MATERIAL SAFETY DATA SHEET

FIRSTLINE™ GT plus TERMITE BAIT STATION

MSDS Ref. No: 4151-50-2-9
Version: Global
Date Approved: 08/13/1998
Revision No: 1

This document has been prepared to meet the requirements of the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200; the EC directive, 91/155/EEC and other regulatory requirements. The information contained herein is for the concentrate as packaged, unless otherwise noted.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FIRSTLINE™ GT plus TERMITE BAIT STATION
PRODUCT CODE: 6031
ACTIVE INGREDIENT: Sulfluramid
CHEMICAL FAMILY: Fluoroaliphatic sulfonamide
MOLECULAR FORMULA: $C_{10}H_6F_{17}NO_2S$ (sulfluramid)
SYNONYMS: FMC 66898; GX071; F1898; N-ethyl perfluorooctanesulfonamide; IUPAC: N-ethyl perfluoro-octane-1-sulfonamide

MANUFACTURER

FMC CORPORATION
Agricultural Products Group
1735 Market Street
Philadelphia, PA 19103 USA
General Information: 800-321-1362

Emergency Telephone Numbers:

Emergency Phone (FMC)
800-331-3148 (U.S.A. & Canada)
Emergency Phone (FMC)
716-735-3765 (Reverse Charges)
CHEMTREC (800) 424-9300
(U.S.A. & Canada)
(202) 483-7616 (All other countries)

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS #	Wt.%	PEL/TLV	EC No.	EC Class
Sulfluramid	4151-50-2	0.01	None	None	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

IMMEDIATE CONCERNS:

- Brown to tan, odorless, solid (cardboard treated with 100 ppm).
- Combustible. Will support combustion at elevated temperatures.
- Thermal decomposition and burning may form toxic by-products.
- For large exposures or fire, wear personal protective equipment.
- Slightly toxic to fish and aquatic organisms. Keep out of drains and water courses.

POTENTIAL HEALTH EFFECTS: Effects from overexposure result from swallowing this product. Symptoms of overexposure include diarrhea.

MEDICAL CONDITIONS AGGRAVATED: None presently known.

4. FIRST AID MEASURES

EYES: Flush with plenty of water. Get medical attention if irritation occurs and persists.

SKIN: Wash with plenty of soap and water.

INGESTION: Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. If any discomfort persists, obtain medical attention.

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

NOTES TO MEDICAL DOCTOR: This product is expected to have low oral, dermal and inhalation toxicity. It is expected to be practically non-irritating to the skin and eyes. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Foam, CO2 or dry chemical. Soft stream water fog only if necessary. Contain all runoff.

EXPLOSION HAZARDS: Combustible. May support combustion at elevated temperatures.

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.

HAZARDOUS DECOMPOSITION PRODUCTS: May produce hydrogen fluoride.

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6. ACCIDENTAL RELEASE MEASURES

RELEASE NOTES:

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.

To clean spill area, wash with a solution of soap and water. Sweep or scrape up material, place it into a container, and label contents. Dispose of containerized wastes according to the method given in Section 13, "Disposal Considerations".

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7. HANDLING AND STORAGE

GENERAL PROCEDURES: 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. Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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

PERSONAL PROTECTIVE EQUIPMENT

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

RESPIRATORY: For dust exposure wear, as a minimum, a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (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).

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

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

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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

ODOR: Odorless

APPEARANCE: Brown to tan solid (cardboard 100 ppm)

SOLUBILITY IN WATER: Insoluble

MOLECULAR WEIGHT: 527.2 (sulfluramid)

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Excessive heat and fire.

STABILITY: Stable

POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION

DERMAL LD_{50}: >2000 mg/kg (rat)

ORAL LD_{50}: >5000 mg/kg (rat)

INHALATION LC_{50}: >4.4 mg/L/4 hr (rat) (sulfluramid)

SENSITIZATION: A similarly-formulated product produces moderate skin sensitization in laboratory animals, and may produce similar effects in humans.

ACUTE EFFECTS FROM OVEREXPOSURE: This product is expected to have low oral, dermal and inhalation toxicity. It is expected to be practically non-irritating to the skin and eyes. Large doses of a similarly-formulated product, administered to laboratory animals, have produced symptoms such as diarrhea and abdominogenital staining.

CHRONIC EFFECTS FROM OVEREXPOSURE: No data available for the formulation. In a battery of tests, sulfluramid was shown to be non-mutagenic. Sulfluramid was shown to be non-teratogenic in developmental toxicity studies with laboratory animals. Preliminary studies in dogs suggest that the ingestion of high doses for prolonged periods may arrest spermatogenesis.

CARCINOGENICITY:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: (ACGIH) Not listed

COMMENTS: The data presented above are for a similarly-formulated product, or for the active ingredient, as noted.

12. ECOLOGICAL INFORMATION

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

ENVIRONMENTAL DATA: Sulfluramid has a Log Pow of >6.85, is considered immobile in soil, and is unlikely to enter groundwater.

ECOTOXICOLOGICAL INFORMATION: Sulfluramid is considered slightly toxic to fish and aquatic arthropods (LC50 values >6.6 - 10 mg/L). The toxicity to birds is considered moderate by single oral exposure, but high when the exposure is via the diet. The oral LD50 in bobwhite quail is 474 mg/kg, while the dietary LC50 is 300 ppm. The dietary LC50 in the mallard is 165 ppm.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Open dumping or burning of this material or its packaging is prohibited. Empty containers can be disposed of with ordinary household trash, as per label recommendations.

EMPTY CONTAINER: For larger quantities, as in the case of spills, the preferred method of disposal is to incinerate in accordance with local, state and national laws and regulations. If this method is not available, then dispose of empty container in a sanitary landfill. However, because acceptable methods of disposal may vary by location, and regulatory requirements may change, contact the appropriate regulatory authority prior to disposal.

14. TRANSPORT INFORMATION

U.S. DOT (DEPARTMENT OF TRANSPORTATION)

REPORTABLE QUANTITY (RQ): None

U.S. SURFACE FREIGHT CLASS: Insecticides, NOI, other than Poison. NMFC Item 102120.

MARINE POLLUTANT #1: Not listed

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

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.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355): Not listed

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT)

CERCLA REGULATORY (40 CFR 302.4): Not listed

COMMENTS: Australian Hazard Code : 3XE

U.S. EPA Signal Word : CAUTION

16. OTHER INFORMATION

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Section(s) Revised : New Format