care 70 WSP and other Group 4A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same locations. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance take the following steps:

- Rotate the use of Dinotefuran Tree Care 70 WSP or other Group 4A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Valent U.S.A. LLC at 1-800-6-VALENT (682-5368).

APPLICATION INFORMATION

Dinotefuran Tree Care 70 WSP is a systemic insecticide that is taken up by the root system, foliage or through the bark and translocated upward throughout the plant. Apply Dinotefuran Tree Care 70 WSP by soil injection, soil drench, basal trunk spray or foliar spray to ornamental plants growing in outdoor landscapes (commercial, industrial, recreational, and residential), parks, schools, cemeteries, airport grounds, military grounds, golf courses, woodlots, athletic fields, forests (National, Private and State) and other wooded areas.

Important: The active ingredient in Dinotefuran Tree Care 70 WSP has been found to be effective on a wide range of insect species. Before using Dinotefuran Tree Care 70 WSP for insects not listed in the directions for use, test Dinotefuran Tree Care 70 WSP on a small scale basis and evaluate for insect control prior to widespread use.

RESTRICTIONS

- Do not graze treated areas or use clippings from treated areas for feed or forage.
- Do not allow runoff or puddling of irrigation water following application.
- Do not apply to areas which are water logged or saturated or frozen which will not allow penetration into the root zone of the plant.
- When making foliar applications or basal trunk sprays keep children and pets away from the treated area until the spray has dried.
- Do not apply this product, by any application method, to linden, basswood or other *Tilia* species.
- Do not apply when the target site is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist.

MIXING INSTRUCTIONS

Instructions for Using Water Soluble Packages Directly into Spray Tanks:

Water Soluble Packages (WSPs) are designed to dissolve in water. Agitation may be used, if necessary, to help dissolve the WSP. Failure to follow handling and mixing instructions can increase your exposure to the pesticide products in WSPs. WSPs, when used properly, qualify as a closed mixing/loading system under the Agricultural Worker Protection Standard [40 CFR 170.607(d)].

Handling Instructions

Follow these steps when handling pesticide products in WSPs.

1. Mix in spray tank only.
2. Handle WSP(s) in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions.
3. Keep the WSP(s) in outer packaging until just before use.
4. Keep the WSP dry prior to adding to the spray tank.
5. Handle with dry gloves and according to the label instructions for PPE.
6. Keep WSP intact. Do not cut or puncture WSP.
7. Reseal the WSP outer packaging to protect any unused WSP(s).

Mixing Instructions

Follow the steps below when mixing this product, including if tank mixed with other pesticide products. If being tank mixed, the mixing directions 1 through 9 below take precedence over the mixing directions of the other tank mix products. WSPs may, in some cases, be mixed with other pesticide products so long as the directions for use of all mixed products do not conflict. Do not tank mix this product with products that prohibit tank mixing or have conflicting mixing directions.

1. If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank.
2. Fill tank with water to approximately one-third to one-half of the desired final volume of spray.
3. Stop adding water and stop any agitation.
4. Place intact/unopened WSP(s) into the tank.
5. Do not spray water from a hose or fill pipe to break or dissolve the WSP(s).
6. Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
7. Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
8. Stop agitation before tank lid is opened.
9. Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSPs have fully dissolved and the contents have been thoroughly mixed into the solution.
10. Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
11. Once the WSP have fully dissolved and any other products have been added to the tank, resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
12. Use the spray solution when mixing is complete.
13. Maintain agitation of the diluted pesticide mix during transport and application.
14. It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label.

Dinotefuran Tree Care 70 WSP and Tank Mixtures: Add 1/2 of the required amount of water to the mix tank. Start the agitator before adding any tank mix partners. Add tank mix partners in this order: products packaged in water soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, emulsifiable concentrates, surfactants, and adjuvants. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

Important: When tank mixing, add the Dinotefuran Tree Care 70 WSP water soluble packets first, followed by any additional products in water soluble packaging. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

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

If using Dinotefuran Tree Care 70 WSP in a tank mixture, observe all directions for use, crops/sites, use rates, dilution ratios, precautions and limitations which appear on the tank mix product label. Do not exceed the label dosage rate, and follow the most restrictive label precautions and limitations. Do not mix this product with any product which prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

COMPATIBILITY

IMPORTANT: The risk factors of all potential tank mixes have not been tested on all plants. Before applying any tank mixture not specifically recommended on this label, confirm risk factors to the target plant.

