



Prentox®

# PBO-8®

## MATERIAL SAFETY DATA SHEET

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Prentox® PBO-8®  
**EPA Reg. Number:** 655-736  
**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>
Piperonyl Butoxide Technical	51-03-6	91.3

Chemical Class: Insecticide Synergist

<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>
Piperonyl Butoxide Technical	Not Est.	Not Est.	Not Est.	No
Emulsifier	Not Est.	Not Est.	Not Est.	No

### 3. HAZARD IDENTIFICATION

#### SYMPTOMS OF ACUTE EXPOSURE

**INGESTION:** May cause gastrointestinal effects, such as nausea, cramps, vomiting and diarrhea.

**EYES:** May cause temporary eye irritation.

**SKIN:** May cause skin irritation after repeated contact.

**INHALATION:** May cause nasal and respiratory irritation.

#### MEDICAL CONDITIONS GENERALLY AGGRAVATED

**BY EXPOSURE:** None known.

### 4. FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-257-4118 for emergency medical treatment information.

**INGESTION:** Drink 1 or 2 glasses of water. Contact a poison control center or physician immediately.

**INHALATION:** Remove affected person to fresh air.

**EYE CONTACT:** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention if irritation persists.

**SKIN CONTACT:** Remove contaminated clothing and wash affected areas with plenty of soap and water. Contact a physician if irritation persists.

### 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** >200° F. (closed cup)

**FLAMMABLE LIMITS (LEL-UEL):** Not applicable

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Keep exposed containers cool.

**MEANS OF EXTINCTION:** Foam, dry chemical or CO<sub>2</sub>.

**FIRE FIGHTING INSTRUCTIONS:** Do not inhale smoke or vapors. Use self-contained breathing apparatus and wear full protective clothing. Evacuate non-essential 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. This product is toxic to fish, birds and other wildlife, prevent spread of contaminated runoff.

**FIREFIGHTING EQUIPMENT:** Self-contained breathing apparatus and full bunker gear.

**NFPA RATINGS:** Health – 1 / Flammability – 1 / Reactivity – 0

### 6. ACCIDENTAL RELEASE MEASURES

Wear chemical safety glasses with side shields or chemical goggles, chemical resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber or viton®, shoes and socks, long-sleeved shirt and long pants to prevent contact with the product or its vapors. Cover the spilled area with generous amounts of absorbent material, such as clay, diatomaceous earth, sand or sawdust. Sweep the contaminated absorbent onto a shovel and put the sweepings into a salvage drum. Wash the spill area with water containing a strong detergent, absorb the rinsate, sweep up and put into salvage drum. Dispose of wastes as below.

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**WASTE DISPOSAL METHOD:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. This product is toxic to fish, birds and other wildlife. Do not contaminate the environment through improper disposal.

### 7. HANDLING AND STORAGE

Do not use or store near heat or open flame. Exposure to temperatures above 130° F. may cause bursting of containers. Store in a well ventilated; secure area, out of reach of children, domestic animals. Do not contaminate water, food or feed by storage or disposal. Periodically inspect stored materials. 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:** Avoid eye contact. Wear safety glasses with side shields or chemical goggles.

**SKIN CONTACT:** To avoid skin contact, wear chemical resistant gloves, such as barrier laminate, nitrile rubber, neoprene rubber or Viton®, shoes and socks, long-sleeved shirt and long pants.

**INHALATION:** To avoid breathing vapors or mist, wear a NIOSH approved chemical cartridge respirator with organic vapor cartridges and a pesticide pre-filter, or a supplied air respirator.

