

**MATERIAL SAFETY DATA SHEET****SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**COMPANY ADDRESS:**  
Rite-Kem,  
703 Westmoreland Dr.  
Tupelo, MS 38801

**EMERGENCY TELEPHONE NUMBERS:**  
(800) 424-9300 (CHEMTREC, transportation and spills)  
(800) 900-4000 (Poison Control Center, human health)  
(800) 345-4735 (ASPCA, animal health)

**INFORMATION TELEPHONE NUMBERS:**  
662-840-6060 (RITE-KEM)  
662-840-7007 (RITE-KEM'S FAX)

**PRODUCT NAME** : FIRE ANT GRANULARS

**CHEMICAL NAME** :: (2-methyl[1,1'-biphenyl]-3-yl)methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate; IUPAC: 2-methylbiphenyl-3-ylmethyl (Z)-(1RS)-cis-3-(2-chloro-3,3,3-trifluoroprop-1-enyl)-2,2-dimethylcyclopropanecarboxylate

**CHEMICAL FAMILY** : Synthetic Pyrethroid Pesticide

**MOLECULAR FORMULA:** C<sub>23</sub>H<sub>22</sub>ClF<sub>3</sub>O<sub>2</sub> (bifenthrin)

**PRODUCT CODE** : EPA Reg. No. 51036-394-63292

**SECTION 2 - COMPOSITION, INFORMATION OF INGREDIENTS**

COMPONENT	PERCENTAGE	CAS NUMBER	OSHA PEL	ACIGH TLV
Bifenthrin	0.2%	82657-04-3	Not listed	Not listed

**SECTION 3 - HAZARDS IDENTIFICATION SUMMARY**

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

**EMERGENCY OVERVIEW:** Tan granules with slight to no odor.

**IMMEDIATE CONCERNS:**

- Slightly combustible. May support combustion at elevated temperatures.
- Thermal decomposition and burning may form toxic by-products.
- For large exposures or fire, wear personal protective equipment.
- Highly toxic to fish and aquatic organisms. Keep out of drains and water courses.

**POTENTIAL HEALTH EFFECTS:** Effects from overexposure result from absorption through the skin or may result from inhaling the dust. Overexposure to this product may cause diarrhea. 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.

**MEDICAL CONDITIONS AGGRAVATED:** None presently known.

**SECTION 4 - FIRST AID MEASURES**

**IF SWALLOWED:** Drink 1 or 2 glasses of water. DO NOT give anything by mouth to an unconscious or convulsing person. If discomfort persists, obtain medical attention.

**IF IN EYES:** Flush eyes with plenty of water. See a doctor if irritation develops.

**IF INHALED:** Remove to fresh air. If breathing difficulty or discomfort occurs and persist, get medical attention.

**IF ON SKIN:** Wash with plenty of soap and water.

**SECTION 5 - FIRE FIGHTING MEASURES**

**FLASHPOINT (method):** Not established.

**FLAMMABLE LIMITS (LFL-UFL):** Not established.

**FIRE AND EXPLOSION HAZARD:** Slightly combustible. This material may support combustion at elevated temperatures.

**EXTINGUISHING MEDIA:** Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

**FIREFIGHTING INSTRUCTIONS:** Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Dike and collect water used to fight fire to prevent environmental damage due to run off. Foam or dry chemical fires extinguishing systems are preferred to prevent environmental damage from excessive water run off.

**FIREFIGHTING EQUIPMENT:** Self-contained breathing apparatus with full facepiece. Full firefighting turnout gear (Bunker gear).

**HAZARDOUS COMBUSTION PRODUCTS:** Carbon monoxide and/or carbon dioxide; hydrogen chloride and hydrogen fluoride may be formed.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

Clean up spills immediately, observing precautions in Section 8 of this document.

**SMALL SPILL:** Vacuum or sweep up material and place in a container for reuse or disposal.

**LARGE SPILL:** Same as for small spill. After removal flush and neutralize contaminated area thoroughly with water and a dilute solution of caustic or soda ash and an appropriate alcohol such as methanol, isopropanol or ethanol. Follow this by washing area with a strong soap and water solution. Pick up wash liquid with absorbent and place in chemical waste container for disposal. This material is a water pollutant and should be prevented from entering sewage and drainage systems and bodies of water.