Dinotefuran Tree Care 70 WSP is compatible with most commonly used pesticides, adjuvants and nutritional sprays. However, since it is not possible to test all possible mixtures, pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixture with Dinotefuran Tree Care 70 WSP. To determine the physical compatibility of Dinotefuran Tree Care 70 WSP with other products, use the test described below. When an adjuvant is to be used with this product, Valent recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

In an appropriately sized container, add 1 (0.6 oz) packet of Dinotefuran Tree Care 70 WSP along with the proportionate amounts of additional products to 5 qt of water, add wettable powders and water dispersible granular products first, then liquid flowables and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for additional required ingredients to the spray tank.

APPLICATION TECHNIQUES

- Use higher labeled rates for broadleaf evergreens with dense foliage (example hollies), for applications on large trees, for difficult to control insects, for therapeutic treatments, or for preventive applications made greater than 4 weeks in advance of the target pest infestation
- Dinotefuran Tree Care 70 WSP water dilution rates range from 1 fl oz of water up to 1 gal of water per foot of shrub height or inch of trunk diameter. Specific dilution rates will depend further on the application equipment and use patterns for each individual.
- Keep soil moist for at least 7 days after application.
- Heavy rainfall or inadequate irrigation immediately following application will decrease performance.
- Applications made during severe drought conditions will result in slower uptake and translocation.

USE RESTRICTIONS

- Do not apply to excessively dry, saturated or frozen soil.

DETERMINING DIAMETER AT BREAST HEIGHT (DBH)

Single Stem: Measure the standard DBH of the tree at 4' 6" above the soil.

Multi Individual Trees Growing in Close Proximity: For trees that have grown close together, measure the DBH of each stem and treat each tree individually. Also, because of close proximity of trees, it may be necessary to apply Dinotefuran Tree Care 70 WSP to the outer perimeter of clumped trees.

Multi-stem Split Below DBH: For a tree that has multiple stems splitting below DBH, measure the tree at the narrowest point between the root flare and the split.

Stem Clusters: For trees that are grown too close together to be treated as individual trees, measure the DBH of each stem and add the measurements together. Also, because of close proximity of trees, it may be necessary to apply Dinotefuran Tree Care 70 WSP to the outer perimeter of clumped trees.

Tree Splits at DBH: For a tree that splits into two or more stems at DBH, measure and add the diameter of the stems and measure the narrowest point below the split. Take the average of these values.

SOIL APPLICATION

When applied to the soil, Dinotefuran Tree Care 70 WSP is taken up by actively growing trees and shrubs. Speed of control will be dependent on tree size, tree health, environmental conditions and how actively pests are feeding. In actively growing and transpiring plants, control may be evident within one week after application in small shrubs, and within three weeks after application in large trees. For optimal control, time soil applications so that Dinotefuran Tree Care 70 WSP has had time to move to insect feeding sites by time target life stage is present. Control may be less effective applied when soil is dry or when plants are not actively taking up water.

Remove landscape mulch, landscape fabric and surface organic matter prior to application to ensure solution is delivered to the mineral soil

Soil Drench: Measure the diameter of the tree. Mix required dose in water and uniformly apply to soil around the base of tree. Make applications within 12 inches of the trunk of the tree. Pull back mulch before drenching. For optimal performance, apply 1 – 4 pints of drench solution per foot of shrub height or inch of trunk diameter. Adjust drench volume based on soil type, soil moisture and thickness of mulch so that product is moved into root zone. Lower drench volumes may be less effective in dry soils or when applied over heavy mulch unless there is adequate rainfall or irrigation after application to move product into root zone.

