

SECTION 1: Product and Company Identification

1.1. Product identifier

Trade name : TRANSTECT™ INFUSIBLE INSECTICIDE
Product code : EPA Reg. No. 74779-15

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/preparation : Insecticide

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Rainbow Treecare Scientific Advancements
11571 K-Tel Drive
Minnetonka, MN 55343
Phone: 1-(877) 272-6747 (toll free)
www.treecarescience.com

1.4. Emergency telephone number

Emergency number : (800)-424-9300 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification



GHS07

Classification

Acute Tox 4

Aquatic Acute 2

Category

H302 Harmful if swallowed

H401 Toxic to aquatic life

2.2. Label elements

Hazard Symbols

:



GHS07

Signal word

: WARNING

Hazard statements

: H302 Harmful if swallowed.



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- Hazard description : H401 Toxic to aquatic life
- Classification System: : NFPA ratings (scale 0 – 4)



HAZARD INDEX:

- 4 Severe Hazard
- 3 Serious Hazard
- 2 Moderate Hazard
- 1 Slight Hazard
- 0 Minimal Hazard

SECTION 3: Composition/information on ingredients

Chemical Name	CAS Number	%/wt
Dinotefuran*	165252-70-0	22.5
Other Ingredients Trade Secret**	No CAS#	77.5

*Active Ingredient

**Other ingredients, which are maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identity is withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document.

SECTION 4: First aid measures

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

4.1. Description of first aid measures

- EYE CONTACT** : 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 poison control center or doctor for treatment advice.
- SKIN CONTACT** : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or physician for treatment advice.
- INGESTION** : Call physician or Poison Control Center immediately for treatment advice. Have the person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by a Poison Control Center or a physician. Do not give anything by mouth to an unconscious person.
- NOTE TO PHYSICIAN** : Most important symptoms and effects, both acute and delayed: Unknown
Indication of any immediate medical attention and special treatment needed: None



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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2. Special hazards arising from the substance or mixture

Carbon dioxide (CO₂)

Nitrogen oxides (NO_x)

5.3. Advice for firefighters

Firefighting instructions : Products of combustion from fires involving this material may be toxic. Avoid breathing smoke and mists. Avoid personnel and equipment contact with fallout and runoff. Minimize the amount of water used for firefighting. Do not enter any enclosed areas without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and firefighting equipment before reuse. Read the entire document. This material is not expected to burn or explode in normal conditions, but will burn violently if involved in a fire.

Protective equipment : Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

OBSERVE PRECAUTIONS IN SECTION 8: PERSONAL PROTECTION.

Stop the source of the spill if it is safe to do so. Contain the spill to prevent further contamination of the soil, surface water, or ground water. For additional spill response information refer to the North American Emergency Response Guidebook.

6.2. Environmental precautions

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 dispose of equipment washwater or rinsate into a natural drain or water body. Do not contaminate water when disposing of equipment washwaters or rinsate. This material should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water.

6.3. Methods and material for containment and cleaning up

FOR SPILLS ON LAND:

CONTAINMENT : Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

CLEANUP : Clean up spill immediately and place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

FOR SPILLS IN WATER:

CONTAINMENT : This material will disperse in water. Stop the source of the release. Contain and isolate to prevent further release into soil, surface water and ground water.

CLEANUP : Clean up spill immediately. Absorb spill with inert material. Remove contaminated water for treatment or disposal.

SECTION 7: Handling and storage



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END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

7.1. Precautions for safe handling

HANDLING

: Harmful if absorbed through skin. Harmful if swallowed. Caused moderate eye irritation. Avoid contact with skin, eyes, or clothing.

Wear protective clothing and equipment when handling this product. Goggles or protective eyewear, gloves, long-sleeved shirt, long pants, socks and shoes are appropriate.

Users should wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet.

Information about protection against explosions and fires

Keep ignition sources away – Do not smoke

7.2. Conditions for safe storage, including any incompatibilities

STORAGE

: Keep pesticide in original container only. Do not put concentrate into food or drink containers. Store in a cool, dry place. Do not contaminate water, food or feed by storage or disposal. Store away from foodstuffs.

SECTION 8: Exposure controls/personal protection

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

8.1. Personal protective equipment

EYES & FACE: Do not get this material in your eyes. Eye contact can be avoided by wearing protective eyewear.

