

Permethrin E-Pro

Termiticide / Insecticide

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Permethrin E-Pro
Termiticide/Insecticide

Active Ingredient: Permethrin
Chemical Formula: C₂₁H₂₀Cl₂O₃

COMPANY IDENTIFICATION:

Etigra
501 Cascade Pointe Lane
Suite 103
Cary, NC 27513
www.etigra.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Permethrin	CAS No. 52645-53-1	36.8%
Other Ingredients, Including:		63.2%
Hydrocarbon Solvent; CAS No. 8052-41-3; 26.0%; TWA: 100 ppm (OSHA)		
Triacetin; CAS No. 102-76-1; 25.9%		
Surfactant Blend, No CAS No.; <10.0%		
Component of product ingredients include:		
1,2,4-trimethylbenzene; CAS No. 95-63-6; <4.0%; TWA: 25 ppm (OSHA) and ethylbenzene; CAS No. 100-41-4; >0.03%; TWA: 100 ppm (OSHA)		

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Harmful if swallowed, inhaled, or absorbed through the skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove contaminated clothing and wash before reuse.

POTENTIAL HEALTH EFFECTS: Effects from overexposure result from ingestion or contact with the skin or eyes. Symptoms of overexposure include increased hypersensitivity to touch and sound, tremors and convulsions. Contact with permethrin may produce skin sensations such as numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
None known

4. FIRST AID

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person, and do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth 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 by 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 the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: Permethrin E-Pro has low oral, dermal and inhalation toxicity. It is mildly irritating to the eyes and skin. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. This product contains aromatic hydrocarbons that may produce a severe pneumonitis

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REV 1006

Etigra
Emergency Phone: Chemtrec 800-424-9300
Effective Date: November 9, 2004
EPA Reg. No. 79676-2


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if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Treatment is otherwise controlled by removal of exposure followed by symptomatic and supportive care.

5. FIRE-FIGHTING MEASURES

Flash point: 44°C (111°F)

Fire and Explosion Hazards: Moderately combustible. When heated above the flash point, this material releases vapors which, when mixed with air, can burn or be explosive.

Suitable Extinguishing Media: Foam, CO₂, or Dry Chemical. Soft stream water fog only if necessary. Contain all runoff.

Fire Fighting Instructions: Isolate fire. Evacuate unnecessary personnel downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapors generated.

Hazardous Decomposition Products: Heat and fire may result in thermal decomposition and the release of carbon monoxide and/or carbon dioxide, chlorine and hydrogen chloride.

6. ACCIDENTAL RELEASE MEASURES

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 area.

Keep material out of lakes, streams, ponds, and sewer drains. Dike to confine the 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 spill area, tools and equipment, wash with a suitable solution of caustic or soda ash, and an appropriate alcohol (i.e., methanol, ethanol, or isopropanol). Follow this by washing with a strong soap and water solution. Absorb, as above, any excess liquid and add to the drums of waste already collected. Repeat if necessary. Dispose of drummed waste according to the method outlined in Section 13 "Disposal Considerations".

7. HANDLING AND STORAGE

Keep out of reach of children and animals. Wash thoroughly after handling this product. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal. 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. Store at temperatures above 40°F (5°C). If crystals form, warm to room temperature 70°F (21°C) by room heating only for 24-48 hours and shake occasionally until crystals dissolve and product appears uniform. Do not use external source of heat for warming container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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 Protection: For splash, mist or spray exposure wear, as a minimum, a properly fitted half-face or full-face air-purifying respirator which is approved for pesticides (approved by NIOSH/MSHA or comparable certification organization). Respirator use and selection must be based on airborne concentrations.

Protective Clothing: Depending on 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 should be removed prior to using this product. If items become contaminated with product – remove and destroy. Launder all work clothing before reuse (separately from household laundry).

Gloves: Wear chemical protective gloves made of materials such as butyl rubber, nitrile rubber or Viton®. Inspect gloves regularly for leaks. Thoroughly wash the outside of gloves with soap and water prior to removing.

Work Hygiene 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 when handling this product.

Additional information on personal protective clothing for mixers and applicators of this product may be found on the product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Amber liquid

Odor: Faint mild petroleum odor

pH: 4.8-5.0 at 20°C (6% in water)

Specific Gravity: 1.039 at 20°C

Solubility in Water: Emulsifies

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Excessive heat and fire.

CHEMICAL STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

Oral LD₅₀ (rat): 1,030 mg/kg

ACUTE DERMAL TOXICITY

Dermal LD₅₀ (rabbit): > 2000 mg/kg

ACUTE INHALATION TOXICITY

Inhalation LC₅₀ (rat): >25.7 mg/L (4 hrs.)

