

**Material Safety Data Sheet**  
**U.S. Department of Labor (OSHA 29 CFR 1910.1200)**

**Manufacturer's Name:**    **Prentiss Incorporated**  
   **C. B. 2000**  
   **Floral Park, NY 11001**  
**Telephone Number:**      **(516) 326-1919**

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**Section 1: Chemical Identification**

**Product:**      **655-898**      **Prentox® Perm-X™ UL 4-4**  
**EPA Signal Word:**      **CAUTION**

**Active Ingredients (%):**      Permethrin (4%)      (CAS # 52645-53-1)  
   Piperonyl Butoxide Technical (4%)      (CAS #51-03-6)  
**Chemical Class:**      Insecticide mixture

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**Section 2: Composition/Information on Ingredients**

<b>Material:</b>	<b>OSHA</b>	<b>ACGIH</b>	<b>NTP/IARC/OSHA</b>	
	<b>PEL</b>	<b>TLV</b>	<b>Other</b>	<b>Carcinogen</b>
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 <sup>3</sup> TWA	5 mg/M <sup>3</sup> TWA 10 mg/M <sup>3</sup> STEL	N/A	No

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**Section 3: Hazards 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.

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**Section 4: First Aid Measures**

**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.

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## **Section 5: Fire Fighting Measures**

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### **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 CO<sub>2</sub> 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.

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## **Section 6: Accidental Release Measures**

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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.

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## **Section 7: Handling and Storage**

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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.

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## **Section 8: Exposure Controls/Personal Protection**

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**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.

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### Section 9: Physical and Chemical Properties

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Appearance:	Clear amber liquid
Odor:	Slight solvent and licorice.
Melting Point:	N/A
Boiling Point:	N/D
Specific Gravity/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%

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### Section 10: Stability and Reactivity

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#### 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.

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### Section 11: Toxicological Information

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#### Acute Toxicity/Irritation Studies

<b>Ingestion:</b>	Oral LD <sub>50</sub> (Rat):	>500 to <5,000 mg./Kg. (female) >5,000 mg./Kg. (male)
<b>Dermal:</b>	Dermal LD <sub>50</sub> (Rat):	>2,000 mg/Kg.
<b>Inhalation:</b>	4-hour LC <sub>50</sub> (Rat):	>2.02 mg./L.
<b>Eye Contact:</b>		Minimally irritating
<b>Skin Contact:</b>		Non-irritating.
<b>Skin Sensitization:</b>		Permethrin is a skin sensitizer in some individuals.
<b>Mutagenic Potential:</b>		Permethrin and Piperonyl Butoxide did not produce any mutagenic effects when tested in the Ames test.
<b>Reproductive Hazard Potential:</b>		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.

**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.

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### **Section 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.

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### **Section 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

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### **Section 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

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### **Section 15: Regulatory Information**

**SARA Title III Classification:**

Section 311/312:	Acute Health Hazard – Yes
	Chronic Health Hazard – Yes
	Fire Hazard – No
	Sudden release of pressure hazard – No
	Reactivity hazard – No

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

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**Section 16: Other Information**

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**NFPA Hazard Ratings:**

Health	1	0	Least
Flammability	0	1	Slight
Reactivity	0	2	Moderate
		3	High
		4	Severe

**Date Prepared:**      June 13, 2003  
**Supersedes:**        November 18, 2002  
**Reason:**              Revision of Section 14

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**The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.**