

SPECIMEN

Dinotefuran	Group	4A	Insecticide
Alpha-cypermethrin	Group	3A	Insecticide

Alucion™ 35 WG

Insecticide

For insect control in turfgrass

Active Ingredients*:

dinotefuran: N-methyl-N'-nitro-N"-[(tetrahydro-3-furanyl)methyl]guanidine 28.0%

alpha-cypermethrin: mixture of

(S)-α-cyano-3-phenoxybenzyl (1R,3R)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate
and

(R)-α-cyano-3-phenoxybenzyl (1S,3S)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate 7.0%

Other Ingredients: 65.0%

Total: 100.0%

* **Alucion™ 35 WG insecticide** contains 0.28 lb active ingredient dinotefuran per pound and 0.07 lb active ingredient alpha-cypermethrin per pound formulated as a water-dispersable granule (WG).

EPA Reg. No. 7969-467

EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN
CAUTION/PRECAUCION**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See full label for **First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and/or state-specific use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call poison control center or doctor for treatment advice. • DO NOT induce vomiting unless told to do so by the poison control center or doctor. • DO NOT give any liquid to the person. • DO NOT give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes. • Call a poison control center or doctor for further treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • 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 treatment advice.
HOTLINE NUMBER	
<p>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).</p>	

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, or viton ≥ 14 mils)
- Shoes plus socks
- Protective eyewear

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

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands with soap and water 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.

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

- This product is toxic to bees exposed to residue 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.

Groundwater Advisory

Dinotefuran and its degradate, 1-methyl-2-nitroguanidine (MNG), have the properties and characteristics associated with chemicals detected in groundwater. The high water solubility of dinotefuran and its degradate MNG coupled with their very high mobility and resistance to biodegradation indicate that these chemicals have a strong potential to leach into groundwater. Use of **Alucion™ 35 WG insecticide** 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.


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 unfit for sale, use or consumption. The applicator is responsible for avoiding off-site spray drift. Be aware of nearby nontarget sites and environmental conditions.

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 onto beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat 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) must immediately be reported to the state/tribal lead agency. For contact information for your state, go to: <https://aapco.org/2015/07/28/resources-2/>. Pesticide incidents must also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov.

Directions For Use

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

Read the entire label. Use strictly in accordance with precautionary statements and directions, and with applicable state and federal regulations.



DO NOT apply **Alucion™ 35 WG insecticide** while bees are foraging. **DO NOT** apply **Alucion 35 WG** to plants that are flowering. Only apply after all flower petals have fallen off.



- Bees must be removed, excluded, covered, or otherwise protected for 38 hours following application.
- **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.

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 state or tribal agency responsible for pesticide regulation.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in a cool, dry area away from heat or open flame.

Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representatives at the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

(continued)

STORAGE AND DISPOSAL *(continued)*

Container Handling *(continued)*

Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to take if material is released or spilled:

- In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.
- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Alucion™ 35 WG insecticide is a 35% water-dispersible granule product containing two active ingredients, dinotefuran and alpha-cypermethrin, for control of insects in turfgrass. **Alucion 35 WG** can be effectively used in Integrated Pest Management (IPM) and resistance management programs for listed insect pests of turfgrass.

Mode of Action

Dinotefuran and alpha-cypermethrin are classified by IRAC (Insecticide Resistance Action Committee) as target site-of-action **Group 4A** and **Group 3A**, respectively.

Alucion 35 WG is primarily active through ingestion and contact by the target insect. Dinotefuran is a neonicotinoid, which is a nicotinic acetylcholine receptor (nAChR) competitive modulator and acts on insect nerve function. Alpha-cypermethrin is a pyrethroid, which is a sodium channel modulator that acts on nerve function.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, **Alucion 35 WG** contains **Group 4A** and **Group 3A** insecticides. Any insect population may contain individuals naturally resistant to **Alucion 35 WG** and other **Group 4A** and **Group 3A** insecticides. A gradual or total loss of insect control may occur over time if these insecticides are used repeatedly in the same treatment areas. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take one or more of the following steps:

- Rotate the use of **Alucion 35 WG** or other **Group 4A** or **Group 3A** insecticides within a growing season sequence with **non-Group 3A** or **non-Group 4A** insecticide groups that control the same insects.
- Adopt an integrated pest management program for insecticide use that includes scouting, historical information related to pesticide use, crop rotation, and considers host plant resistance, impact of environmental conditions on insect development, insect population thresholds, as well as cultural, biological and other chemical control practices.
- Monitor treatment area for lack of biological efficacy that might indicate possible resistance development.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or Integrated Pest Management (IPM) recommendations for specific crops and insects.
- For further information or to report suspected resistance, consult your local BASF representative, extension specialist, or certified crop advisor.

Use Sites

Turfgrass

- Golf courses
- Recreational areas
- Residential, commercial and industrial lawns

Application Instructions

- **Alucion™ 35 WG insecticide** is most effective when applied at the first sign of insect pests and before the buildup of heavy pressure. Application must be timed to coincide with locally recommended treatment thresholds for specific pests listed.
- Apply **Alucion 35 WG** through conventional spray equipment in a minimum of 1 gallon finished spray per 1,000 sq ft. Ensure thorough coverage in the treated area using calibrated equipment normally used for application of turfgrass insecticides. Use the spray pressure and nozzles suggested by the equipment manufacturer to produce a uniform, medium to coarse droplet spray. Check calibration periodically to ensure equipment is working properly. Prevent skips by using marker dyes or foam aids.
- Application equipment must be cleaned thoroughly before and after applying this product. Flush system with clean water.

Spray Drift Management

Ground Applications

- User must only apply with the release height recommended by the manufacturer, but no more than 4 ft above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. **DO NOT** apply during temperature inversions.