ACUTE EFFECTS FROM OVEREXPOSURE: This product has low oral, dermal and inhalation toxicity. It is moderately irritating to the skin and eyes. Experience to date indicates that contact with permethrin may produce skin sensations such as numbing, burning or tingling. These sensations are reversible and usually subside within 12 hours. Large, toxic doses of permethrin administered to laboratory animals have produced symptoms such as diarrhea, salivation, tremors, and intermittent convulsions. Overexposure to animals via inhalation has also produced hyperactivity and hypersensitivity. Exposure to aromatic hydrocarbons can irritate the skin. Vomiting after ingestion of this product may cause aspiration of aromatic hydrocarbons into the lungs that may result in fatal pulmonary edema.

CHRONIC EFFECTS FROM OVEREXPOSURE: No data are available for this formulation. In studies with laboratory animals, permethrin did not cause reproductive toxicity or teratogenicity. Analysis of chronic feeding studies in both mice and rats with permethrin resulted in the conclusion that permethrin's potential for induction of oncogenicity in experimental animals is low and that the likelihood of oncogenic effects in humans is extremely low. Long term feeding studies in animals resulted in increased liver and kidney weights, induction of the liver microsomal drug metabolizing enzyme system, and histopathological changes in the lungs and liver. Permethrin has been shown to be non-mutagenic. Prolonged and/or repeated skin contact to aromatic hydrocarbons may cause dermatitis. High concentration of aromatic hydrocarbon vapors may be irritating to eyes and respiratory system and act as an anesthetic.

CARCINOGENICITY:

IARC: Group 3 (not classifiable as to its carcinogenicity to humans)

NTP: Not listed

OSHA: Not listed

OTHER: (ACGIH) Not listed

12. ECOLOGICAL INFORMATION

Unless indicated, the information presented below is for the active ingredient, permethrin.

ENVIRONMENTAL DATA: In soil, permethrin is stable over a wide range of pH values. When applied at agricultural use rates, permethrin has a moderate rate of degradation in the soil. At termiticide use rates, permethrin degrades at a slower rate that is governed by soil characteristics such as soil type, microbial population, concentration in soil and aerobic conditions of soil. Due to its high affinity for organic matter ($K_{oc} = 86,000$), there is little potential for movement in soil or entry into ground water. Permethrin has a Log P_{ow} of 6.1, but has demonstrated a low potential for bioconcentration ($BCF = 500$) due to the ease with which it is metabolized.

ECOTOXICOLOGICAL INFORMATION: Permethrin is considered highly toxic to fish and aquatic arthropods. Marine species are often more sensitive than the freshwater species. Bacteria, algae, mollusks and amphibians are much more tolerant of permethrin than fish and arthropods. Care should be taken to avoid contamination of the aquatic environment. Permethrin is slightly toxic to birds with oral LD₅₀ values greater than 3600 mg/kg. Longer-term dietary studies have shown concentrations of up to 500 ppm in the diet had no effect on bird reproduction.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

14. TRANSPORT INFORMATION

When transported by aircraft or vessel (bulk or non-bulk packaging):

U.S. DOT PROPER SHIPPING NAME: Flammable liquid, n.o.s. (contains hydrocarbon solvent)

HAZARD CLASS OR DIVISION: 3

UN/NA NUMBER: UN1993

PACKING GROUP: I

REPORTABLE QUANTITY: None

DOT MARINE POLLUTANT: Not listed

U.S. SURFACE FREIGHT CLASS: Insecticides, NOI, other than poison (NMFC Item 102120)

When transported via highway or railroad in bulk packaging greater than 119 gallons:

U.S. DOT PROPER SHIPPING NAME: Combustible liquid, n.o.s. (contains hydrocarbon solvent)

HAZARD CLASS OR DIVISION: 3

UN/NA NUMBER: NA1993

PACKING GROUP: III

REPORTABLE QUANTITY: None

DOT MARINE POLLUTANT: Not listed

U.S. SURFACE FREIGHT CLASS: Insecticides, NOI, other than poison (NMFC Item 102120)

When transported via highway or railroad in non-bulk packaging:

Not regulated by DOT.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

FIFRA –

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act. The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

SARA Title III – Section 302 Extremely Hazardous Substances

Not listed

SARA Title III – Section 311 Hazardous Categories

Immediate, Delayed, Fire

SARA Title III – Section 312 Threshold Planning Quantity

The threshold planning quantity (TPQ) for this product treated as a mixture is 10,000 lbs. This product contains no ingredients with a TPQ of less than 10,000 lbs.

SARA Title III – Section 313 Reportable Ingredients

Permethrin, 1,2,4-trimethylbenzene, ethylbenzene

CERCLA

Chemical Name	Wt.%	RQ
ethylbenzene	<0.03	1000 lbs.

CALIFORNIA PROP 65 STATUS –

Not listed

16. OTHER INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by CPR.

DISCLAIMER:

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