### 9. PHYSICAL DATA

**APPEARANCE:** Water white to amber liquid.

**ODOR:** Pleasant licorice-like odor.

**MELTING POINT:** Not applicable.

**BOILING POINT:** N/D

**pH:** 6.0

**SPECIFIC GRAVITY/BULK DENSITY:** 1.0494 g/mL

**SOLUBILITY IN WATER:** Emulsifies.

**VAPOR PRESSURE:** N/D

### 10. STABILITY AND REACTIVITY

**CONDITIONS TO AVOID:** Strong oxidizers

**CHEMICAL STABILITY:** Stable.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Oxides of carbon.

**POLYMERIZATION:** Will not occur.

### 11. TOXICOLOGICAL INFORMATION

**ACUTE ORAL TOXICITY:** Minimally toxic

Oral LD<sub>50</sub> (rat): > 4,840 mg/kg

**ACUTE DERMAL TOXICITY:** Slightly toxic

Dermal LD<sub>50</sub> (rabbit): > 2,104 mg/kg

**ACUTE INHALATION TOXICITY:** Slightly toxic

Inhalation LC<sub>50</sub> (rat): > 43.3 mg/L

**EYE IRRITANT:**

Rabbit – Causes minimal eye irritation

**PIPERONYL BUTOXIDE TECHNICAL:**

**SKIN SENSITIZATION:**

Guinea Pig – Not a contact sensitizer

**MUTAGENIC POTENTIAL:** None observed.

**REPRODUCTIVE HAZARD POTENTIAL:** None observed.

**CHRONIC/SUBCHRONIC TOXICITY:** None observed.

**CARCINOGENIC POTENTIAL:** Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to Piperonyl Butoxide. The significance of this observation is questionable and under review. The doses at which tumors were observed greatly exceeded potential human exposure from labeled uses. Doses at which these effects were observed greatly exceeded human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that this product would result in carcinogenic effects.

**OTHER TOXICITY INFORMATION:**

**MUTAGENICITY:** Piperonyl Butoxide was not genotoxic in several tests, including the Ames mutagenicity assay, chromosome aberration in Chinese hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

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**TERATOLOGY/REPRODUCTIVE EFFECTS:** There were no birth defects or adverse effects on reproductive parameters in rats or rabbits. Piperonyl Butoxide is not considered to be teratogenic.

**TOXICITY OF OTHER COMPONENTS:** Not applicable.

**TARGET ORGANS:** Central nervous system.

### 12. ECOLOGICAL INFORMATION

**SUMMARY OF EFFECTS:** Piperonyl Butoxide is highly toxic to fish and aquatic organisms.

**ECO-ACUTE TOXICITY:**

Rainbow Trout 96-hour (LC<sub>50</sub>): 6.12 ppm

Bluegill Sunfish 96-hour (LC<sub>50</sub>): 5.37 ppm

Daphnia Magna 48-hour (LC<sub>50</sub>): 0.51 ppm

Honeybee Acute: > 25 µg/bee

Bobwhite Quail Oral (LD<sub>50</sub>): > 2,250 mg/kg

Bobwhite 5 day dietary (LD<sub>50</sub>): > 5,620 ppm

Mallard Duck (LD<sub>50</sub>): > 5,620 ppm

**ECO-ACUTE TOXICITY:**

Fish (Fathead Minnow)

Early life stage MATC: > 0.18 mg/L - <0.42 mg/L

Invertebrate

(Daphnia Magna) life cycle MATC: > 30 µg/L - <47 µg/L

**ENVIRONMENTAL FATE:** Not available.

### 13. DISPOSAL CONSIDERATIONS

**Do not contaminate water, food or feed by disposal.**

**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:** Not applicable.

**LISTED WASTE:** None.

### 14. TRANSPORT INFORMATION

**DOT CLASSIFICATION:** Not regulated by DOT.

**B/L FREIGHT CLASSIFICATION:** INSECTICIDES; OTHER THAN POISON, NMFC ITEM 10120

**INTERNATIONAL TRANSPORTATION:** Not available.

### 15. REGULATORY INFORMATION

**SARA TITLE III – SECTION 311/312 HAZARD CATEGORIES:** Not applicable.

**SARA TITLE III – SECTION 313 REPORTABLE INGREDIENTS:** Piperonyl Butoxide (CAS# 51-03-6) 91.3%

**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.

**CERCLA REPORTABLE QUANTITY (RQ):** Not applicable.

**RCRA CLASSIFICATION:** Not applicable.

**TSCA STATUS:** Exempt from TSCA.

### 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:**

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.



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To the extent consistent with applicable law,

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