Spray Drift Advisories

DO NOT apply when wind speed favors drift beyond the area intended for treatment. The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator is responsible for considering these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

Importance of Droplet Size. An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Wind Speed Restrictions. Drift potential increases at wind speed of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, and equipment specifications determine drift

potential at any given wind speed. Only apply this product if the wind direction favors on-target deposition. **DO NOT** apply when wind speed exceeds 15 mph, and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Temperature Inversions. Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

Wind

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Terrain Precaution. Local terrain can influence wind patterns. The applicator must be familiar with these patterns and understand their impact on drift.

Sensitive Areas. To ensure the protection of threatened or endangered species, it is important to maintain spray drift loadings below levels of concern for any area adjacent to the application site that is not excluded as possible habitat for these organisms.

Handheld Technology Applications:

Take precautions to minimize spray drift.

Compatibility Test for Tank Mix Components

Before mixing components, always perform a compatibility jar test.

1. Add components in the order listed in **Mixing Order** instructions.
 - **For 100 gallons per acre spray volume:** Start with 16 cups (1 gallon) of water from the intended source at the source temperature.
 - **For other spray volumes:** Adjust rates accordingly.
 - **Dry product:** Add 2 teaspoons per pound of product per acre.
 - **Liquid product:** Add 1 teaspoon per pint of product per acre.
2. Always cap the jar and invert 10 cycles after component additions.
3. When the components have all been added to the jar, let the solution stand for 15 minutes.
4. **Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface, or fine particles that precipitate to the bottom, or thick (clabbered) texture. **DO NOT** use any spray solution that could clog spray nozzles.

Mixing Order

Make sure each component is thoroughly mixed and suspended before adding tank mix partners. Except when mixing products in PVA bags, maintain constant agitation during mixing and application. If the spray mixture is allowed to settle for any period of time, thorough agitation is essential to resuspend the mixture before spraying is resumed.

1. **Water** - Fill a thoroughly clean sprayer tank 1/2 to 3/4 full with clean water and begin agitation.
2. **Inductor** - If an inductor is used, rinse it thoroughly after each component has been added.
3. **Products in PVA Bags** - Place any product contained in water-soluble PVA bags into the mixing tank. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
4. **Water-soluble additives** [including dry and liquid fertilizers such as ammonium sulfate (AMS) or urea ammonium nitrate (UAN) when applicable]
5. **Water-dispersible products** (such as **Alucion™ 35 WG insecticide**, dispersible concentrates, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
6. **Water-soluble products**
7. **Emulsifiable concentrates** (such as oil concentrates when applicable)
8. **Remaining quantity of water**

Restrictions

- For outdoor use only.
- **DO NOT** apply to ornamental or landscape plantings.
- **DO NOT** graze or feed treated grass clippings to livestock or companion animals.
- **DO NOT** apply under conditions where thorough and uniform coverage cannot be obtained or where spray drift may occur.
- **DO NOT** apply to areas that are water-logged, saturated, or frozen.
- Keep children and pets off treated areas until spray has dried.
- **DO NOT** apply more than a total of 19.2 ozs of **Alucion 35 WG** (1.2 lbs) formulated product per acre per year.
- **DO NOT** make more than one application per year.
- **DO NOT** make applications during rain. Avoid making applications when rainfall is expected within 24 hours to allow product sufficient time to dry.
- **DO NOT** apply this product through any type of irrigation system.
- Excessive rainfall within 24 hours after application may cause unintended run-off of pesticide application.
- Avoid mixing **Alucion 35 WG** with **FRAC Group 3** sterol-inhibiting fungicides.

If using **Alucion 35 WG** in a tank mixture, 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 precautions 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. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

Use-specific Application Instructions

Turfgrass

Pest Controlled	Application Timing	Rate (ozs product)	
		per 1,000 sq ft	per acre
Annual bluegrass weevil*	Apply at first signs of turf damage, before or immediately following egg hatch, or when adults are first observed.	0.44	19.2
Ants	Apply when actively foraging ants first observed.		
Armyworm Cutworm Sod webworm	Apply at first sign of early instars, when caterpillars are first observed.		
Billbug	Apply before or during egg hatch in spring. OR Apply in spring when adults are first observed, or before or during egg hatch.		
Chinch bug	Apply prior to egg hatch or to first instar nymphs. Target applications at the first sign of turf damage.		
European cranefly*	Apply in mid- to late spring just before pupation of overwintered larvae, or apply in fall within several days of observed mating flights.		
Mole crickets* Southern Tawny	Make applications in spring immediately prior to peak egg hatch or when nymphs are small and feeding close to the soil surface. If adults or large nymphs are observed and actively tunneling, tank mix with curative insecticide labeled for mole cricket control.		

* Suppression only

- Apply in sufficient water to ensure thorough and uniform coverage of target area. Use a minimum of 1 to 2 gallons finished spray per 1,000 sq ft.
- Consult your local State Extension Service or State Extension Turfgrass Specialist for more specific information on timing of insecticide application.
- Irrigate turf if rainfall does not occur within 24 hours after application to ensure movement of active ingredients through thatch.
- Mow turfgrass after sufficient irrigation or rainfall has occurred to maintain uniformity of application.

Use Restrictions

- **DO NOT** apply more than a total of 19.2 ozs of **Alucion™ 35 WG insecticide** (0.336 lb of dinotefuran) per acre per year and (0.084 lb of alpha cypermethrin) per acre per year.
- **DO NOT** make more than one application per year.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as environmental conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer. BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW: (A) BASF MAKES NO OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY, (B) BUYER'S EXCLUSIVE REMEDY AND BASF'S AND SELLER'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT, AND (C) BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.** BASF and the Seller offer this product, and the Buyer and User accept it, subject to these **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

PCS915

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 **BASF**
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