

MATERIAL SAFETY DATA SHEET

MICRO FLO COMPANY
P.O. BOX 772099
MEMPHIS, TN 38117

EMERGENCY TELEPHONE NUMBERS:

Human Health or Animal Health, call : 1 (800) 832-4357
Transportation or Spill, call CHEMTREC: 1 (800) 424-9300

Product No.: 58A096

Bifenthrin 7.9%

MICRO FLO COMPANY

Date Prepared: 9/15/2003 Date Revised: 10/7/2003

SECTION I

Trade Name: Bifenthrin 7.9%

Chemical Name: (2-methyl[1,1'-biphenyl]-3-yl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate

Synonyms: Bifenthrin

Formula: C23 H22 Cl F3 O2

Chemical Family: pyrethroid

Mol Wt: 422.87

SECTION II - INGREDIENTS

COMPONENT	CAS NO.	%	PEL/TLV - SOURCE
Bifenthrin technical*	82657-04-3	7.9	Not established
Other ingredients		92.1	Not established

SARA Title III Section 313: *Listed

SECTION III - PHYSICAL DATA

BOILING/MELTING POINT@760mm Hg: N/A pH: 6.4 (1% solution)

VAPOR PRESSURE mmHg @ 20°C: N/A

SPECIFIC GRAVITY OR BULK DENSITY: 1.017 g/cm3

SOLUBILITY IN WATER: Soluble

APPEARANCE: Liquid - off white

ODOR: Sweetish

INTENSITY: N/A

SECTION IV - FIRE AND EXPLOSION DATA

FLASH POINT (TEST METHOD): >200 °F

AUTOIGNITION TEMP: N/A

FLAMMABILITY LIMITS IN AIR (% BY VOL):

LOWER: N/A

UPPER: N/A

NFPA 704 HAZARD CODES

HEALTH: 2

FLAMMABLE: 1

INSTABILITY: 0

OTHER: N/A

NFPA 30 STORAGE CLASSIFICATION: IIIB

EXTINGUISHING MEDIUM Use water fog, foam, CO(2), or dry chemical extinguishing media.

SPECIAL FIREFIGHTING PROCEDURES Firefighters should be equipped with self-contained breathing apparatus and turnout gear.

UNUSUAL FIRE EXPLOSION HAZARDS None known. In a fire, may decompose to form toxic by-products.

SELECT ACRONYM KEY

N/A - Not available; N/D - Not determined; N/R - Not rated; N/E - Not established

SECTION V - HEALTH DATA**TOXICOLOGICAL TEST DATA:**

Data for a similar product:

Rat, Oral LD50 = 632 mg/kg

Rat, inhalation LC50 (1 hr) = 11.58 mg/L

Rabbit, Dermal LD50 > 2000 mg/kg

Rabbit, Skin Irritation - Nonirritating

Rabbit, Eye Irritation - Moderately irritating

Guinea pig, Dermal Sensitizer - Potential sensitizer

Information on Bifenthrin:

Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

In long-term animal studies in which the substance was given in high concentrations by feed, a possible carcinogenic effect was observed.

The substance is not considered to pose a carcinogenic risk at low human exposure levels.

In animal studies, the substance showed a developmental toxic effect in high doses which were maternally toxic.

The results of animal studies gave no indication of a fertility impairing effect.

OSHA, NTP, or IARC Carcinogen: No

EFFECTS OF OVEREXPOSURE:

See Product Label and Directions For Use for additional precautionary statements.

CAUTION: Keep out of reach of children.

Harmful if swallowed, inhaled or absorbed through skin.

Causes moderate eye irritation.

Avoid breathing vapor or spray mist.

In animal studies, large doses of bifenthrin caused convulsions, tremors and bloody nasal discharge.

Contact with the skin may produce distressing paresthesias that rarely persist more than 24 hours. Severe exposure may cause acute neurotoxicity.

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation.

Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

FIRST AID PROCEDURES

If swallowed: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If in eyes: Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

Note to physician: Hazards: Contact with the skin may produce distressing paresthesias that rarely persist more than 24 hours. Severe exposure may cause acute neurotoxicity.

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote. If large amounts have been ingested and patient is seen within an hour of ingestion, gastrointestinal decontamination should be considered.

Note: Have the product container or label with you when calling a poison control center or doctor or going for treatment.

SECTION VI - REACTIVITY DATA**STABILITY:** Stable**CONDITIONS TO AVOID:** Avoid all sources of ignition: heat, sparks, open flame.**CHEMICAL INCOMPATIBILITY:** N/A**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide, Carbon dioxide, HCl, HF.**HAZARDOUS POLYMERIZATION:** Does not occur**CONDITIONS TO AVOID:** None known.**CORROSIVE TO METAL:** Not anticipated**OXIDIZER:** N/A**SECTION VII - PERSONAL PROTECTION**

PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions For Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory Protection:

Respiratory protection equipment must be approved for use with pesticides.

Hand Protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4mm), chloroprene rubber (0.5mm), polyvinylchloride (0.7mm) and other.

Eye Protection:

Tightly fitting safety goggles (splash goggles) (EN 166).

Body Protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit.
(according to DIN-EN 465).

SECTION VIII - ENVIRONMENTAL DATA**ENVIRONMENTAL TOXICITY DATA**

Information on Bifenthrin:

Rainbow Trout, 96h LC50 = 0.00015 mg/L

Bluegill Sunfish, 96h LC50 = 0.00035 mg/L

Daphnia magna, 48h LC50 = 0.00016 mg/L

Bobwhite Quail, Oral LD50 = 1800 mg/kg

Mallard Duck, Oral LD50 = 2150 mg/kg

Honeybee Contact LD50 = 0.0146 ug/bee

SARA 311/312 REPORTING

FIRE:N PRESSURE:N REACTIVITY:N ACUTE:Y CHRONIC:Y TPQ(lbs): 10,000

SPILL AND LEAK PROCEDURES:

In case of large scale spillage of this substance/product, avoid contact, isolate area, and keep out animals and unprotected persons. In case of small scale spillage of this substance/product, wear personal protective equipment as specified on the label.

Pick up with inert absorbent material (e.g. clay or diatomaceous earth). Place into suitable container for disposal.

HAZARDOUS SUBSTANCE SUPERFUND: No RQ(lbs): None

WASTE DISPOSAL METHOD:

Pesticide wastes are regulated.

If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

This product is not regulated by RCRA.

HAZARDOUS WASTE 40CFR261: No HAZARDOUS WASTE NUMBER: None

CONTAINER DISPOSAL:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Incinerate or dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

SECTION IX - SHIPPING DATA - PACKAGE AND BULK

D.O.T. PROPER SHIPPING NAME (49CFR172.101-102):

See below

HAZARDOUS SUBSTANCE (49CFR CERCLA LIST):

No

RQ(lbs): None

D.O.T. HAZARD CLASSIFICATION (CFR 172.101-102):**PRIMARY**

See below

SECONDARY**D.O.T. LABELS REQUIRED (49CFR172.101-102):**

See below

D.O.T. PLACARDS REQUIRED (CFR172.504):

See below

POISON CONSTITUENT (49CFR172.203(K)):

See below

BILL OF LADING DESCRIPTION

This product is not regulated by the Department of Transportation for land or air transportation. Describe as: Insecticides, NOIBN. For shipment by water, describe as: Environmentally hazardous substances, liquid, n.o.s. (bifenthrin 7.9%), 9, UN 3082, PG III, ERG 171.

CC NO.:

UN/NA CODE: See above

SECTION X - ADDITIONAL INFORMATION**Bifenthrin 7.9%**

EPA Reg. No. See the FIFRA label

KEEP OUT OF REACH OF CHILDREN**CAUTION****Complete Label and Directions For Use are attached to the product.****Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Micro Flo Company

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