



Prentox®

Perm-X™ UL

4-4

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Prentox® Perm-X™ UL 4-4
DESCRIPTION: Insecticide mixture
EPA Reg. Number: 655-898
EPA Signal Word: CAUTION

COMPANY IDENTIFICATION:

Envincio LLC
501 Cascade Pointe Lane, Suite 103
Cary, NC 27513
www.envincio.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>ACTIVE INGREDIENTS</u>	<u>CAS NO.</u>	<u>% COMPOSITION</u>
Permethrin	52645-53-1	4.0
Piperonyl Butoxide Technical	51-03-6	4.0

<u>Material</u>	<u>OSHA</u>	<u>ACGIH</u>	<u>NTP/IARC/OSHA</u>	
	<u>PEL</u>	<u>TLV</u>	<u>Other</u>	<u>Carcinogen</u>
Permethrin	N/A	N/A	Not Est.	No
Piperonyl Butoxide Technical	Not Est.	Not Est.	Not Est.	No
White Mineral Oil (CAS# 8042-47-50) (<92%)	5 mg/M ³ TWA	5 mg/M ³ TWA 10 mg/M ³ STEL	N/A	No

3. HAZARD IDENTIFICATION

PRIMARY ROUTES OF ENTRY: Eye and skin contact, inhalation. Prolonged or frequent repeated skin contact with permethrin may cause allergic reaction in some individuals. Repeated and prolonged skin contact with piperonyl butoxide may cause skin irritation. This product may cause temporary eye irritation.

SYMPTOMS OF ACUTE EXPOSURE: Large, toxic doses of permethrin, administered to laboratory animals, have produced central nervous system effects with symptoms that include diarrhea, salivation, bloody nose, tremors and intermittent convulsions. Overexposure to permethrin via inhalation also produced hyperactivity and hypersensitivity.

4. FIRST AID

INGESTION: Immediately call a physician or Poison Control Center or doctor. Do not induce vomiting unless told by a poison control center or a doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

EYE CONTACT: Immediately flush eyes with large amounts of water and continue flushing until irritation subsides. If irritation persists, seek medical attention (based on solvent).

SKIN CONTACT: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a Poison Control Center for treatment advice.

INHALATION: The solvent in this product has a low vapor pressure and is not expected to present an inhalation exposure hazard during mixing and loading. Follow directions for use on product packaging when applying this product.

NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration hazard.

5. FIRE-FIGHTING MEASURES

FIRE AND EXPLOSION

FLASH POINT (Test Method): 260° F (TCC)

FLAMMABLE LIMITS (% in air): Lower: N/A Upper: N/A

UNUSUAL FIRE, EXPLOSION AND REACTIVITY HAZARDS:

The solvent in this product may generate dense smoke when burning. Carbon monoxide, carbon dioxide and other oxides may be generated as products of combustion.

IN CASE OF FIRE: Use water fog, dry chemical, foam or CO₂ extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Use as little water as possible to prevent spread of contaminated runoff.

NFPA HAZARD RATINGS:

Health	1
Flammability	0
Reactivity	0



Prentox®

Perm-X™ UL

4-4

MATERIAL SAFETY DATA SHEET

6. ACCIDENTAL RELEASE MEASURES

Wear chemical safety glasses with side shields or chemical goggles, rubber gloves, rubber boots, long-sleeved shirt, long pants, to prevent contact with spilled material. For small spills, cover the spill with an absorbent material such as pet litter. Sweep up and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate water supplies.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area, out of the reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco usage, and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

INGESTION: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

EYE CONTACT: To avoid eye contact, wear safety glasses with side shields or chemical goggles.

SKIN CONTACT: To avoid skin contact, wear rubber gloves, rubber boots, long-sleeved shirt, and long pants.

INHALATION: Avoid breathing vapors or mist.

