

**UPI CROPSCIENCE CO., LTD.**

Add: C-312 Hi-tech Information Plaza, No.8 Huatian Road,  
Huayuan, Tianjin City, 300384 P.R. China.

Tel: +86 22 23707836 Fax: +86 22 23707631

<http://www.upicrop.com>

# MATERIAL SAFETY DATA SHEET

## Dinotefuran 50% WG

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b>	Dinotefuran 50% WG
<b>Chemical Name:</b>	( <i>RS</i> )-1-methyl-2-nitro-3-(tetrahydro-3-furylmethyl)guanidine
<b>Type:</b>	Neonicotinoid Insecticide
<b>Molecular formula:</b>	C <sub>7</sub> H <sub>14</sub> N <sub>4</sub> O <sub>3</sub>
<b>Company:</b>	UPI CROPSCIENCE CO., LTD.
<b>Address:</b>	C-312 Hi-Tech Information Plaza No.8 Huatian Road Huayuan Tianjin City 300384 P.R. China.

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS NO.	CONTENT, %
Dinotefuran	165252-70-0	50.0
Inert ingredient	-	50.0

### SECTION 3: HAZARDS IDENTIFICATION

**Caution!** Cause eye and skin irritation.

Route of Entry: Skin absorption, skin contact, eye contact, inhalation, ingestion

### SECTION 4: 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 a 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 doctor for treatment advice.

**INGESTION:** Call a poison control center or doctor immediately for treatment advice. Have a



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person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. INHALATION: Move person to fresh air. If person is not breathing, call an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

### **SECTION 5: FIRE-FIGHTING MEASURES**

FLASH POINT: Not applicable

EXTINGUISHING MEDIA: Water fog, carbon dioxide, foam, dry chemical

FIRE FIGHTING 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 fire fighting. Do not enter any enclosed area without full protective equipment, including self-contained breathing equipment. Contain and isolate runoff and debris for proper disposal. Decontaminate personal protective equipment and fire fighting 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. Dinotefuran becomes self-reactive in high temperatures. Exposure to heat may promote violent decomposition.

HAZARDOUS COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce: Oxides of nitrogen

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

FOR SPILLS ON LAND: CONTAINMENT: Remove all sources of ignition. Ventilate area of leak or spill. Clean-up personnel may require protection from inhalation of dust. Avoid runoff into storm sewers or other bodies of water.

CLEAN UP: Clean up spill immediately in a manner that does not disperse dust into the air 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 or dissolve in water. Stop the source of the release. Contain and isolate to prevent further release into soil, surface water and ground water.

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



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### SECTION 7: HANDLING AND STORAGE

Keep away from all possible sources of ignition (sparks or flame). Avoid high temperatures exceeding 150°C. Keep container closed. Use only with adequate ventilation. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring the material. Use explosion-proof electrical equipment. Take precautionary measures against static discharges. Keep pesticide in original container. Do not store or transport near food or feed. Do not contaminate food or feed. Do not put concentrate into food or drink containers. Do not dilute concentrate in food or drink containers. Store in a cool, dry place, out of direct sunlight.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

**RESPIRATORY PROTECTION:** Use this material only in well ventilated areas. If operating conditions result in airborne concentrations of this material, the use of an approved respirator is recommended.

**SKIN PROTECTION:** Avoid contact with skin or clothing. Skin contact should be minimized by wearing protective clothing including gloves.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Gray granule

**Odor:** Odorless

**Flammability:** Not flammable

**Explosiveness:** Not explosive

**Water solubility:** Dispersible

### SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** Stable under normal condition at normal temperature.

**INCOMPATIBILITY:** Strong oxidizers, heat and sources of ignition.

**OXIDATION/REDUCTION PROPERTIES:** Not an oxidizing or reducing agent.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon oxides, nitrogen oxides sulfur oxides, crystalline silica.



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### SECTION 11: TOXICOLOGICAL INFORMATION

**Acute oral** LD<sub>50</sub> for rats >2000 mg/kg.

**Acute percutaneous:** LD<sub>50</sub> for rats >2000 mg/kg

**Irritation:** Slight irritation to skin and eyes (rabbits).

**Inhalation** LC<sub>50</sub> (4 h) for rats >5.0 mg/L.

**Skin sensitization:** Not a skin sensitizer to guinea pigs.

### SECTION 12: ECOTOXICOLOGY INFORMATION

**The following information is for active ingredient, Dinotefuran**

Birds: Acute oral LD<sub>50</sub> for Japanese quail >2000 mg/kg. LC<sub>50</sub> (5 d) for mallard ducks >5000 ppm (997.9 mg/kg daily), Japanese quail >5000 ppm (1301 mg/kg daily).

Fish: LC<sub>50</sub> (96 h) for carp, rainbow trout and bluegill sunfish >100 ppm.

Daphnia: EC<sub>50</sub> (48 h) >1000 ppm.

Algae: E<sub>b</sub>C<sub>50</sub> (72 h) for *Pseudokirchneriella subcapitata* >100 mg/l.

Other aquatic spp.: LC<sub>50</sub> (48 h) for crayfish 4.84 ppm. LC<sub>50</sub> (96 h) for eastern oysters 141, mysid shrimps 0.79 ppm. EC<sub>50</sub> for *Lemna gibba* >110 ppm.

Bees: Highly toxic to honeybees; LD<sub>50</sub> (oral) 0.023 µg/bee; (contact) 0.047 µg/bee (*EPA Fact Sheet*). Other beneficial spp.: Highly toxic to silkworms

### SECTION 13: DISPOSAL CONSIDERATION

**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:** Non-refillable container. Do not reuse or refill this container. Triple rinse 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. Then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill or by incineration.

**DISPOSAL METHODS:** Check government regulations and local authorities for approved disposal of this material. Dispose of in accordance with applicable laws and regulations.

### SECTION 14: TRANSPORT INFORMATION

**IMDG Code:**

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**Shipping Name:** Environmentally hazardous substance, solid, n.o.s. (Dinotefuran 50% WG)

**Hazard Class:** 9

**UN Number:** 3077

**Packing Group:** III

**IATA DGR:**

**Shipping Name:** Environmentally hazardous substance, solid, n.o.s. (Dinotefuran 50% WG)

**Hazard Class:** 9

**UN Number:** 3077

**Packing Group:** III

**ADR:**

**Shipping Name:** Environmentally hazardous substance, solid, n.o.s. (Dinotefuran 50% WG)

**Hazard Class:** 9

**UN Number:** 3077

**Packing Group:** III

**SECTION 15: REGULATORY INFORMATION**

Follow local regulations.

**SECTION 16: OTHER INFORMATION**

The information contained in the Material Safety Data Sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.