RESPIRATORY PROTECTION: Not required

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact can be minimized by wearing protective clothing. Wear chemical-resistant gloves made of any waterproof material.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear
Color	: Light yellow
Odor	: No information available
Odor threshold	: No information available
pH	: No information available
Melting/freezing point	: No information available
Boiling point/boiling range	: No information available
Flash point	: Not applicable
Evaporation rate	: No information available
Flammability (solid, gas)	: No information available
Flammability Limits in Air	



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Upper flammability limits	: Not applicable
Lower flammability limits	: Not applicable
Vapor pressure	: No information available
Vapor density	: No information available
Specific gravity	: No information available
Water solubility	: Soluble in water
Solubility in other solvents	: No information available
Partition coefficient	: No information available
Auto-ignition temperature	: No information available
Decomposition temperature	: No information available
Viscosity	: No information available
Explosive properties	: No information available
Oxidizing properties	: No information available
Density	: 1.096 g/ml

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Product is stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None under normal conditions

10.4. Conditions to avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

Oxidizers, heat, sparks, or open flame

10.6. Hazardous decomposition products

Carbon oxides, Nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Based on an evaluation of the ingredients and/or similar products.

Oral Toxicity LD ₅₀ (rats)	>2000 mg/kg
Dermal Toxicity LD ₅₀	>2000 mg/kg
Inhalation Toxicity LC ₅₀	>2.02 mg/L air
Eye Irritation	Brief and/or minor eye irritation
Skin Irritation	Not a skin irritant in animals
Skin Sensitization	Not a skin sensitizer in animals



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CARCINOGEN CLASSIFICATION

Chemical Name	IARC	OSHA- Select Carcinogens	NTP Carcinogen List
Dinotefuran	Not listed	Not listed	Not listed
Particulates Not Otherwise Classified	Not listed	Not listed	Not listed
Sodium dodecylbenzene sulfonate	Not listed	Not listed	Not listed
Dioctyl sodium sulfosuccinate	Not listed	Not listed	Not listed
Paper fiber (cellulose)	Not listed	Carcinogen	Known Carcinogen
Naphthalene sulfonic acid, polymer with formaldehyde, sodium salt	Not listed	Not listed	Not listed
Lactose Monohydrate	Not listed	Not listed	Not listed

TOXICITY OF DINOTEFURAN TECHNICAL

SUBCHRONIC: Dinotefuran technical was tested in 13-week dietary toxicity studies in rats, mice and dogs. In the rat study, a NOEL of 500 ppm was established, based on reduced body weight gain in females and adrenal cortical vacuolation in males and a NOAEL of 5,000 ppm based on marked growth retardation at 25,000 ppm (adrenal cortical vacuolation not adverse). A NOEL of 25,000 ppm was established in the mouse study based on reduced body weight gain at 50,000 ppm. In the dog 13-week dietary study, a NOEL of 8,000 ppm was established based on reduced body weight gain. No target organs were identified in subchronic inhalation or dermal toxicity studies in rats.

CHRONIC/CARCINOGENICITY: Dinotefuran technical was tested in lifetime studies with rats and mice and a one-year study with dogs. In common with the subchronic studies in these species, no specific target organs could be identified. In the 78-week mouse study a NOAEL of 2500 ppm was established, based on decreased weight gain and a decrease in circulating platelet counts. In the 104-week rat study a NOAEL of 2000 ppm was established, based on a decrease in weight gain in females. There were no treatment-related effects in rats or mice on survival or the nature and incidence of neoplastic and adverse non-neoplastic histomorphological findings in either species at any dose level. In the 52-week dog study a NOAEL of 16000 ppm was established based on decreased weight gain in both sexes and decreased food consumption in females.

NEUROTOXICITY: Dinotefuran did not produce any functional or histomorphological evidence of neurotoxicity in acute (gavage) and 13-week (dietary) neurotoxicity studies in rats. The NOEL for neurotoxicity in the acute study was 1,500 mg/kg, the highest dose level administered. The NOEL for neurotoxicity in the 13-week dietary study was 50,000 ppm. The NOEL for all effects in this study was 5,000 ppm based on reduced body weight gain and food consumption.

DEVELOPMENTAL TOXICITY: In a developmental toxicity study of Dinotefuran technical in rats the maternal NOAEL was 300 mg/kg/day based on reduced weight gain, food consumption and water intake at 1000 mg/kg/day. Dinotefuran technical did not produce developmental effects in rats at doses up to 1000 mg/kg/day (the highest doses tested). In a study with rabbits the maternal NOAEL was 52 mg/kg/day based on reduced weight gain, food consumption and water intake and clinical signs noted at 300 mg/kg/day and pathology findings in the liver and stomach at 125 mg/kg/day and higher. The developmental NOEL was 300 mg/kg/day.



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TOXICITY OF DINOTEFURAN TECHNICAL

REPRODUCTION: Dinotefuran technical was tested in a two-generation rat reproduction study at doses of 0, 300, 1000, 3000 and 10000 ppm. The NOAEL for systemic toxicity in parental animals was 3000 ppm based on decreased body weight gain and food consumption and decreased spleen and thyroid weights at the highest dose level evaluated (10000 ppm). The NOAEL for reproductive effects was 10000 ppm. The NOAEL for effects on the offspring was 3000 ppm based on reduced preweaning weight gain at 10000 ppm.