Soil Injection: Measure the diameter of the tree. Mix required dose in water and apply to each shrub or tree using a soil injection application system. Dinotefuran Tree Care 70 WSP may be soil injected with low volume or high volume injection equipment. For optimum performance, inject 1 to 32 fl oz of dilute solution per foot of shrub height or inch of trunk diameter depending on application equipment. Make shallow injections where feeder roots are most concentrated. Divide the required dose evenly among injection sites spaced as uniformly as possible around the tree. For trees less than 6 inches DBH, use at least 4 injection sites evenly spaced around the tree. Inject diluted solution approximately 2 to 6 inches deep into the mineral soil. Orient injection orifices to release the diluted product horizontally at the point of injection.

Basal System (preferred method): Apply Dinotefuran Tree Care 70 WSP by placing the injections sites at the base of the tree. Evenly space the injection sites around the base of the tree. For most species a high density of fibrous roots are located at the base of the tree.

Grid System: Space injections on a 2.5 ft center within the drip line of the tree.

Circle System: Make injections every 2 to 3 feet within the dripline forming concentric circles around the base of the tree.

Applications should be made before trees are heavily infested and showing obvious symptoms of decline.

Important: Application to heavily infested trees may not prevent the decline or death of trees due to existing damage and tree stress.

Soil application for systemic insect control on ornamental plants in outdoor landscapes (commercial, industrial, recreational, and residential), parks, schools, cemeteries, airport grounds, military grounds, golf courses, woodlots, athletic fields, forests (National, Private and State) and other wooded areas.

Pests	Rate
<p>Adelgids (such as: Hemlock Woolly) Aphids Bagworms (larvae) Erythrina gall wasp Flatheaded borers (such as Emerald Ash Borer, Appletree) Glassy-Winged Sharpshooter Gypsy moth (larvae) Japanese beetle (adults) Lacebugs (such as: Azalea, Hawthorn) Leaf Beetles (such as Viburnum) Leafhoppers Leafminers (such as: Boxwood, Serpentine) Mealybugs (such as: Citrus, Long-tailed, Madeira, Obscure, Pink hibiscus, Root) Mimosa webworm (larvae) Peachtree borer (larvae) Pine tip moth (larvae) Plantbugs Psyllids (such as Asian citrus) Root Weevils (larvae and adults) (such as: Black vine) Roundheaded borers (excluding Asian Longhorned Beetle) Royal Palm Bug Sawfly larvae Scales (Armored and Soft) Spittlebug Tent caterpillars (larvae) Thrips (suppression) (such as: Chilli) Treehoppers Whiteflies (such as: Ficus, Giant, Silverleaf/Sweetpotato) White Grubs (such as: Oriental beetle)</p>	<p>For Trees: Apply 1 (0.6 oz) packet of Dinotefuran Tree Care 70 WSP per 5 to 17 inches of trunk diameter at breast height (DBH)</p> <p>For Shrubs: Apply 1 (0.6 oz) packet of Dinotefuran Tree Care 70 WSP per 10 to 17 ft of height</p> <p>For Hedges: Apply 1 (0.6 oz) packet of Dinotefuran Tree Care 70 WSP per foot of hedge height per 50 to 210 linear feet of row</p> <p>(Each packet contains approximately 0.026 lb active ingredient)</p> <p>For Soil Drench: Combine Dinotefuran Tree Care 70 WSP packets in sufficient water to achieve an application of at least 1 to 4 pints of dilute solution per foot of shrub height or inch of trunk diameter. For hedges, wet a one foot wide band down center of hedge row.</p> <p>For Soil Injection: Dinotefuran Tree Care 70 WSP may be soil injected with low volume or high volume injection equipment. For optimum performance, inject 1 to 32 fl oz of dilute solution per foot of shrub height or inch of trunk diameter depending on application equipment. Make shallow injections where feeder roots are most concentrated.</p>
<p>Restriction Do not apply more than 0.77 lb (0.54 lb ai) Dinotefuran Tree Care 70 WSP per acre of landscape or forest per year.</p>	

FOLIAR APPLICATION



Follow application instructions as indicated in the Bee Hazard Direction for Use

Apply in sufficient water to ensure good coverage of ornamental plants. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. When making applications to plants with hard to wet foliage such as holly or pine, the addition of a spreader/sticker is recommended. Read and understand adjuvant product labels prior to mixing and applying them with Dinotefuran Tree Care 70 WSP.

