

MATERIAL SAFETY DATA SHEET

Pre-Strike Bed Bug Killer

Manufacturer: Wellmark International
Address: 1501 East Woodfield Road, Suite 200 West Schaumburg, IL 60173
Emergency Phone: 888-914-2082
Transportation Emergency Phone: CHEMTREC: 1-800-424-9300

1. CHEMICAL PRODUCT INFORMATION

Product Name: Pre-Strike Bed Bug Killer
Chemical Name/Synonym: Pyrethrins; a mixture of pyrethrin I, II, Jasmolin I, II, cinerin I, II, Piperonyl butoxide; 5-[2-(2-butoxyethoxy)ethoxymethyl]-6-propyl-1,3-benzodioxole
Permethrin; (3-Phenoxybenzyl (1RS)-cis,trans-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate
Chemical Family: Pyrethroid, Benzodioxole
Formula: C₂₁H₂₈O₃, C₂₂H₂₈O₅, C₂₁H₃₀O₃, C₂₂H₃₀O₅, C₂₀H₂₈O₃, and C₂₁H₂₈O₅ respectively, C₁₉H₃₀O₅, C₂₁ H₂₀ CL₂ O₃
EPA Registration No.: 2724-633
RF Number: RF2166

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component (chemical, common name)</u>	<u>CAS Number</u>	<u>Weight</u>	<u>Tolerance</u>
Pyrethrins	8003-34-7	0.2%	5 mg/m ³ (OSHA & ACGIH)
Permethrin: 3-Phenoxybenzyl (1RS)-cis,trans-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate	52645-53-1	0.4%	Not Established
Piperonyl Butoxide: 5-[2-(2-butoxyethoxy)ethoxymethyl]-6-propyl-1,3-benzodioxole	51-03-6	1%	Not Established
Inert ingredients(trade secret and/or non-hazardous)		98.4%	Not Established

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENTS
KEEP OUT OF THE REACH OF CHILDREN
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION
HARMFUL IF SWALLOWED. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO, OR USING THE TOILET.

PRIMARY ROUTE OF ENTRY **Dermal/Eye:** Yes **Oral:** No **Inhalation:** Yes

ACUTE TOXICITY **Oral:** Harmful of swallowed
 Dermal: No specific hazard identified
 Inhalation: No specific hazard identified

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Irritating
Eye Irritation: Irritating
Sensitizer: Not a dermal sensitizer

4. FIRST AID MEASURES

- If swallowed:**
- Immediately call a poison control center or doctor.
 - Do not induce vomiting unless told to by a poison control center or doctor.
 - Do not give **any** liquid to the person.
 - Do not give anything to an unconscious person.

Note to Physician: Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

5. FIRE FIGHTING MEASURES

NFPA Rating: **Health: 1** **Fire: 2** **Reactivity: 0**
Flammability Class: Level 1 Aerosol

Flash Point: Not Established

Explosive Limits (% of Volume): Not determined

Extinguishing Media: Water spray, foam, dry chemical, CO2

Special Protective Equipment: Firefighters should wear full protective clothing including self-contained breathing apparatus.

Fire Fighting Procedures: Use water to keep fire exposed containers cool. Do not allow run-off to enter waterways or sewers. Contents under pressure.

Combustion Products: Products of combustion are principally carbon dioxide, carbon monoxide, and water.

Unusual Fire/Explosion Hazards: Contents under pressure.

6. ACCIDENTAL RELEASE MEASURES

Steps to be taken: Absorb spills with an inert material. Place in container for disposal. Do not allow spill to enter waterways or sewers.

Absorbents: Clay granules, sawdust, dirt, or equivalent.

Incompatibles: None known

7. HANDLING AND STORAGE

Handling: Wash hands with soap and water after handling material. Avoid contact with skin, eyes, or clothing.

Storage: Store in a cool, dry area. Do not use or store below 32°F. Contents under pressure. Do not Puncture or Incinerate. Do not store above 130°F. Do not store near open flames. Store in a cool, dry place away from children. Do not contaminate water, food, or feed, by storage.

8. EXPOSURE CONTROL/PERSONAL MEASURES

Exposure Limits: Pyrethrins: 5 mg/m³ (OSHA & ACGIH). Emulsifier: 300 ppm (ACGIH).
Propellant: 1000 ppm (ACGIH).

Ventilation: Use only with adequate ventilation.

