

SAFETY DATA SHEET

Fly-Ban

1. IDENTIFICATION

Product name: **Fly-Ban**
Product type: Insecticide
EPA Registration No.: 53883-74
Chemical name of active ingredient(s): **Permethrin:** 3-(Phenoxyphenyl)methyl(±)cis-trans-3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
Piperonyl Butoxide: 5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-1,3-benzodioxole

Manufacturer/Registrant: Control Solutions, Inc.
5903 Genoa-Red Bluff
Pasadena, TX 77507

For fire, spill, and/or leak emergencies, contact Chemtrec: Phone: 1-800-424-9300
For medical emergencies and health and safety inquiries, contact Safety Call: Phone: 1-866-897-8050
Poison Control Center Phone: 1-800-222-1222

2. HAZARDS IDENTIFICATIONS

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Toxicity:

Exposure Route	Acute oral	Acute dermal	Acute inhalation	Eye irritation	Skin irritation	Skin Sensitization
Category	4	NC	4	2B	2	NC

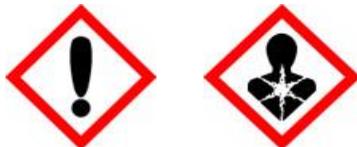
NC: Not classified

SIGNAL WORD: WARNING

HAZARD STATEMENTS:

- Harmful if swallowed.
- Harmful if inhaled.
- Cause eye irritation
- Cause skin irritation
- Suspected of causing cancer (Carcinogenicity- Category 2)

PICTOGRAMS:



PRECAUTIONARY STATEMENTS:

- Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If swallowed: Immediately call a poison center or a doctor. Rinse mouth.
- Avoid breathing mist, vapors or spray. Use only outdoors or in a well-ventilated area. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center if you feel unwell.
- Wash hands thoroughly after handling. Wear protective gloves. If on skin, wash with plenty of water. If skin irritation occurs: Get medical advice. Take off contaminated clothing and wash it before reuse.
- Wash hands thoroughly after handling. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice.
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

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Contact Safety Call® International for emergency medical treatment at (866) 897-8050.

PHYSICAL AND CHEMICAL HAZARDS: Do not use or store near heat or open flame.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Permethrin	52645-53-1	7.4	NE	NE	NA	IARC – 3*
Piperonyl Butoxide	51-03-6	7.4	NE	NE	NA	IARC – 3*
Petroleum Hydrocarbon	8052-41-3	5 - 15	500 ppm 2,900mg/m ³ (TWA)	100ppm (TWA)	350mg/m ³ (REL) ** 1,800mg/m ³ (C- 15- minute)	NA

NE= Not established; NA= Not applicable

*IARC Group 3: The agent (mixture or exposure circumstance) is unclassifiable as to carcinogenicity to humans.

** NIOSH exposure limits.

4. FIRST AID MEASURES

FIRST AID

IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • 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.
IF INHALED:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continuing rinsing eye. • Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this product, contact the National Pesticide Information Center, 1-800-858-7378, Monday-Friday, 7:30 AM-3:30 PM PST. You may also contact the National Poison Control Center, 1-800-222-1222, day or night, for emergency medical treatment information or SafetyCall® at (866) 897-8050. **FOR CHEMICAL EMERGENCY:** Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300

NOTE TO PHYSICIANS: This product may pose an aspiration pneumonia hazard. Contains petroleum distillate.

5. FIRE FIGHTING MEASURES

FLASH POINT: >230°F

FLAMMABLE LIMITS: Not determined

EXTINGUISHING MEDIA: Water fog, CO₂, foam, dry chemical.

UNUSUAL FIRE & EXPLOSION HAZARDS: Pesticide fires have potential to emit hazardous decomposition products.

FIRE-FIGHTING PROCEDURES: Isolate fire area and evacuate downwind. DO NOT breathe gases, smoke or vapors generated. Wear self-contained breathing apparatus and full-protective clothing. Cool fire exposed areas and equipment.

HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition.

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6. ACCIDENTAL RELEASE MEASURES

ABSORBENT MATERIALS AND CONTAINMENT: In case of spillage or leakages, soak up with an absorbent material such as sand, sawdust, earth, Fuller's earth, etc. Dispose of with chemical waste.

WASTE DISPOSAL: Sweep contaminated absorbent material into suitable container. Seal container and dispose of all contaminated waste material in municipal land-fill or through licensed TSDF. Open dumping is prohibited.

7. HANDLING AND STORAGE

Do not contaminate water, food, or feed by storage or disposal. Do not use or store near heat or open flame.

PRECAUTIONS TO BE TAKEN IN HANDLING: Avoid dermal contact. Take precautions to avoid damaging containers. Avoid cross contamination. Always wash hands thoroughly after handling pesticides and before eating, drinking, or smoking. Clean water should be available to rinse eyes and skin in case of chemical exposure.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store upright at room temperature. Avoid exposure to extreme temperatures. Store in a locked area out of reach of children and domestic animals. In case of spillage or leakages, soda up with an absorbent material such as same, sawdust, earth, Fuller's earth, etc. Dispose of with chemical waste.

STORAGE TEMPERATURE (MIN/MAX): Normal ambient temperatures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

SKIN PROTECTION: Long-sleeve shirt, long pants, shoes plus socks, Chemical-resistant apron.

HAND PROTECTION: Chemical-resistant gloves made of barrier laminate, nitrile rubber, neoprene rubber, or viton.

EYE PROTECTION: Protective eyewear or chemical safety glasses with side shields or chemical goggles when working in non-ventilated spaces.

RESPIRATOR REQUIREMENTS: None likely to be needed. NIOSH approved P class filtering face piece or respirator may be used to minimize inhalation of aerosols.

WORK HYGIENIC PRACTICES: Clean water should be available to rinse eyes and skin in case of chemical exposure. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

ADDITIONAL PROTECTIVE MEASURES: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS:

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

EXPOSURE GUIDELINES: Refer to Section 3.

ENGINEERING CONTROLS: Use only in adequately ventilated areas.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Light amber liquid

ODOR: Mild Hydrocarbon

pH: 5.0-5.5

FLASH POINT: >230°F

SPECIFIC GRAVITY: 0.858 g/ml

BULK DENSITY: 7.16 (lbs/gal)

SOLUBILITY IN WATER: Negligible

VISCOSITY: 32.6 mPa at 25°C

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Avoid exposure to extreme temperatures.

HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD₅₀ (Rat): > 500 mg/kg – 5,000 mg/kg

Acute Dermal LD₅₀ (Rabbit): >2,000 mg/kg

Acute Inhalation LC₅₀ (Rat): >2.02 mg/L/1 hr

Eye Irritation: Irritant

Skin Irritation: Mildly irritating

Dermal Sensitization: No data available

ROUTES OF EXPOSURE: Skin, eye, inhalation, ingestion.

POTENTIAL HEALTH EFFECTS:

EYE: May cause mild irritation to eyes. Avoid contact with eyes.

SKIN: May cause slight irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Harmful if absorbed through Skin. Avoid contact with skin and clothing.

INGESTION: Do not take internally.

INHALATION: Avoid inhalation of vapour or mist. May be harmful if inhaled.

CHRONIC TOXICITY:

Permethrin caused neurobehavioral effects (e.g., tremors) and/or organ effects (liver, lung, kidney) in chronic studies in rats, mice and dogs.

Piperonyl butoxide caused decreased body weights and/or increased organ weights (liver, kidney, adrenal) in chronic studies in rats and dogs.

CARCINOGENICITY:

Permethrin has low oncogenic potential in mice and no oncogenic potential in rats, therefore, EPA has concluded the likelihood of oncogenicity effects in humans from permethrin to be extremely low or nonexistent.

