

# MATERIAL SAFETY DATA SHEET



DATE PREPARED: 06/08/2004  
MSDS No: 7201

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** ORTHO® Home Defense® MAX™ Ready-To-Use Insect Killer

**PRODUCT DESCRIPTION:** Insecticide

### MANUFACTURER

The ORTHO Group  
P.O. Box 190  
Marysville, OH 43040

### 24 HR. EMERGENCY TELEPHONE NUMBERS

**CHEMTREC (U.S.):** (800) 424-9300  
**Emergency Phone:** 1-800-225-2883

**EPA REG. NO.:** 239-2633C **PN:** 6061

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>
Bifenthrin	0.05	82657-04-3
Other Ingredients	99.95	

## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

**IMMEDIATE CONCERNS:** CAUSES MODERATE EYE IRRITATION AVOID CONTACT WITH EYES OR CLOTHING  
KEEP OUT OF REACH OF CHILDREN.

### POTENTIAL HEALTH EFFECTS

**EYES:** This substance may cause moderate eye irritation. See Toxicological Information, section 11.

**SKIN:** This substance is not expected to cause skin irritation and is only slightly toxic if absorbed through the skin. See Toxicological Information, section 11.

**INGESTION:** This substance is slightly toxic if swallowed. The degree of injury will depend on the amount absorbed from the gut. See Toxicological Information, Section 11.

**INHALATION:** Overexposure to the spray mist may be irritating to the respiratory tract. If inhaled, this substance is considered practically non-toxic to internal organs. See Toxicological Information, section 11.

## 4. FIRST AID MEASURES

**EYES:** Hold eye 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 treatment advice.

**SKIN:** If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

**INGESTION:** If swallowed, call a poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Never give anything by mouth to an unconscious person.

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

**COMMENTS:** See product label for specific First Aid Measures. The above measures are the most conservative - Pesticide Registration (PR) Notice 2001-1, January 2, 2001, and would apply in the event a product label is not immediately available.

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## 5. FIRE FIGHTING MEASURES

**FLASHPOINT AND METHOD:** None

**EXTINGUISHING MEDIA:** Use CO<sub>2</sub>, Dry Chemical or Foam extinguishing media.

**HAZARDOUS COMBUSTION PRODUCTS:** Heating this material may generate carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen fluoride.

**FIRE FIGHTING PROCEDURES:** 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.

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## 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** While wearing rubber gloves, soak up spilled material with paper towels and discard in trash.

**LARGE SPILL:** Dike or contain release. Keep material out of lakes, streams, ponds, and sewer drains. Large spills should be covered to prevent dispersal. Absorb with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel, or pump all waste material, including absorbent, into drums and label contents for disposal. Clean spill area of residues and absorbent.

**GENERAL PROCEDURES:** Observe all protection and safety precautions when cleaning up spills -- see Section 8. "EXPOSURE CONTROLS/PERSONAL PROTECTION".

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## 7. HANDLING AND STORAGE

**GENERAL PROCEDURES:** Store in cool dry place, preferably in a locked storage area and avoid excess heat. Keep pesticide in original container.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**ENGINEERING CONTROLS:** No special ventilation is necessary under normal product use conditions. However, if workplace operating conditions create high airborne concentrations of the material, special ventilation may be needed to reduce levels below OSHA exposure limits.

### PERSONAL PROTECTION

**EYES AND FACE:** For application of product in accordance with label instructions, no special eye protection is needed. Handling of this product during manufacturing or in the event of an accidental discharge of the material which could cause eye contact, workers should wear goggles or a face shield.

**SKIN:** Follow label precautions for skin protection. Avoid contact with skin and clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

**RESPIRATORY:** Avoid breathing vapor or mist. This product is not likely to pose an airborne exposure concern when handled and used in accordance with label instructions.

### OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

<u>Chemical Name</u>	<u>EXPOSURE LIMITS</u>		
	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>ACGIH STEL</u>
Bifenthrin	None	None	None

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**APPEARANCE:** Clear to cloudy white liquid

**pH:** ~7.0 to 7.3

**SOLUBILITY IN WATER:** Miscible with water.

**DENSITY:** 8.32 Lbs/gal at 20°C

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## 10. STABILITY AND REACTIVITY

**STABLE:** YES

**HAZARDOUS POLYMERIZATION:** NO

**CONDITIONS TO AVOID:** DO NOT APPLY THIS PRODUCT IN OR ON ELECTRICAL EQUIPMENT DUE TO THE POSSIBILITY OF SHOCK HAZARD.

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## 11. TOXICOLOGICAL INFORMATION

### ACUTE

**EYES:** Rabbit - moderately irritating, irritation cleared by 48 hours. EPA FIFRA toxicity category - III.

**DERMAL LD<sub>50</sub>:** Rat = >10 g/kg. EPA FIFRA toxicity category - IV. **SKIN IRRITATION:** Rabbit - nonirritating, contact with bifenthrin may produce reversible skin sensations such as numbness, burning and tingling. The skin sensations usually subside within 12 hours. EPA FIFRA toxicity category - IV.

