

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.: 58A084

Permethrin Pro

MICRO FLO COMPANY

Date Prepared: 12/16/2003 Date Revised:

SECTION I			
Trade Name: Permethrin Pro			
Chemical Name: (3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate			
Synonyms: Permethrin low odor formulation		Formula: C(21) H(20) Cl(2) O(3)	
Chemical Family: Pyrethroid insecticide		Mol Wt: 391.3	
SECTION II - INGREDIENTS			
COMPONENT	CAS NO.	%	PEL/TLV - SOURCE
Permethrin*	52645-53-1	36.8	None established
n-methylpyrrolidone*	872-50-4	13.5	10 ppm (AIHA WEEL 8 hr TWA)
Proprietary ingredients		49.7	
SARA Title III Section 313: *Listed			
SECTION III - PHYSICAL DATA			
BOILING/MELTING POINT@760mm Hg: N/A		pH: 4.7 (1% solution)	
VAPOR PRESSURE mmHg @ 20°C: N/A			
SPECIFIC GRAVITY OR BULK DENSITY: 1.1 g/mL			
SOLUBILITY IN WATER: Emulsifiable			
APPEARANCE: Amber liquid		ODOR: solvent-like	INTENSITY: mild
SECTION IV - FIRE AND EXPLOSION DATA			
FLASH POINT (TEST METHOD): 144 °F		AUTOIGNITION TEMP: N/A	
FLAMMABILITY LIMITS IN AIR (% BY VOL):		LOWER: N/A	UPPER: N/A
NFPA 704 HAZARD CODES			
HEALTH: 1	FLAMMABLE: 2	INSTABILITY: 1	OTHER: N/R
NFPA 30 STORAGE CLASSIFICATION: IIIA			
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 998 mg/kg

Rabbit, Dermal LD50 > 2000 mg/kg

Rat, Inhalation LC50 (4 hr) > 4.3 mg/L

Rat, Inhalation LC50 (1 hr, calculated) >17.2 mg/L

Moderately irritating to skin.

Minimally irritating to the eyes.

For permethrin:

Permethrin is not a sensitizer (guinea pig).

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.

No reproductive toxic effects reported.

No teratogenic effects reported.

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.

OSHA, NTP, or IARC Carcinogen: No

EFFECTS OF OVEREXPOSURE:

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

Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin, eyes or clothing.

Avoid breathing dust (vapor or spray mist). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Based on animal studies, signs of permethrin poisoning may include nausea and vomiting, shortness of breath or abnormal rapid breathing and a feeling of general weakness and exhaustion.

Permethrin caused tremors and convulsions in dogs, tremors, whole body tremors, convulsions, and hyperactivity in rats.

Contact with the skin may produce distressing paresthesias (sensation of pricking, tingling, or creeping on the skin) that rarely last more than 24 hours.

Workers occupationally exposed to permethrin reported skin and eye irritation.

For n-methylpyrrolidone (NMP):

Contact with the liquid can result in irritation. Skin contact should be avoided. Prolonged skin contact may result in redness and dermatitis. NMP is moderately toxic by all routes of exposure; however, due to its low vapor pressure, dermal exposure represents the primary hazard in most settings. Contact with the liquid results in moderate eye irritation and may cause temporary corneal clouding. Skin contact results in mild irritation; prolonged skin contact may cause redness and dermatitis. Inhalation of the vapors of NMP may result in respiratory irritation. Accidental ingestion of the liquid causes gastric disturbances and may result in nausea and vomiting.

Medical conditions aggravated by overexposure: Skin contact may aggravate existing dermatitis

FIRST AID PROCEDURES

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

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 eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Note to physician:	Severe exposure may cause neurotoxicity. Because of the increased risk of chemical pneumonia or pulmonary edema caused by aspiration of the hydrocarbon solvent, vomiting should be induced only under professional supervision. Aspiration of this product during induced emesis can result in lung injury. If evacuation of stomach contents is considered necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Treatment is controlled removal of exposure followed by symptomatic and supportive care.
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. If crystals form, store at room temp. (70 °F) and shake container.

