MATERIAL SAFETY DATA SHEET

BaseLine™ PreTreat Termiticide

MSDS Ref. No.: 82657-04-3-143
Date Approved: 10/15/2007
Revision No.: 2

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the EC directive, 2001/58/EC and other regulatory requirements. The information contained herein is for the concentrate as packaged, unless otherwise noted.

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	BaseLine™ PreTreat Termiticide
PRODUCT CODE:	6327
ACTIVE INGREDIENT(S):	Bifenthrin
CHEMICAL FAMILY:	Pyrethroid Pesticide
MOLECULAR FORMULA:	$C_{23}H_{22}ClF_3O_2$ (bifenthrin)
SYNONYMS:	FMC 54800; (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

MANUFACTURER

FMC CORPORATION
Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103
(800) 321-1362 (General Information)
msdsinfo@fmc.com (Email - General Information)

EMERGENCY TELEPHONE NUMBERS

(800) 331-3148 (Medical - U.S.A. & Canada)
(651) 632-6793 (Medical - Collect - All Other Countries)

For leak, fire, spill, or accident emergencies, call:
(800) 424-9300 (CHEMTREC - U.S.A. & Canada)
(703) 527-3887 (CHEMTREC - Collect - All Other Countries)

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

- Amber liquid with an aromatic hydrocarbon odor.
- Moderately combustible. May support combustion if heated above the product's flash point (see Section 9, "Physical and Chemical Properties" below).
- Thermal decomposition an 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.
- Moderately toxic if swallowed and moderately irritating to the skin.

POTENTIAL HEALTH EFFECTS: Effects from overexposure result from either swallowing or coming into contact with the skin. Symptoms of overexposure include bleeding from the nose, tremors and convulsions. 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.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Wt.%	EC No.	EC Class
Bifenthrin	82657-04-3	23.34	None	R25-20-43-50/53; S1/2-23-24-37-38-45-29
Alkyl biphenyl mixture	69009-90-1	<33.4	273-683-8	Not classified
Aliphatic Hydrocarbons	64742-47-8	<13.1	265-149-8	R65; S 2-23-24-62
Surfactant Blend		<8	None	Not classified

4. FIRST AID MEASURES

EYES: Flush with water for at least 15 minutes. If irritation occurs and persists, obtain medical attention.

SKIN: Remove contaminated clothing and thoroughly wash with soap and water. If irritation occurs and persists, contact a medical doctor.

INGESTION: Do not induce vomiting and do not give liquids of any kind to the person. Never give anything by mouth to an unconscious person. See a medical doctor immediately.

INHALATION: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention.

NOTES TO MEDICAL DOCTOR: This product is moderately toxic if swallowed and is expected to have low dermal toxicity. It is moderately irritating to the skin and mildly irritating to the eyes. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Contains aromatic hydrocarbons that may produce a severe pneumonitis if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Foam, CO_2 or dry chemical. Soft stream water fog only if necessary. Contain all runoff.

FIRE / EXPLOSION HAZARDS: Moderately combustible. When heated above the flash point, this material releases vapors which, when mixed with air, can burn or be explosive.

FIRE FIGHTING PROCEDURES: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors generated.

6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES: Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8, "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of the area.

Keep material out of lakes, streams, ponds and sewer drains. Dike to confine spill and absorb with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal.

To clean and neutralize contaminated area, scrub area with a solution of detergent (e.g. commercial product such as SuperSoap™, Tide®, Spic and Span®, or other high pH detergent) and water. Let solution sit for 5 minutes. Use a stiff brush to scrub affected area. Repeat if necessary to remove visible staining. Additional decontamination can be made by applying bleach (Clorox® or equivalent) to affected area.

Absorb wash-liquid as noted above, remove visibly contaminated soil and place into recovery / disposal container (plastic, open-top steel drum or equivalent). Place all clean-up material in a container, seal and dispose of in accordance with the method outlined in Section 13 "Disposal Considerations" below.

For further information on spill clean-up, waste disposal, or return of salvaged product, call the FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

7. HANDLING AND STORAGE

HANDLING AND STORAGE: Store in a cool, dry, well-ventilated place. Do not use or store near heat, open flame or hot surfaces. Store in original containers only. If crystals are observed, warm to above 60°F (15.4°C) by placing container in warm location. Shake or roll container periodically to dissolve solids. Do not use external source of heat for warming container. Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	ACGIH	OSHA	Supplier
Aliphatic Hydrocarbons	10 mg/m^3 (STEL)	5 mg/m^3 (PEL)	

ENGINEERING CONTROLS: Use local exhaust at all process locations where vapor or mist may be emitted. Ventilate all transport vehicles prior to unloading.

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: For splash, mist or spray exposure, wear chemical protective goggles or a face shield.

RESPIRATORY: For splash, mist or spray exposure wear, as a minimum, a properly fitted air-purifying respirator with an organic vapor cartridge (OV) or canister with any R, P or HE prefilter (approved by U.S. NIOSH/MSHA, EU CEN or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

PROTECTIVE CLOTHING: Depending upon concentrations encountered, wear coveralls or long-sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body cover barrier suit, such as a PVC suit. Leather items - such as shoes, belts and watchbands - that become contaminated should be removed and destroyed. Launder all work clothing before reuse (separately from household laundry).