**SECTION 7 - HANDLING AND STORAGE**

**HANDLING:** Use only in a well-ventilated area.

**STORAGE:** Store product in its original labeled container in a cool, dry locked place out of reach of children.

**SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**

**EXPOSURE LIMITS (8 HOUR TWA):** (Refer to Section 3)

**ENGINEERING CONTROLS:** Ventilation is normally required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**PERSONAL PROTECTIVE EQUIPMENT:**

EYE PROTECTION - Safety glasses.

CLOTHING - Long-sleeved shirt and long pants. Shoes plus socks.

GLOVES - Waterproof gloves.

RESPIRATOR - When handling in enclosed areas where exposure limits may be exceeded, use a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

#### **SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL DESCRIPTION:** Tan granule.

**ODOR:** No appreciable odor.

**MOLECULAR WEIGHT (bifenthrin):** 422.88

**BULK DENSITY:** 85 - 89 lbs./cu.ft.

**WATER SOLUBILITY (technical):** 0.2mg/L at 20 C.

#### **SECTION 10 – STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Stable, however may decompose if heated.

**CONDITIONS TO AVOID:** Avoid excessive temperatures and open flame.

**HAZARDOUS POLYMERIZATION:** Product will not undergo polymerization.

#### **SECTION 11 – TOXICOLOGICAL INFORMATION**

**DERMAL LD<sub>50</sub>:** >2000 mg/kg (rabbit)

**ORAL LD<sub>50</sub>:** >5000 mg/kg (rat)

**ACUTE EFFECTS FROM OVEREXPOSURE:** This product has low oral and dermal toxicity. It is non-irritating to the eyes and skin. Excessive exposure to dust may irritate the respiratory system, skin and eyes. This product caused diarrhea in laboratory animals. Bifenthrin does not cause acute delayed neurotoxicity. Experience to date indicates that contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours.

**CHRONIC EFFECTS FROM OVEREXPOSURE:** No data available for the formulation. In studies with laboratory animals, bifenthrin did not cause reproductive toxicity or teratogenicity. Tremors were associated with repeated exposure of laboratory animals to bifenthrin. In lifetime feeding studies conducted with rodents, a slight increase in the incidence of urinary bladder tumors at the highest dose in male mice was considered to be an equivocal response, not evidence of a clear compound-related effect. The overall absence of genotoxicity has been demonstrated in mutagenicity tests with bifenthrin.

**CARCINOGENICITY:**

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: Not Listed (ACGIH)

#### **SECTION 12 – ECOLOGICAL INFORMATION**

Unless otherwise indicated, the data presented below are for the active ingredient.

**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 LC<sub>50</sub> values range from 0.0038 to 17.8 µg/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 water fowl and upland game birds (LD<sub>50</sub> values range from 1,800 mg/kg to >2,150 mg/kg).

#### **SECTION 13 – DISPOSAL CONSIDERATIONS**

**WASTE:** Dispose of in accordance with applicable Federal, state and local laws and regulations.

**CONTAINER:** Refer to product label.

#### **SECTION 14 – TRANSPORT INFORMATION**

**DOT SHIPPING DESCRIPTION:** Insecticides, NOI, other than Poison. NMFC Item 102120.

**DOT HAZARD CLASS:** N/A

**UN NUMBER:** N/A

**DOT PACKING GROUP:** N/A

**DOT PRIMARY/SECONDARY LABEL:** None required.

**DOT PRIMARY/SECONDARY PLACARD:** None required.

**DOT EMERGENCY RESPONSE GUIDE #:** N/A

#### **SECTION 15 – REGULATORY INFORMATION**

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

**SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):** Not listed

**SECTION 311 HAZARD CATEGORIES (40 CFR 370):** Immediate, Delayed

**SECTION 312 THRESHOLD PLANNING QUANTITY (40 CFR 370):** The threshold planning quantity (TPQ) for this product, if treated as a mixture, is 10,000 lbs. This product contains the following ingredients with a TPQ of less than 10,000 lbs.: None

**SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):** There are no ingredients in this product which are subject to Section 313 reporting requirements.

##### **CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)**

**CERCLA REGULATORY (40 CFR 302.4):** Not listed

##### **STATE REGULATIONS**

**PROPOSITION 65 STATEMENT:** There are no ingredients in this product which are subject to the reporting requirements of California Proposition 65.

#### **SECTION 16 – OTHER INFORMATION**

**DISCLAIMER:** The information presented herein is based on available data from reliable sources and is correct to the best of Rite-Kem, Inc. knowledge. Rite-Kem, Inc. makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions. We disclaim all liability for injury or damage stemming from any improper use of the material or product described herein.

**REVISED DATE:** May, 2004 **REVISED FOR:** Initial version