Piperonyl butoxide gave no evidence of a carcinogenic potential in a lifetime feeding study in rats. In an oncogenicity study in mice, piperonyl butoxide caused an increased incidence of liver tumors. The US EPA has categorized piperonyl butoxide as a group C carcinogen, possible human carcinogen, based on limited evidence of cancer in laboratory animals.

REPRODUCTIVE TOXICITY:

Permethrin was not a reproductive toxicant in multi-generation reproduction studies in rats.

Piperonyl butoxide was not a reproductive toxicant in a two-generation study in rats.

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DEVELOPMENTL TOXICITY:

Permethrin was not a primary developmental toxicant in rats, mice and rabbits. Developmental effects (e.g., decreased fetal weights) were observed in rats and rabbits but were considered secondary to maternal toxicity.

Piperonyl butoxide did not cause developmental, embryotoxic or teratogenic effects in developmental toxicity studies in rats and rabbits.

NEUROTOXICITY:

Permethrin caused neurobehavioral effects (e.g., tremors) in an acute and subchronic neurotoxicity screening study in rats without any correlating neuropathological changes.

Piperonyl butoxide did not demonstrate the potential to cause neurotoxicity in standard toxicity studies submitted to the Agency. EPA has concluded that there is not a concern for neurotoxicity resulting from exposure to piperonyl butoxide.

MUTAGENICITY:

Permethrin was not mutagenic or genotoxic in a battery of in vitro and in vivo mutagenicity studies.

Piperonyl butoxide does not have significant potential for mutagenicity based on sufficient evidence.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This pesticide 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. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems.

This pesticides 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.

BIOACCUMULATION (Permethrin): Will not bioaccumulate.

ENVIRONMENTAL FATE (Permethrin): The average half-life of permethrin in aerobic soils is 39.5 days, with a range from 11.6 to 113 days. Permethrin binds tightly to soil and is broken down primarily by microorganisms, but also by photolysis.

ECOTOXICOLOGICAL INFORMATION

Permethrin: (EPA Ecotox Database)

Rain trout LC₅₀ (96-h): 0.62 µg/L

Bluegill LC₅₀ (96-h): 0.79 µg/L

Bobwhite quail LD₅₀ (8-day): 5,200 ppm

Piperonyl Butoxide: (Based on Piperonyl Butoxide Technical)

Rainbow trout LC₅₀ (96-h): 6.12 ppm

Bluegill Sunfish LC₅₀ (96-h): 5.37 ppm

Bobwhite Quail LD₅₀ (Oral): > 2,250 mg/kg

Bobwhite Quail LC₅₀ (5-day dietary): > 5,620 ppm

Mallard Duck LC₅₀ (5-d dietary): > 5,620 ppm

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Do not contaminate water, food, or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

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14. TRANSPORT INFORMATION

DOT CLASSIFICATION: Not regulated.

Bulk: NA1993, combustible liquid, n.o.s. (petroleum distillates, permethrin), Class 3, PG III

INTERNATIONAL TRANSPORTATION:

IMO (vessel): UN3082, Environmentally hazardous substance, liquid, n.o.s. (permethrin), 9, PG III, marine pollutant

IATA (air): UN3082, Environmentally hazardous substance, liquid, n.o.s. (permethrin), 9, PG III

15. REGULATORY INFORMATION

FIFRA INFORMATION:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.

Section 311/312: Acute health hazard (immediate)

Chronic health hazard (delayed)

Section 313: Permethrin (7.4%) CAS #:52645-53-1

Piperonyl Butoxide (7.4%) CAS #: 51-03-6

CA PROPOSITION 65: Not applicable

CERCLA RQ: Not applicable.

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

HAZARD RATINGS	NFPA	HMIS	
HEALTH:	1	1	0 MINIMAL
FLAMMABILITY:	1	1	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

MSDS DATE: 7-15-2013. Supersedes versions 11-15-11. Changes made to all sections.

The information and recommendations contained herein are based upon data believed to be correct. However, no warranty of any kind, expressed or implied, is made with respect to the information contained herein.