GLOVES: Wear chemical protective gloves made of materials such as nitrile, neoprene or Viton® brand. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks.

WORK HYGIENIC PRACTICES: Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking, chewing gum, or using tobacco. Shower at the end of the workday.

COMMENTS:

Personal protective recommendations for mixing or applying this product are prescribed on the product label. Information stated above provides useful, additional guidance for individuals whose use or handling of this product is not guided by the product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR:	Aromatic hydrocarbon
APPEARANCE:	Amber liquid
DENSITY / WEIGHT PER VOLUME:	8.59 lb/gal. (1031 g/L)
FLASH POINT:	67 - 70°C (153 - 158°F)
MOLECULAR WEIGHT:	422.9 (bifenthrin)
pH:	3.9
SOLUBILITY IN WATER:	Emulsifies
SPECIFIC GRAVITY:	1.031 @ 20°C (water = 1)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID:	Excessive heat and fire.
STABILITY:	Stable
POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Mildly irritating (rabbit)

SKIN EFFECTS: Moderately irritating (rabbit)

DERMAL LD_{50}: > 2,000 mg/kg (rabbit)

ORAL LD_{50}: 153 mg/kg (rat)

ACUTE EFFECTS FROM OVEREXPOSURE: This product is moderately toxic if swallowed and is expected to have low dermal toxicity. It is moderately irritating to the skin and mildly irritating to the eyes. Large doses of bifenthrin ingested by laboratory animals produced signs of toxicity including convulsions, tremors and bloody nasal discharge. 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. Contact with phenylsulfonate may be corrosive to the skin and severely irritating to the eyes. Inhalation of aromatic hydrocarbon vapors may cause dizziness, disturbances in vision, drowsiness, respiratory irritation, and eye, skin and mucous membrane irritation. Inhalation of aliphatic hydrocarbon vapors may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous

system effects. Vomiting after ingestion of this product may cause aspiration of hydrocarbon solvents into the lungs, which may result in fatal pulmonary edema.

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 laboratory animals, 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. Chronic exposure to aromatic hydrocarbons may cause headaches, dizziness, loss of sensations or feelings (such as numbness), and liver and kidney damage.

CARCINOGENICITY:

NTP:	Not listed
IARC:	Not listed
OSHA:	Not listed
OTHER:	Not Listed (ACGIH)

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 that is governed by soil characteristics. Bifenthrin will also persist in aquatic sediments. Bifenthrin has a high Log Pow (6.6), 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 <2,000).

ECOTOXICOLOGICAL INFORMATION: Bifenthrin is highly toxic to fish and aquatic arthropods and LC_{50} 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 waterfowl and upland game birds (LD_{50} values range from 1,800 mg/kg to >2,150 mg/kg).

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Open dumping or burning of this material or its packaging is prohibited. If spilled material cannot be disposed of by use according to label instructions, an acceptable method of disposal is to incinerate in accordance with local, state and national environmental laws, rules, standards and regulations. However, because acceptable methods of disposal may vary by location and regulatory requirements may change, the appropriate agencies should be contacted prior to disposal.

EMPTY CONTAINER: Non-returnable containers that held this material should be cleaned, prior to disposal, by triple rinsing. Containers which held this material may be cleaned by being triple-

rinsed, and recycled, with the rinsate being incinerated. Do not cut or weld metal containers. Vapors that form may create an explosion hazard.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

PACKAGING TYPE:	Non-Bulk
PROPER SHIPPING NAME:	Pyrethroid pesticide, liquid, toxic
TECHNICAL NAME(S):	Bifenthrin
PRIMARY HAZARD CLASS / DIVISION:	6.1
UN/NA NUMBER:	UN 3352
PACKING GROUP:	III
LABEL(S):	6.1
PLACARD(S):	6.1
MARKING(S):	Pyrethroid pesticide, liquid, toxic (bifenthrin), UN 3352
ERG NUMBER:	151

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355, APPENDIX A):
Not listed

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

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; however, this product contains the following ingredients with a TPQ of less than 10,000 lbs.:
None

SECTION 313 REPORTABLE INGREDIENTS (40 CFR 372):
This product contains the following ingredients subject to Section 313 reporting requirements:
Bifenthrin

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA DESIGNATION & REPORTABLE QUANTITIES (RQ) (40 CFR 302.4):
Not listed

FEDERAL INSECTICIDE FUNGICIDE RODENTICIDE ACT
U.S. EPA Signal Word: WARNING

INTERNATIONAL LISTINGS

Australian Hazard Code: 2X

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16. OTHER INFORMATION

NFPA

Health	2
Flammability	2
Reactivity	0
Special	

NFPA = National Fire Protection Association

Degree of Hazard Code:
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant

REVISION SUMMARY:
This MSDS replaces Revision #1, dated September 8, 2006.
Section 1 (Product and Company Identification)
Section 15 (Regulatory Information)
Section 16 (Other Information)

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