MATERIAL SAFETY DATA SHEET

DATE PREPARED:11/16/2004
MSDS No:025756035

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ORTHO® MAX™ Fire Ant Killer Broadcast Granules
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.: 239-2681 **PN:** S9891

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Wt.%	CAS#
Bifenthrin	0.2	82657-04-3
Other Ingredients	99.8	

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: CAUTION - - HARMFUL IF ABSORBED THROUGH SKIN - AVOID CONTACT WITH EYES, SKIN, OR CLOTHING - KEEP OUT OF REACH OF CHILDREN

POTENTIAL HEALTH EFFECTS

EYES: Eye contact may cause temporary discomfort (tearing, reddness, etc.) due to the granular nature of the product.

SKIN: This substance is not expected to cause skin irritation. See Toxicological Information, Section 11.

INGESTION: This substance is slightly toxic if swallowed. See Toxicological Information, Section 11.

INHALATION: If inhaled, this substance is considered practically non-toxic. Breathing the dust may be irritating to the respiratory tract.

ACUTE EFFECTS: Effects from overexposure result from absorption through the skin or may result from inhaling the dust. Contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning, or tingling. These skin sensations are reversible and usually subside within 12 hours.

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.

NOTES TO PHYSICIAN: This product has low oral and dermal toxicity. It is non-irritating to the eyes and skin. This product contains a granular material that may cause mechanical irritation to the eyes. Reversible skin sensations (paresthesia) may occur and

ordinary skin salves have been found useful in reducing discomfort. Treatment is otherwise controlled by removal from exposure followed by symptomatic and supportive care.

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.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use CO2, Dry Chemical or Foam extinguishing media.

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

EXPLOSION HAZARDS: Product is slightly combustible. This material may support combustion at elevated temperatures.

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.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Sweep up spills. Use good housekeeping practices. Avoid contact with clothing, skin, and eyes. Wash hands after handling.

LARGE SPILL: Keep material out of lakes, streams, ponds, and sewer drains. Large spills should be covered to prevent dispersal. For dry material, use a wet sweeping compound or water to prevent the formation of dust. If water is used, prevent dispersion of excess liquid by diking and absorbing with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel, or pump all waste material, including absorbent, into a drum and label contents for disposal. To clean and neutralize spill area, tools, and equipment, wash with a suitable solution of caustic or soda ash, and an appropriate alcohol (methanol, ethanol, or isopropanol). Follow this by washing with a strong soap and water solution. Absorb, as above, any excess liquid and add to the drums of waste already collected.

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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide natural or mechanical ventilation to minimize exposure. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

PERSONAL PROTECTION

EYES AND FACE: Where there is potential for eye contact, wear chemical goggles and have eye wash equipment available.

SKIN: Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type of glove for given application. Wash contaminated skin promptly. Launder contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling. For application of product in accordance with label instructions, no special skin protection is required.

RESPIRATORY: This material may be an inhalation hazard and, unless ventilation is adequate, the use of approved respiratory protection is recommended.

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200):

		EXPOSURE LIMITS	
Chemical Name	**OSHA PEL**	**ACGIH TLV**	**ACGIH STEL**
Bifenthrin	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Granular
ODOR: Faint musty odor.
APPEARANCE: Tan solid granules
DENSITY: 1.39 g/mL

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

CONDITIONS TO AVOID: Avoid contact with heat or open flame.

11. TOXICOLOGICAL INFORMATION

ACUTE

DERMAL LD_{50}: EPA FIFRA Toxicity Category III, LD50 greater than 2,000 mg/kg.

ORAL LD_{50}: Rat = > 5 g/kg. EPA FIFRA toxicity Category - IV.

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 carcinogen no observed effect level (NOEL) for male and female mice was 75 and 90 mg/kg/dy, respectively. Rat lifetime feeding study - no findings of tumors. The rat NOEL was 10 mg/kg/dy. EPA classified bifenthrin - Group C carcinogen.

CARCINOGENICITY:

CARCINOGENICITY COMMENTS: IARC: No; NTP: No; OSHA: No, ACGIH, No.

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. Signs of overexposure may be displayed by tremors, muscle fasciculations, ataxia, spasms, hyperexcitability, hyperactivity and convulsions. Localized skin contact with bifenthrin may result in temporay 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.

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 characteristcs. 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).

GENERAL COMMENTS: This pesticide is extremely toxic to fish and aquatic invertebrates. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters or rinsate.

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: Call local solid waste agency or 1-800-CLEANUP for disposal instructions. Never place unused product down any drain.

EMPTY CONTAINER: Do not reuse this container. Place in trash or offer for recycling if available.

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
MARINE POLLUTANT #1: Bifenthrin - Severe Marine Pollutant

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:** YES	**FIRE:** NO	**REACTIVITY:** NO	**PRESSURE GENERATING:** NO

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Not listed.

STATE REGULATIONS
CALIFORNIA PROPOSITION 65: No ingredients on list.

16. OTHER INFORMATION

NFPA CODES
FIRE: 0 **HEALTH:** 1 **REACTIVITY:** 0

APPROVAL DATE: 11/16/2004

REVISION SUMMARY New MSDS

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

GENERAL STATEMENTS: This document contains health, safety, and environmental information useful to emergency response agencies, health care providers, manufacturers, and workers/employees. It does not replace the precautionary language, use directions, or the storage and disposal information found on the product label.

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 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.