

MATERIAL SAFETY DATA SHEET

DATE PREPARED: 01/02/2001

MSDS No: 7065

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ORTHO® Ortho-Klor® Termite & Carpenter Ant Killer Concentrate**PRODUCT DESCRIPTION:** Insecticide

MANUFACTURER

The ORTHO Group
P.O. Box 1749
Columbus, OH 43216

24 HR. EMERGENCY TELEPHONE NUMBERS

Emergency Phone: 1-800-225-2883**EPA REG. NO.:** 279-3218-239 **PN:** 7065

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>
Bifenthrin	2.4	82657-04-3
Other Ingredients	97.6	

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS: MAY CAUSE EYE AND SKIN IRRITATION

AVOID CONTACT WITH EYES, SKIN, OR CLOTHING

TOXIC TO FISH AND AQUATIC ORGANISMS - KEEP OUT OF DRAINS/WATER SOURCES

KEEP OUT OF REACH OF CHILDREN

POTENTIAL HEALTH EFFECTS

EYES: This substance is slightly irritating to the eyes. Eye contact may include discomfort, tearing, redness, swelling, and blurred vision. See Toxicological Information, Section 11.**SKIN:** This substance can cause skin irritation. Skin irritation may include discomfort, redness and swelling. If absorbed through the skin, this substance is considered practically non-toxic to internal organs.**INGESTION:** Ingestion may cause irritation of the digestive tract. Digestive tract irritation may include nausea, vomiting and diarrhea. If swallowed, this substance is considered practically non-toxic to internal organs. 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.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: None detected at or below 210F (TAG CC).

EXTINGUISHING MEDIA: Use CO₂, dry chemical, or foam extinguishing media. Soft stream water fog only if necessary. Contain all runoff.

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

LARGE SPILL: Liquid spills on floor or other impervious surfaces should be contained or diked, and should be absorbed with attapulgite, bentonite or other absorbent clays. Collect contaminated absorbent, place in plastic-lined metal drum and dispose of in accordance with instructions provided under Section 13. "DISPOSAL". Thoroughly scrub floor or other impervious surface with a strong industrial type detergent solution and rinse with water. For liquid spills that soak into the ground, contact the applicable Federal, State and or County Health Dept. for disposal recommendations. If disposal is required then refer to Section 13 "DISPOSAL" for instructions. Leaking containers should be separated from non-leakers and either the container or its contents transferred to a drum or other non-

leaking container and disposed of in accordance with instructions provided under Section 13 "Disposal". Any recovered spilled liquid should be similarly collected and disposed of. Do not contaminate water, foodstuffs or feed by storage or disposal.

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Store in original containers only. Protect from freezing. Store in a cool, dry place, preferably in a locked storage area and avoid excessive heat. Carefully open containers. After partial use, replace lid and close tightly. Do not put concentrate or dilute material into drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal. Keep out of reach of children and animals.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use this material only in well ventilated areas.

PERSONAL PROTECTION

EYES AND FACE: Wear chemical safety goggles to prevent eye contact during operations such as mixing or transfer or other activities when there is potential for eye contact.

SKIN: Although this product does not present a significant skin concern, minimize skin contamination by following good handling practices. Applicators and other handlers must wear: long sleeved shirt, long pants, and shoes with socks. Wash hands and contaminated skin thoroughly after handling.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Mild odor

APPEARANCE: Clear to cloudy white liquid

pH: ~5.4

DENSITY: 8.52 Lbs/gal at 20°C

SPECIFIC GRAVITY: 1.02 Water = 1.00 at 20°C

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

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

11. TOXICOLOGICAL INFORMATION

ACUTE

EYES: Minimally irritating (rabbit); information based on a similar formulation.

DERMAL LD₅₀: For a similar formulation - Moderately irritating (rabbit), Dermal LD₅₀ > 5 g/kg (rat).

ORAL LD₅₀: The Oral LD₅₀ > 5 g/kg (rat) for a similar formulation containing a 2.4% bifenthrin concentration.

INHALATION LC₅₀: The 4-hour inhalation LC₅₀ = 8.91 mg/L air (rat) for a similar formulation containing a 2.4% bifenthrin concentration.

Bifenthrin may occasionally produce skin sensations such as paresthesia (numbing) or a tingling and/or burning of the skin. These sensations are reversible and typically subside within 12 hours.

SENSITIZATION: A similar formulation containing 2.4% bifenthrin was not found to be a skin sensitizer.

SUBCHRONIC:

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.

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).

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: If necessary to dispose of partially filled product container, securely wrap it in several layers of newspaper and discard in trash.

EMPTY CONTAINER: Do not reuse container. Wrap empty container in several layers of newspaper and discard in trash.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not Regulated

MARINE POLLUTANT #1: Bifenthrin - Severe Marine Pollutant

OTHER SHIPPING INFORMATION: Proper Shipping Name is Environmentally hazardous substances, solid, n.o.s., (bifenthrin), 9, UN3077, PG III, Marine Pollutant, when shipped by bulk or by vessel over water.

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.

16. OTHER INFORMATION

NFPA CODES

FIRE: 1 HEALTH: 1 REACTIVITY: 0

APPROVAL DATE: 11/14/2002

REVISION SUMMARY Revision #: 2

This MSDS replaces the October 16, 2001 MSDS. Any changes in information are as follows:

In Section 5

(Group Field) for Flash Point Flash Point (Operator) Flash Point °F (From)

In Section 16

NFPA Flammability Additional MSDS Information General Statements Section 16 Footnotes

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 (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.