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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

ACTIVE INGREDIENTS	CAS NO.	% COMPOSITION
Piperonyl Butoxide Technical	51-03-6	91.3

Chemical Class: Insecticide Synergist

MATERIAL	OSHA PEL	ACGIH TLV	NTP/IARC/OSHA Other	NTP/IARC/OSHA Carcinogen
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_2.

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.

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_{50} (rat): > 4,840 mg/kg
ACUTE DERMAL TOXICITY: Slightly toxic
Dermal LD_{50} (rabbit): > 2,104 mg/kg
ACUTE INHALATION TOXICITY: Slightly toxic
Inhalation LC_{50} (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.

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_{50}): 6.12 ppm

Bluegill Sunfish 96-hour (LC_{50}): 5.37 ppm

Daphnia Magna 48-hour (LC_{50}): 0.51 ppm

Honeybee Acute: > 25 µg/bee

Bobwhite Quail Oral (LD_{50}): > 2,250 mg/kg

Bobwhite 5 day dietary (LD_{50}): > 5,620 ppm

Mallard Duck (LD_{50}): > 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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