CONDITIONS TO AVOID: Store in original container in a cool (>40 °F) dry place away from food or feed.

CHEMICAL INCOMPATIBILITY: Oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, HCl

HAZARDOUS POLYMERIZATION: Not applicable

CONDITIONS TO AVOID: Not applicable

CORROSIVE TO METAL: Not expected

OXIDIZER: No

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:

Supplied air respirators should be worn if large quantities of mist/dust are generated or prolonged exposure possible.

Eye Protection:

Chemical goggles when respirator does not provide eye protection.

Protective Clothing:

Chemically resistant suit, chemically resistant boots, and neoprene gloves as necessary to minimize skin contact.

Ventilation:

Whenever possible, engineering controls should be used to minimize the need for personal protective equipment.

SECTION VIII - ENVIRONMENTAL DATA

ENVIRONMENTAL TOXICITY DATA

Permethrin is highly toxic to fish (LC50 = 0.5 ug/L to 315 ug/L).

Permethrin is highly toxic to aquatic arthropods (LC50 = 0.02 ug/L to 7.6 ug/L).

Permethrin is slightly toxic to birds (oral LD50 > 3600 mg/kg).

SARA 311/312 REPORTING					
FIRE: Y	PRESSURE: N	REACTIVITY: N	ACUTE: Y	CHRONIC: Y	TPQ(lbs): N/A
SPILL AND LEAK PROCEDURES:					
<p>In case of large scale spillage of this product, avoid contact, isolate area and keep out animals and unprotected persons. Call CHEMTREC (800 424-9300). For a small spill, wear personal protective equipment as specified on the label.</p> <p>FOR A LIQUID SPILL: Dike and contain the spill with inert material (sand, earth, etc.) and transfer the liquid and solid diking materials to separate containers for disposal.</p>					
HAZARDOUS SUBSTANCE SUPERFUND:			Yes	RQ(lbs): N/A	
WASTE DISPOSAL METHOD:					
<p>Pesticide wastes are regulated. Wastes resulting from this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions, contact the state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.</p>					
HAZARDOUS WASTE 40CFR261:			No	HAZARDOUS WASTE NUMBER: None	
CONTAINER DISPOSAL:					
<p>FOR PLASTIC CONTAINERS: Triple rinse (or equivalent) and add rinsate to the spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.</p> <p>FOR BULK CONTAINERS: Reusable containers should be returned to the point of purchase for cleaning and re-filling.</p> <p>FOR MINIBULK CONTAINERS: Clean all tanks on an approved loading pad so rinsate can be collected and mixed into the spray solution or into a dedicated tank. Using a high pressure sprayer, rinse several times with small volumes of water to minimize rinsate</p>					
SECTION IX - SHIPPING DATA - PACKAGE AND BULK					
D.O.T. PROPER SHIPPING NAME (49CFR172.101-102):			HAZARDOUS SUBSTANCE (49CFR CERCLA LIST):		
See below			None		
			RQ(lbs): N/A		
D.O.T. HAZARD CLASSIFICATION (CFR 172.101-102):			SECONDARY		
PRIMARY					
See below					
D.O.T. LABELS REQUIRED (49CFR172.101-102):		D.O.T. PLACARDS REQUIRED (CFR172.504):		POISON CONSTITUENT (49CFR172.203(K)):	
See below		See below		See below	
BILL OF LADING DESCRIPTION					
See Bill of Lading Description					
CC NO.:			UN/NA CODE:		

SECTION X - ADDITIONAL INFORMATION**Permethrin Pro**

For n-methylpyrrolidone: **WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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

P.O. Box 772099
Memphis, TN 38117
1 (800) 451-8461

DISCLAIMER

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