Personal Protective Equipment: None required; however, professional applicators (those with repeated and extended exposure) should wear appropriate protective equipment to prevent contact with skin, eyes or clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: White milky emulsion

Boiling Point: N/A

Melting Point: N/A

Vapor Pressure (mm Hg): N/A

Vapor Density (Air = 1): N/A

Specific Gravity: 0.799 g/cm³ (Prefill, at 20 °C)

Bulk Density: N/A

Solubility: N/A

Evaporation Rate: N/A

pH: 6-8 (prefill)

10. STABILITY AND REACTIVITY

Stability: Stable

Reactivity: Nonreactive

Incompatibility w/ Other N/A

Materials:

Decomposition Products: None

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Permethrin

Acute oral toxicity: LD50 = 3580 mg/kg (male rats)
LD50 = 2280 mg/kg (female rats)
Acute dermal toxicity: LD50 = >2000 mg/kg (rabbits)
Acute inhalation toxicity: No data
Skin irritation: All irritation cleared by 48 hours
Eye irritation: All irritation cleared by 72 hours
Not a dermal sensitizer

Pyrethrins (pyrethrum)

Acute oral toxicity: LD50 = 2370 mg/kg (male rats)
LD50 = 1030 mg/kg (female rats)
LD50 273 – 796 mg/kg (mice)
Acute dermal toxicity: LD50 > 1500 mg/kg (rats)
LD50 = 5000 mg/kg (rabbits)
Acute inhalation toxicity: 4-Hour LC50 3.4 mg/L (rats)
Skin irritation: Slightly irritating
Eye irritation: Slightly irritating

Piperonyl butoxide

Acute oral toxicity: LD50 = 4300 mg/kg
Acute dermal toxicity: LD50>2000 mg/kg
Acute inhalation toxicity: 4-Hour LC50 >5.0 mg/L
Skin irritation: Essentially non-irritating
Eye irritation: Essentially non-irritating
Not a dermal sensitizer

CHRONIC TOXICITY [Specific to Active Ingredient(s)]

Permethrin: A statistically significant increase in the incidence of lung and liver tumors was observed in female mice receiving diets containing 375 and 750 mg/kg/day of technical material over 85 days.

Carcinogenicity: NTP: No IARC: No OSHA: No

Pyrethrins: Marginally higher incidences of benign thyroid, parathyroid, ovary, and liver tumors were observed in rats and in lungs of mice following lifetime high dose exposure to pyrethrum. The significance of these observations is questionable.

Carcinogenicity: NTP: No IARC: No OSHA: No

Piperonyl butoxide: An increase in the number of benign liver tumors in mice fed piperonyl butoxide technical at doses which far exceeded any anticipated daily human intake. Independent and industry toxicology experts have reviewed the data and agree that the findings of the study do not indicate a health risk to humans.

Carcinogenicity: NTP: No IARC: No OSHA: No

DEVELOPMENTAL/REPRODUCTIVE TOXICITY [Specific to Active Ingredient(s)]

Permethrin: Was not teratogenic in rats.

Pyrethrins: There were no birth defects or adverse effects on reproductive parameters in tests with rats or rabbits. It is not considered to be teratogenic.

Piperonyl butoxide: There were no birth defects or adverse effects on reproductive parameters in tests with rats or rabbits. It is not considered to be teratogenic.

MUTAGENICITY [Specific to Active Ingredient(s)]

Permethrin is not a mutagen in the Ames assay.

Pyrethrins: Pyrethrum was not found to be genotoxic and did not damage DNA in any study conducted (Ames mutagenicity assay, chromosome aberrations in Chinese hamster ovary (CHO) cells, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells).

Piperonyl butoxide is not genotoxic in several tests including the Ames mutagenicity assay, chromosome aberrations 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.

12. ECOLOGICAL INFORMATION

This product is toxic to aquatic organisms, including fish and invertebrates. Do not apply directly to or near water. Drift and runoff may be hazardous to fish in water adjacent to treated areas. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

ECOTOXICITY [Active Ingredients Only]

Permethrin

Acute Toxicity: fish: LC₅₀: 0.5 ppb to 315 ppb
Aquatic anthropods: LC₅₀ 1.02 ppb to 7.6 ppb

Pyrethrins

Acute Toxicity: Rainbow trout: LC₅₀ = 5.1 ppb
Sheepshead minnow: LC₅₀ = 16.0 ppb
Mysid shrimp: LC₅₀ = 1.4 ppb
Daphnia magna: EC₅₀ = 11.6 ppb

Piperonyl butoxide

Acute Toxicity: Rainbow trout: LC₅₀ = 6.12 ppm
Bluegill: LC₅₀ = 8.5 ppb 5.37 ppm
Sheepshead minnow: LC₅₀ = 3.94 ppm
Mysid shrimp: LC₅₀ = 0.32 ppm

13. DISPOSAL CONSIDERATIONS

Wastes resulting from use of this product should be disposed of in accordance with all federal, state and local requirements. For additional regulatory information, see section 15 of this document.

14. TRANSPORT INFORMATION

DOT49CFR Description: Consumer Commodity ORM-D (ORM-D-AIR for domestic Air; ID 8000 Consumer Commodity class 9 for Intl. Air)

Freight Classification: Insecticides NOI NMFC Freight CLASS 70

15. REGULATORY INFORMATION

CERCLA (Superfund): Pyrethrins: Reportable Quantity = 1 lb.

RCRA: Not Regulated.

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (Irritant)

Delayed Health: No

Fire: Yes

Sudden Pressure: Yes

Reactivity: No

The information presented herein, while not guaranteed, was prepared by technically knowledgeable personnel and to the best of our knowledge is true and accurate. It is not intended to be all inclusive and the manner and conditions of use and handling may involve other or additional considerations.