

Product: 655-736 Prentox® PBO-8®

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

Manufacturer's Name: Prentiss Incorporated
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Section 1: Chemical Identification

Product: 655-736 Prentox® PBO-8®
EPA Signal Word: CAUTION
Active Ingredients (%): Piperonyl Butoxide Technical (91.3%) (CAS# 51-03-6)
Chemical Class: Insecticide Synergist.

Section 2: Composition/Information on Ingredients

Material:	OSHA PEL	ACGIH TLV	NTP/IARC/OSHA Other	Carcinogen
Piperonyl Butoxide Technical	Not Est.	Not Est.	Not Est.	No
Emulsifier (CAS# Supplier Confid.)	Not Est.	Not Est.	Not Est.	No

Section 3: Hazards 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.

Section 4: First Aid Measures

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.

Section 5: Fire Fighting Measures

Fire and Explosion

Flash Point (Method Used): >200° F. (closed cup)

Flammable Limits: **LEL:** N/D **UEL:** N/D

In case of fire: Use CO₂, foam or dry chemical. 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.

Unusual Fire and Explosion Hazards: Keep exposed containers cool.

Section 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.

Section 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.

Section 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.

Section 9: Physical and Chemical Properties

Appearance:	Water white to amber liquid.
Odor:	Pleasant licorice-like odor.
Melting Point:	Not applicable.
Boiling Point:	N/D
Specific Gravity (H₂O = 1):	1.0494
pH:	6.0
Solubility in Water:	Emulsifies.
Vapor Pressure:	N/D

Section 10: Stability and Reactivity

Reactivity:	
Stability	Stable.
Hazardous Polymerization:	Will not occur.
Conditions to avoid:	Strong oxidizers.
Hazardous Decomposition Products:	Oxides of carbon.

Section 11: Toxicological Information

Acute toxicity/irritation studies:

Ingestion:	Minimally toxic	
	Oral LD50 (Rat)	4,840 mg/kg
Dermal:	Slightly toxic	
	Dermal LD50 (Rabbit)	>2,104 mg/kg
Inhalation:	Slightly toxic	
	Inhalation LC50	>43.3 mg/L
Eye Contact:	Minimally irritating (Rabbit)	
Skin Contact:	Minimally irritating (Rabbit)	
Piperonyl Butoxide Technical:		
Skin Sensitization:	Not a sensitizer (Guinea Pig)	
Mutagenic Potential:	None observed.	

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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.

Section 12: Ecological information

Summary of Effects: Piperonyl Butoxide is highly toxic to fish and aquatic organisms.

Eco-Acute Toxicity:	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:	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.

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: Not applicable.

Listed Waste: None.

Section 14: Transport Information

DOT Classification: Not DOT regulated.

B/L Freight Classification: INSECTICIDES; OTHER THAN POISON, NMFC ITEM 10120

International Transportation: Not available.

Section 15: Regulatory Information

SARA Title III Classification:

Section 311/312: Not applicable.

Section 313 Chemicals: 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.

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TSCA Status: Exempt from TSCA.

Section 16: Other Information

NFPA Hazard Ratings:

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

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Reason: Complete revision.

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