To assure optimum effectiveness, the product must be placed where the growing portion of the target plant can absorb the active ingredient. For optimal control, make application just before pest populations reach an economic threshold. If necessary, make a second application after 14 to 21 days.

Tank mixing with a surfactant may improve control of pests such as whitefly, mealybug, and scale. Confirm plant safety of tank mix in small area before using on a commercial scale.

Foliar application for systemic insect control on ornamental plants in outdoor landscapes (commercial, industrial, recreational and residential), parks, schools, cemeteries, airport grounds, military grounds, golf courses, woodlots, athletic fields, forests (National, Private and State) and other wooded areas.	
Pests	Rate
Adelgids (such as: Hemlock Woolly) Aphids (suppression) Glassy-Winged Sharpshooter Japanese beetle (adults) Lacebugs (such as: Azalea, Hawthorn) Leaf Beetles (such as Viburnum) Leafhoppers Leafminers (such as: Boxwood, Serpentine) Mealybugs (such as: Citrus, Long-tailed, Madeira, Obscure, Pink hibiscus, Root) Psyllids (such as Asian citrus) Root Weevils (adults) (such as: Black Vine) Scales (Armored and Soft) Thrips (suppression) (such as: Chilli) Whiteflies (such as: Ficus, Giant, Silverleaf/Sweetpotato)	Apply 1 (0.6 oz) packet of Dinotefuran Tree Care 70WSP per 25 to 50 gals (Each packet contains approximately 0.026 lb active ingredient) 25 gallons of spray mix will treat approximately 5,000 square feet of area
Restriction Do not apply more than 0.77 lb (0.54 lb ai) Dinotefuran Tree Care 70 WSP per acre of landscape or forest per year.	

BARK APPLICATION

When sprayed on the trunk, Dinotefuran Tree Care 70 WSP will be absorbed through the bark and into the vascular system, and then transported throughout the tree. Speed of control will depend on tree size, tree health, environmental conditions and how actively pests are feeding. In actively transpiring trees, control may be evident within 1 to 4 weeks after application.

Spray bark on root flare (buttress roots) and on trunk between soil surface and 4 to 5 feet above the soil surface. Adjust nozzle to uniformly distribute spray over the entire circumference of the tree trunk and buttress roots. Wet bark just to the point of saturation and run off. Apply with a low volume sprayer operated at 10 to 20 PSI to prevent tree damage, bounce back and drift.

Application Equipment: Dinotefuran Tree Care 70 WSP may be applied using many different types of low pressure sprayers. Before applying, start with a clean, well maintained sprayer. Apply a sufficient amount of water to ensure good coverage to the entire circumference of the lower 5 feet of the tree trunk. To reduce drift, use a spray nozzle that produces medium-sized droplets.

Mixing Instructions: Fill a clean spray tank to 2/3 of desired level with clean water. Add 6 to 12 packets (3.6 to 7.2 oz) of Dinotefuran Tree Care 70 WSP per gallon of spray solution. A surfactant may be added to the spray solution to improve surface wetting and bark penetration. When using a surfactant, follow all label directions and precautions on the surfactant product label. Fill spray tank to desired level with clean water. Continue agitation until all spray solution has been applied. Prepare no more spray mixture than is required for immediate spray application.

Use a low pressure sprayer operated at 10 to 20 psi to reduce spray drift or splash back on non-target plants. Spray solution onto the tree trunk from 4" to 60" above the soil surface. Adjust sprayer nozzle to uniformly distribute spray solution on bark covering the entire circumference of the tree trunk. Wet the bark just to the point of saturation and run-off to the soil surface.

Certain surfactants may cause phytotoxicity upon direct contact with the foliage of non-target plants or the foliage on the tree that is being treated. Make sure the spray solution with surfactant does not contact foliage. Bark penetrating surfactants may change the color of lichens causing an objectionable appearance on the bark surface following treatment.

