

MATERIAL SAFETY DATA SHEET

Starbar[®] Attack-All[®] Livestock & Premise Fly Spray

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

1. CHEMICAL PRODUCT INFORMATION

Product Name: Starbar[®] Attack-All[®] Livestock & Premise Fly Spray

Chemical Name/Synonym:
Pyrethrins; a mixture of Pyrethrin I, Pyrethrin II, Jasmolin I, Jasmolin II, Cinerin I, and Cinerin II,
Piperonyl Butoxide; 5-[2-(2-butoxyethoxy) ethoxymethyl]-6-propyl-1,3-benzodioxole
Permethrin; [(3-phenoxyphenyl)methyl(+/-)cis-trans-3-(2,2-dichloroethyl)-2,2-dimethyl cyclopropanecarboxylate]

Chemical Family: Pyrethroid

Formula:
C₂₁ H₂₈ O₃, C₂₂ H₂₈ O₅, C₂₁ H₃₀ O₃, C₂₂ H₃₀ O₅, C₂₀ H₂₈ O₃ and C₂₁ H₂₈ O₅ respectively, C₁₉ H₃₀ O₅ , , C₁₉ H₃₄ O₃

EPA Registration No.: 2724-810

RF Number: RF2159 RTU

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	0.05%	5 mg/m ³ (OSHA & ACGIH)
Piperonyl butoxide	51-03-6	0.5%	Not established
Permethrin: [(3-phenoxyphenyl)methyl(+/-)cis-trans-3-(2,2-dichloroethyl)-2,2-dimethyl cyclopropanecarboxylate]	52645-53-1	0.1%	Not established

3. HAZARD INFORMATION

PRECAUTIONARY STATEMENTS
KEEP OUT OF THE REACH OF CHILDREN
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION
NOT FOR USE ON HUMANS. HARMFUL IF ABSORBED THROUGH SKIN. AVOID CONTACT WITH SKIN, EYES, OR CLOTHING. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING AND BEFORE EATING, DRINKING, CHEWING GUM, USING TOBACCO, OR USING THE TOILET. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE.
HAZARDS TO DOMESTIC ANIMALS:
FOR EXTERNAL USE ONLY. DO NOT USE ON ANIMALS UNDER THREE MONTHS OF AGE OR ON SICK, OLD, DEBILITATED, OR MEDICATED ANIMALS.

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

ACUTE TOXICITY Oral: No specific hazard identified
 Dermal: Harmful if absorbed through skin
 Inhalation: No specific hazard identified

OTHER TOXICOLOGICAL INFORMATION

Skin Irritation: Slightly irritating
Eye Irritation: Not a eye irritant
Sensitizer: Not a skin sensitizer

4. FIRST AID MEASURES

- If on Skin:**
- Take off contaminated clothing.
 - Rinse skin immediately with plenty of water for 15-20 minutes.
 - Call a poison control center or doctor for treatment advice.

Note to Physician: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

5. FIRE FIGHTING MEASURES

NFPA Rating: **Health: 1** **Fire: 1** **Reactivity: 0**
Flammability Class: Class IIIB liquid
Flash Point: >200°F
Explosive Limits (% of Volume): Not available.
Extinguishing Media: Water fog, dry chemical, foam or CO₂.
Special Protective Equipment: Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire Fighting Procedures: Normal procedures. Do not allow fire fighting water to escape into waterways or sewers.
Combustion Products: Carbon dioxide and carbon monoxide.
Unusual Fire/Explosion Hazards: None known.

6. ACCIDENTAL RELEASE MEASURES

- Steps to be taken:** This product is extremely toxic to aquatic organisms, including fish and invertebrates. Do not allow spill to enter water ways or sewers. Soak up with absorbent material and place in a suitable container for disposal.
- Absorbents:** Clay granules, sawdust, dirt or equivalent.
- Incompatibles:** Strong oxidizing agents.

7. HANDLING AND STORAGE

- Handling:** Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Avoid breathing spray mist.
- Storage:** Store in a cool area away from heat or open flame. Store away from children and animals.

8. EXPOSURE CONTROL/PERSONAL MEASURES

- Exposure Limits:** Not available.
- Ventilation:** Use with adequate ventilation.
- Personal Protective Equipment:** Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. If contact with liquid is anticipated, impervious gloves are recommended. End users should refer to product labeling for PPE requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance and Odor:** Milky white liquid
- Boiling Point:** N/A
- Melting Point:** N/A
- Vapor Pressure (mm Hg):** N/A
- Vapor Density (Air = 1):** N/A
- Specific Gravity:** N/A
- Bulk Density:** N/A
- Solubility:** Miscible with water
- Evaporation Rate:** N/A
- pH:** 5-7

10. STABILITY AND REACTIVITY

- Stability:** Stable
- Reactivity:** Non reactive
- Incompatibility w/ Other Materials:** None
- Decomposition Products:** None
- Hazardous Polymerization:** Will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Acute oral toxicity:	LD50 >5,010 mg/kg (rat)
Acute dermal toxicity:	LD50 >2,010 mg/kg (rabbits)
Acute inhalation toxicity:	LC50 >3.55 mg/L (4 hr)
Skin irritation:	Slightly irritating
Eye irritation:	Not an eye irritant
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 extremely toxic to aquatic organisms, including fish and invertebrates. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. 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 invertebrates: LC₅₀ 1.02 ppb to 7.6 ppb

Pyrethrins

Acute Toxicity: Rainbow trout: LC₅₀ = 5.1 ppb
Sheepshead minnow: LC₅₀ = 16.0 ppb

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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: Not Applicable
Freight Classification: Insecticides NOI NMFC 155050 SUB 5 CLASS 65

15. REGULATORY INFORMATION

CERCLA (Superfund): Pyrethrins Reportable Quantity = 1 lbs.
RCRA: Not Regulated

SARA 311/312 HAZARD CATEGORIES

Immediate Health: Yes (irritation)
Delayed Health: No
Fire: No
Sudden Pressure: No
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.