



Prentox[®]

Pyronyl[™] Crop Spray

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Prentox[®] Pyronyl[™] Crop Spray
DESCRIPTION: Insecticide mixture
EPA Reg. Number: 655-489
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

Material	OSHA	ACGIH	NTP/IARC/OSHA	
	PEL	TLV	Other	Carcinogen
Pyrethrins	Not Est.	5 mg/m ³ TWA	Not Est.	No
Piperonyl Butoxide Technical	Not Est.	Not Est.	Not Est.	No
Emulsifier (CAS# - Supplier confidential)	Not Est.	Not Est.	Not Est.	No
Petroleum solvent (CAS # 64742-47-8)				TWA 300 ppm*

*Supplier recommendation

3. HAZARD IDENTIFICATION

SYSTEMS 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.

INHALATION: May cause nasal and respiratory irritation at high concentrations.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None known

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

FIRE AND EXPLOSION

FLASH POINT (Method Used): 154° F (closed cup)

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

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

IN CASE OF FIRE: Use CO₂, foam, dry chemical, or sand extinguishing media. Do not inhale smoke or vapors. Use self-contained breathing apparatus and wear full protective clothing. 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.

NFPA HAZARD RATINGS:

Health	1
Flammability	2
Reactivity	0



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Pyronyl™

Oil Concentrate #525

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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: N/A

BOILING POINT: N/D

SPECIFIC GRAVITY (H₂O=1): 0.8888

pH: N/A

SOLUBILITY IN WATER: Virtually insoluble

VAPOR PRESSURE: N/D

10. STABILITY AND REACTIVITY

REACTIVITY:

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions to avoid: Flame, heat, ignition sources, strong acids and alkalies.

HAZARDOUS DECOMPOSITION PRODUCTS: None known

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

PYRETHRINS (58% MANUFACTURING GRADE):

ACUTE ORAL TOXICITY:

Slightly toxic

Oral LD₅₀ (rat): 2,370 mg/kg (58% pyrethrins)

ACUTE DERMAL TOXICITY:

Slightly toxic

Dermal LD₅₀ (rabbit): >2,000 mg/kg (58% pyrethrins)

ACUTE INHALATION TOXICITY:

Slightly toxic

Inhalation LC₅₀ 3.4 mg/L (58% pyrethrins)

EYE CONTACT: Minimally irritating (rabbit)

SKIN CONTACT: Minimally irritating (rabbit)

SKIN SENSITIZATION: Not a skin sensitizer (guinea pig)

MUTAGENIC POTENTIAL: Pyrethrins – none observed

REPRODUCTIVE HAZARD POTENTIAL:

Pyrethrins – none observed

CHRONIC/SUBCHRONIC TOXICITY

Pyrethrins – none observed

CARCINOGENICITY/ONCOGENICITY: Pyrethrum has been tested in chronic feeding studies in mice and rats. Slightly elevated incidences of benign tumors of the thyroid and liver were seen in rats following high doses of Pyrethrum. Further detailed scientific studies into the mechanism causing these responses indicate that these effects in animals only occur at doses greatly exceeding the likely human exposure levels. Thus, the effects seen in animals are of little relevance to humans.

OTHER TOXICITY INFORMATION: Not available



Manufactured for: **Envincio**
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CHEMICAL SPILL, LEAK, FIRE: CHEMTREC 800-424-9300
MEDICAL EMERGENCIES ONLY: 866-257-4118



Prentox

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OTHER TOXICITY INFORMATION: Not available

ACUTE TOXICITY/IRRITATION STUDIES

PIPERONYL BUTOXIDE (TECHNICAL GRADE):

ACUTE ORAL TOXICITY:

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

ACUTE DERMAL TOXICITY:

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

ACUTE INHALATION TOXICITY:

Slightly toxic
Inhalation LC₅₀ >5.9 mg/L

EYE CONTACT: Slightly irritating (rabbit)

SKIN CONTACT: Minimally irritating (rabbit)

SKIN SENSITIZATION: Not a skin sensitizer (guinea pig)

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:

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