1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Prentox® ExciteR™
EPA Reg. Number: 655-798
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
Pyrethrins | 8003-34-7 | 6.0
Piperonyl Butoxide Technical | 51-03-6 | 60.0

OTHER INGREDIENTS
Emulsifier | CAS NO. - Supplier confidential
Petroleum solvent | 64742-47-8 (TWA) 300 ppm* | Supplier recommendation

*Supplier recommendation

OSHA | ACGIH | NTP/IARC/OSHA | Other | Carcinogen
Pyrethrins | Not Est. | (TWA) | Not Est. | No

Piperonyl Butoxide Technical
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. Ingestion of large quantities can result in nervous system effects, such as dizziness, loss of coordination, tremors, and loss of consciousness. Symptoms usually regress with no long lasting effects. At high oral doses, the type of solvent in this product has caused irreversible damage to the liver and kidney (male only) in rats. These effects are not relevant to humans at occupational levels of exposure.

EYES: May cause temporary eye irritation.

SKIN: May be irritating to skin. Repeated contact may cause dermatitis.

4. FIRST AID

INGESTION: Do not induce vomiting. This product contains a petroleum solvent. Vomiting may cause aspiration pneumonia. Call a physician or Poison Control Center immediately.

INHALATION: Remove victim to fresh air. Administer artificial respiration if necessary.

EYE CONTACT: Flush eyes with plenty of water for 15 minutes. Call a physician if irritation persists.

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

5. FIRE-FIGHTING MEASURES

FLASH POINT: 154°F. (Closed cup)

FLAMMABLE LIMITS: LEL: 0.6 UFL: 7.0 (solvent)

UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustible liquid. Keep containers cool to avoid explosive ignition.

MEANS OF EXTINCTION: Foam, dry chemical, CO₂ or sand.

FIRE FIGHTING INSTRUCTIONS: 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. This product is toxic to fish, birds and other wildlife, prevent spread of contaminated runoff.

FIREFIGHTING EQUIPMENT: Self-contained breathing apparatus and full protective clothing.

NFPA RATINGS: Health – 1 / Flammability – 2 / 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:** To 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:** Yellow to amber liquid.

**ODOR:** Pleasant woody odor.

**MELTING POINT:** Not applicable.

**BOILING POINT:** Not determined.

**SPECIFIC GRAVITY/BULK DENSITY:** 0.9930 g/mL

**pH:** Not applicable.
ACUTE TOXICITY/IRRITATION STUDIES:
PIPERONYL BUTOXIDE (TECHNICAL GRADE)

INGESTION: Minimally toxic
Oral LD50 (rat) 4,570 mg/kg – males
7,220 mg/kg - females

DERMAL: Slightly toxic
Dermal LD50 (rabbit): >2,000 mg/kg

INHALATION: Slightly toxic
Inhalation LC50 >5.9 mg/L

EYE CONTACT: Rabbit – Causes slight eye irritation

SKIN CONTACT: Rabbit – Causes minimal skin irritation

SKIN SENSITIZATION: Guinea Pig – Not a contact sensitizer

MUTAGENIC 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:

MUTAGENIC DATA: 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:

EMULSIFIER: The supplier notes that the emulsifier may cause severe eye irritation from contact. Also, prolonged skin contact with soaked clothing may cause irritation. Inhalation may cause chest pain and coughing. Ingestion may cause nausea, vomiting and diarrhea. The supplier does not note any chronic toxicity.

PETROLEUM SOLVENT: The supplier reports that overexposure to this solvent may cause kidney damage. Exposure to the liquid may cause eye irritation and mild skin irritation. Breathing can cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and even death. Swallowing can cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration into the lungs can cause aspiration pneumonia, which can be fatal.

TARGET ORGANS

ACTIVE INGREDIENTS: Central nervous system.

INERT INGREDIENTS

EMULSIFIER: Eyes, skin, respiratory tract.

PETROLEUM SOLVENT: Respiratory tract, central nervous system and skin.

12. ECOLOGICAL INFORMATION

SUMMARY OF EFFECTS: Pyrethrins are highly toxic to fish and aquatic organisms.

ECO-ACUTE TOXICITY:

PYRETHRINS (58%)
Rainbow trout 96-hour LC50 5.2 μg/L
Bluegill sunfish 96-hour LC50 10 μg/L
Honeybee Acute 0.022 μg/bee
Daphnia magna 48-hour LC50 12 μg/L
Bobwhite Quail Oral LD50 >2,000 mg/kg
Bobwhite 5 day dietary LC50 >5,620 ppm
Mallard 5 day dietary LC50 >5,620 ppm

PIPERONYL BUTOXIDE (TECHNICAL GRADE)
Rainbow trout 96-hour LC50 6.12 ppm
Bluegill Sunfish 96-hour LC50 5.37 ppm
Daphnia Magna 48-hour LC50 0.51 ppm
Honeybee Acute >25 μg/bee
Bobwhite Quail Oral LD50 >2,250 mg/kg
Bobwhite 5 day dietary LC50 >5,620 ppm
Mallard 5 day dietary LC50 >5,620 ppm

ECO-CHRONIC TOXICITY:

PYRETHRINS (58%)
Fish (Fathead Minnow) Early life stage MATC >1.9 μg total pyrethrins/L
Invertebrate (Daphnia Magna) Life cycle MATC 1.3 μg total pyrethrins/L
**PIPERONYL BUTOXIDE (TECHNICAL GRADE)**

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:** Ignitable.

**LISTED WASTE:** None.

**14. TRANSPORT INFORMATION**

**DOT Classification:** COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA), NA1993, PGiii, RQ (PYRETHRINS)

**B/L Freight Classification:** INSECTICIDES; OTHER THAN POISON, NMFC ITEM 102120

**International Transportation:** Not available.

**15. REGULATORY INFORMATION**

**SARA TITLE III – SECTION 311/312 HAZARD CATEGORIES:**
- Acute health hazard
- Fire hazard

**SARA TITLE III – SECTION 313 REPORTABLE INGREDIENTS:** Piperonyl Butoxide Technical (60.0%)

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):** 16.67 lb.

**RCRA Classification:** Ignitable

**TSCA Status:** Exempt from TSCA.

**16. OTHER INFORMATION**

**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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