MUTAGENICITY: Dinotefuran technical was negative in the following in vitro assays: Ames Assay, mouse lymphoma (L5178Y), mammalian cytogenetics (CHL/IU) or DNA Repair. Dinotefuran technical was negative in the following in vivo assays: mouse micronucleus. Overall, Dinotefuran technical does not present a genetic hazard.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

SECTION 12: Ecological information

12.1. Toxicity

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 dispose of equipment washwaters or rinsate into natural drain or water body. Do not contaminate water when disposing of equipment washwaters or rinsate.

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

AVIAN TOXICITY : Dinotefuran Technical is practically nontoxic to moderately toxic to avian species. Test results include:
Oral LD₅₀ quail: greater than 2000 mg/kg
Dietary LC₅₀ Mallard duck: greater than 997.9 ppm
Dietary LC₅₀ quail: greater than 1301 ppm
Reproduction quail: NOEL = 5000 ppm
Reproduction Mallard duck: NOEL = 2000 ppm

AQUATIC ORGANISM TOXICITY : Dinotefuran Technical is practically nontoxic to fish and practically nontoxic to highly toxic to aquatic invertebrate species. Test results include:
LC₅₀ (96 hr) Bluegill Sunfish: greater than 100 mg/L
LC₅₀ (96 hr) Rainbow Trout: greater than 100 mg/L
LC₅₀ (96 hr) Common Carp: greater than 100 mg/L
LC₅₀ (96 hr) Sheepshead Minnow: greater than 109 mg/L
NOEC (early life stage) Rainbow Trout: greater than 10 mg/L
EC₅₀ (48 hr) Daphnia magna: greater than 1000 mg/L
NOEC (lifecycle) Daphnia magna: >10 mg/L
LC₅₀ (96 hr) Mysid Shrimp: 0.79 mg/L
EC₅₀ (96 hr) Oyster Shell Deposition: greater than 141 mg/L
ErC₅₀ (0-72 hr) Algae (P. subcapitata): greater than 100 mg/L

OTHER NON-TARGET ORGANISM TOXICITY : Dinotefuran Technical is highly toxic to bees. The acute oral and contact LD₅₀ in bees were 0.056 ug/bee and 0.022 ug/bee, respectively.



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SECTION 13: Disposal considerations

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

13.1. Waste treatment methods

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

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container or equivalent promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure 2 more times.

DISPOSAL METHODS: After cleaning, if recycling is not available, puncture and dispose of in a sanitary landfill or by incineration or if allowed by State and local authorities by burning. If burned, stay out of smoke.

SECTION 14: Transport information

DOT (ground) SHIPPING NAME : Pesticide, Liquid, Non-regulated

REMARKS : Not regulated for domestic ground transport by U.S. DOT

**EMERGENCY RESPONSE
GUIDEBOOK NO.** : Not applicable

ICAO/IATA SHIPPING NAME : Pesticides, Liquid, Non-regulated

IMDG SHIPPING NAME : Pesticides, Liquid, Non-regulated

SECTION 15: Regulatory information

EPA-FIFRA LABEL INFORMATION THAT DIFFERS FROM OSHA-GHS REQUIREMENTS:

This material is a pesticide product registered by the EPA under FIFRA and is subject to certain labeling requirements under federal pesticide law. These requirements may differ from the classification criteria and hazard information required by OSHA GHS for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the FIFRA pesticide label:

Signal word : CAUTION
Precautionary statements : Avoid breathing vapor or dust
Avoid contact with eyes, skin, and clothing
Powder material may form explosive dust-air mixture.
Keep out of reach of children

PESTICIDE REGULATIONS: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.



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U.S. FEDERAL REGULATIONS: Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

OSHA: This product is considered hazardous under the criteria of the OSHA Hazard Communication Standard 29 CFR Part 1910.1200.

TSCA: This product is exempt from TSCA regulation under FIFRA Section 3(2)(B)(ii) when used as a pesticide.

CERCLA: Reportable Quantity not applicable.

RCRA: It is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

SARA (311, 312):

Immediate Health:	Yes
Chronic Health:	Yes
Fire:	Yes
Sudden Pressure:	No
Reactivity:	No

STATE REGULATIONS: Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

California Addendum (Proposition 65) Safe Drinking Water and Toxic Enforcement Act of 1986.

The following specific warnings are hereby given relative to substances that the State of California has identified as carcinogens and/or reproductive hazards under Proposition 65:

WARNING: This product contains a chemical, n-Methylpyrrolidone (CAS No. 872-50-4), known to the State of California to cause birth defects or other reproductive harm.

SECTION 16: Other information

Disclaimer: The information provided by Rainbow Treecare Scientific Advancements, contained herein is given in good faith and correct to the best of our knowledge. However, the information given is designed only as guidance for safe handling, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

REVISED DATE: September 11, 2019

REVISED FOR: New Product