9. PHYSICAL DATA

APPEARANCE: Clear amber liquid

ODOR: Slight solvent and licorice

MELTING POINT: N/A

BOILING POINT: N/D

SPECIFIC GRAVITY/BULK DENSITY: 0.9807

pH: N/A

SOLUBILITY IN WATER: Oil solution, will not mix in water

VAPOR PRESSURE: Solvent - <1 mm Hg @ 70° F

% VOLATILE BY VOLUME: Solvent - 39%

10. STABILITY AND REACTIVITY

REACTIVITY:

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions to avoid: Flame, heat, ignition sources and strong oxidizers or reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and/or carbon dioxide. Chlorine and hydrogen chloride may be formed.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

ACUTE ORAL TOXICITY:

Oral LD₅₀ (rat): >500 to <5,000 mg/kg (female)
>5,000 mg/kg (male)

ACUTE DERMAL TOXICITY:

Dermal LD₅₀ (rat): >2,000 mg/kg

ACUTE INHALATION TOXICITY:

4-hour LC₅₀ (rat): >2.02 mg/L

EYE CONTACT: Minimally irritating

SKIN CONTACT: Non-irritating

SKIN SENSITIZATION:

Permethrin is a skin sensitizer in some individuals.

MUTAGENIC POTENTIAL: Permethrin and Piperonyl Butoxide did not produce any mutagenic effects when tested in the Ames test.

REPRODUCTIVE HAZARD POTENTIAL: Permethrin and Piperonyl Butoxide were not teratogenic when tested in rats.

CHRONIC/SUBCHRONIC TOXICITY STUDIES

CARCINOGENIC POTENTIAL: Permethrin: A statistically significant increase of lung and liver tumors was observed in female mice receiving diets containing 375 and 750 mg/kg/day over 85 weeks. Piperonyl Butoxide: Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures. The significance of this observation is questionable and under review. The doses at which tumors were observed greatly exceeded human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that piperonyl butoxide would result in carcinogenic effects.



Prentox®

Perm-X™ UL

4-4

MATERIAL SAFETY DATA SHEET

TOXICITY OF OTHER COMPONENTS: The solvent in this product is classified by IARC as a Group 3 substance ("Not classifiable as to its carcinogenicity to humans" based on inadequate animal evidence). IARC has also concluded that there is no evidence for the carcinogenicity of white oils when administered by routes other than by interperitoneal injection. The solvent is not carcinogenic according to the OSHA Hazard Communication Standard.

12. ECOLOGICAL INFORMATION

SUMMARY OF EFFECTS: Permethrin and piperonyl butoxide are highly toxic to fish and other aquatic organisms. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark other than as instructed on the product label. Do not contaminate water by disposing of equipment washwater. Apply this product only as specified on the label.

13. DISPOSAL CONSIDERATIONS

DISPOSAL: Do not reuse product containers. Dispose of product containers, waste containers, and residues according to Federal, State and local health and environmental regulations.

CHARACTERISTIC WASTE: Ignitable

LISTED WASTE: N/A

14. TRANSPORT INFORMATION

DOT CLASSIFICATION: Not regulated in available packaging

B/L FREIGHT CLASSIFICATION: Insecticides: other than poison, NMFC item 102120

INTERNATIONAL TRANSPORTATION: VIA Ocean: Environmentally Hazardous Substance, Liquid, N.O.S. (Permethrin), 9, UN3082, PG III Marine Pollutant

15. REGULATORY INFORMATION

SARA TITLE III – SECTION 311/312:

ACUTE HEALTH HAZARD: Yes

CHRONIC HEALTH HAZARD: Yes

FIRE HAZARD: No

SUDDEN RELEASE OF PRESSURE HAZARD: No

REACTIVITY HAZARD: No

SARA TITLE III – SECTION 313 CHEMICALS:

Permethrin (4%) (CAS # 52645-53-1)

Piperonyl Butoxide (4%) (CAS # 51-03-6)

This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III and of 40 CFR 372. Any copies or redistribution of this MSDS must include this notice.

PROPOSITION 65: Not applicable

RCRA CLASSIFICATION: Ignitable

TSCA STATUS: Exempt from TSCA

16. OTHER INFORMATION

DATE PREPARED: June 13, 2003

SUPERSEDES: November 18, 2002

REASON: Revision of Section 14

DISCLAIMER:

Envincio LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Envincio LLC, and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, ENVINCIO LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.



Prentox®

Perm-X™ UL

4-4

MATERIAL SAFETY DATA SHEET

To the extent consistent with applicable law Envincio LLC or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. To the extent consistent with applicable law, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ENVINCIO LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ENVINCIO LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Envincio LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Envincio LLC.

Prentox® and Perm-X™ are trademarks of Prentiss, LLC.