**ORAL LD<sub>50</sub>:** Rat = > 5 g/kg. EPA FIFRA toxicity Category - IV.

**INHALATION LC<sub>50</sub>:** Rat - 4 hour inhalation = > 5.0 mg/liter. EPA FIFRA toxicity category - IV.

**SENSITIZATION:** Guinea pig - no evidence of allergic skin reactions.

**CHRONIC: CARCINOGENICITY :** Mouse lifetime feeding study - high dose males - demonstrated an increase in urinary bladder hemangiopericytomas. There was no evidence of increased tumors in the other male or female mice dose levels. The mouse no observed effect level (NOEL) was male 75 mg/kg/dy, female 90 mg/kg/dy. Rat lifetime feeding study - no findings of tumors. The rat NOEL was 10 mg/kg/dy. EPA classified bifenthrin - Group C carcinogen.

**NEUROTOXICITY:** Bifenthrin has not been associated with delayed peripheral neuropathy. Overexposure to pyrethroids results in a transient disruption in the depolarization of nerve membranes by interfering with the closing of the sodium channels. Depending upon the degree of overexposure, signs of overexposure may be displayed by tremors, muscle fasciculations, ataxia, spasms, hyperexcitability, hyperactivity and convulsions. Localized skin contact with bifenthrin may result in temporary burning, tingling or numbness sensations.

**TERATOGENICITY:** Bifenthrin is not considered to be a teratogen (a substance that causes birth defects). The rat and rabbit developmental NOELs were 1 and 8 mg/kg/dy, respectively.

**REPRODUCTIVE TOXIN:** Bifenthrin is not considered to cause adverse reproductive effects. Results of a rat multigeneration reproduction study indicated no developmental toxicity or reproductive effects at the highest dose level of approximately 15 mg/kg/dy. The maternal toxicity NOEL was approximately 5 mg/kg/dy.

**MUTAGENICITY:** The results of a series of mutation testing indicate that bifenthrin has a low order of mutagenic potential.

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## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL DATA:** In soil, bifenthrin is stable over a wide pH range and degrades at a slow rate which is governed by soil characteristics. Bifenthrin will also persist in aquatic sediments. Bifenthrin has a high Log Pow (>6.0), a high affinity for organic matter, and is not mobile in soil. Therefore, there is little potential for movement into ground water. There is the potential for bifenthrin to bioconcentrate (BCF = 11,750).

**ECOTOXICOLOGICAL INFORMATION:** Bifenthrin is highly toxic to fish and aquatic arthropods and LC50 values range from 0.0038ug/L to 17.8 ug/L. In general, the aquatic arthropods are the most sensitive species. Care should be taken to avoid contamination of the aquatic environment. Bifenthrin had no effect on mollusks at its limit of water solubility. Bifenthrin is only slightly toxic to both waterfowl and upland game birds (LD50 values range from 1800 mg/kg to >2150 mg/kg).

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## 13. DISPOSAL CONSIDERATIONS

**FOR LARGE SPILLS:** Material collected that cannot be reprocessed should be disposed of in a landfill approved for pesticide

disposal or in accordance with applicable Federal, state, or local procedures.

**PRODUCT DISPOSAL:** Carefully follow all label directions and precautions. If empty: Place in trash or offer for recycling if available. If partially filled: Call your local solid waste agency or 1-800-CLEANUP for disposal instructions.

#### 14. TRANSPORT INFORMATION

**DOT (DEPARTMENT OF TRANSPORTATION)**

**PROPER SHIPPING NAME:** Not Regulated

**U.S. SURFACE FREIGHT CLASS:** Insecticides, Fungicides, Insect or animal repellents or vermin exterminators, NOI, Other than poison

**SPECIAL SHIPPING NOTES:** The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

#### 15. REGULATORY INFORMATION

**UNITED STATES**

**SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA				
ACUTE: YES	CHRONIC: NO	FIRE: NO	REACTIVITY: NO	PRESSURE GENERATING: NO

**STATE REGULATIONS**

**CALIFORNIA PROPOSITION 65:** No ingredients on list.

**GENERAL COMMENTS:** Contact local authorities for disposal of large quantities of unused product.

#### 16. OTHER INFORMATION

**HMIS CODES**

**FLAMMABILITY: 0 HEALTH: 1 PHYSICAL HAZARD: 0**

**NFPA CODES**

**FIRE: 0 HEALTH: 1 REACTIVITY: 0**

**APPROVAL DATE:** 06/08/2004

**REVISION SUMMARY** New MSDS

**ADDITIONAL MSDS INFORMATION:** NFPA/HMIS Hazard Rating: 0=Least; 1=Slight; 2=Moderate; 3=High; 4=Severe.

**COMMENTS:** Use of this product is regulated by the U.S. Environmental Protection Agency (EPA) through the approved product label. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**MANUFACTURER DISCLAIMER:** The information contained herein is, to the best of the Manufacturer's (see Section 1) knowledge and belief, accurate and reliable as of the date of preparation of this document. However, no warranty or guarantee, express or implied, is made as to the accuracy or reliability, and the Manufacturer shall not be liable for any loss or damage arising out of the use thereof. No authorization is given or implied to use any patented invention without a license. In addition, the Manufacturer shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.