RESTRICTIONS

- Do not apply to wet bark, during rainfall, or if rain is expected within 12 hours after application.
- Do not make more than one application per year.
- Do not apply more than 0.77 lb (0.54 lb ai) Dinotefuran Tree Care 70WSP per acre per year.
- Application to heavily infested trees may not prevent the decline or death of trees due to existing damage and tree stress.
- Do not make bark applications when trees are dormant, under drought stress or not actively taking up water from the soil.

Applications should be made before trees are heavily infested and showing obvious symptoms of decline.

Bark application for systemic insect control on ornamental plants in outdoor landscapes (commercial, industrial, recreational and residential), parks, schools, cemeteries, airport grounds, military grounds, golf courses, woodlots, athletic fields, forests (National, Private and State) and other wooded areas..

Pests	Rate
<p>Adelgids including Hemlock Woolly</p> <p>Aphids</p> <p>Flatheaded Borers including Alder Bronze Birch Emerald Ash Flatheaded Appletree Two-lined Chestnut</p> <p>Lacebugs</p> <p>Leaf Beetles</p> <p>Leafhoppers</p> <p>Leafminers</p> <p>Mealybugs</p> <p>Mountain Pine Beetle*</p> <p>Palm Weevil</p> <p>Pine Tip Moth (larvae)</p> <p>Psyllids</p> <p>Roundheaded Borers (excluding Asian Longhorned)</p> <p>Scale (armored and soft)including Calico Cryptomeria Elongate Hemlock Fig (Ficus) Wax</p> <p>Thrips (suppression)</p> <p>Walnut Twig Beetle</p> <p>Whiteflies including Fig (Ficus)</p>	<p>Bark Spray Use 6 to 12 (0.6 oz) packets (3.6 to 7.2 oz) of Dinotefuran Tree Care 70WSP per gallon of water. Consider using the higher rate for trees larger than 24 inches DBH. (Each packet contains approximately 0.026 lb active ingredient)</p> <p>Spray bark on root flare (buttress roots) and on trunk between soil surface and 4 to 5 feet above the soil surface. Adjust nozzle to uniformly distribute spray over the entire circumference of the tree trunk and buttress roots. Wet bark just to the point of saturation and run off onto soil. Apply with a low volume sprayer operated at 10 to 20 PSI to prevent tree damage, bounce back and drift.</p> <p>Depending on bark type and thickness, 1 gal of spray solution will typically cover 65-85 inches of trunk diameter (1.5 to 2.0 fl oz/ inch of trunk diameter) when measured at 4.5 feet above the soil.</p> <p>For optimum control, apply to actively growing trees and time application so that Dinotefuran Tree Care 70WSP has had time to move to insect feeding sites when target life stage is present.</p> <p>Control may be less effective in trees with thick bark and at times when trees are not actively growing or transpiring.</p> <p>*For Mountain Pine Beetle; apply between two weeks before and two weeks after peak of expected flight activity.</p>

Restriction
Do not apply more than 0.77 lb (0.54 lb ai) per acre of landscape or forest per year.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE

Keep pesticide in original container.

Do not put concentrate or dilute into food or drink containers.

Store in a cool dry place.

Do not store diluted spray.

For help with any spill, leak, fire or exposure involving this material, call CHEMTREC day or night 1-800-424-9300.

PESTICIDE DISPOSAL

Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL

Nonrefillable outer bag. Do not reuse or refill the outer bag. Completely empty bag into application equipment. Offer for recycling, if available or dispose of empty bag in a sanitary landfill or by incineration.

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Manufactured for:

Valent U.S.A. LLC

P. O. Box 8025

Walnut Creek, CA 94596-8025

Made in U.S.A.

EPA Reg. No. 59639-170

EPA Est. 46275-IL-2

Optional Marketing Statements

Arborceutical™ Solutions

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[Label for Individual Water Soluble Packets]

Dinotefuran Tree Care 70WSP

Active Ingredient: Dinotefuran70%

EPA Reg. No. 59639-170

KEEP OUT OF REACH OF CHILDREN
CAUTION

Refer to label for complete directions for use and precautions

Net Weight: 17.14 g (0.6 oz)