

SAFETY DATA SHEET

STRYKER

1. IDENTIFICATION

Product name: **Stryker**
 Product type: Insecticide
 EPA Registration No.: 53883-308
 Chemical name of active ingredient(s): **Pyrethrin:** Pyrethrum
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	NC	NC	NC	2B	2	1

NC: Not classified

SIGNAL WORD: WARNING

HAZARD STATEMENTS:

- Cause skin irritation
- Cause eye irritation
- May cause an allergic skin reaction.

PICTOGRAMS:



PRECAUTIONARY STATEMENTS:

- Wear protective gloves and clothing. 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.
- Avoid breathing mist, vapors or spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. If on skin: wash with plenty of water. If skin irritation or rash occurs: get medical advice. Wash contaminated clothing before reuse.

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

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3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Pyrethrins	8003-34-7	6	5mg/m ³ (TWA)	5mg/m ³ (TWA)	5mg/m ³ (REL-TWA)**	NA
Piperonyl Butoxide	51-03-6	60	NE	NE	NA	IARC – 3*

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.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall® (866) 897-8050 for emergency medical treatment information.</p>	

5. FIRE FIGHTING MEASURES

FLASH POINT: NA

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.

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

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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 in original container in a cool, dry place inaccessible to children and pets. Store away from food and pet food.

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.

HAND PROTECTION: Chemical-resistant gloves.

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

RESPIRATOR REQUIREMENTS: Applicator using hand-held foggers in an enclosed area must wear a half-face, or hood-style NIOSH-approved respirator with a dust/mist filtering cartridge (MSHA/NIOSH approval number prefix TC-21C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a cartridge or canister with any R, P or HE filter.

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.

USER SAFETY RECOMMENDATIONS:

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear non-viscous oily liquid

ODOR: Mild musty characteristic odor

pH: 7.04

FLASH POINT: NA

SPECIFIC GRAVITY: 0.985 g/ml

BULK DENSITY: 8.26 (lbs/gal)

VISCOSITY: 308.7 cPs

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10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

CONDITIONS AND MATERIALS TO AVOID: Strong oxidizers.

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): > 3,129 mg/kg

Acute Dermal LD₅₀ (Rabbit): > 5,000 mg/kg

Acute Inhalation LC₅₀ (Rat): >5.06 mg/L (4-hr)

Eye Irritation: Irritation clearing within 48 hours

Skin Irritation: Moderately irritating (Produced a primary skin irritation index of 3.5)

Dermal Sensitization: A positive skin sensitizer

OTHER TOXICOLOGICAL INFORMATION:

CHRONIC TOXICITY/CARCINOGENICITY:

In a recent study, marginally higher incidences of benign thyroid, parathyroid, ovary, and liver tumors were observed in rats and in lungs of mice following lifetime high doses exposures to pyrethrum.

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

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: REPRODUCTION:

Pyrethrins appear to have low reproductive toxicity.

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

DEVELOPMENTL TOXICITY:

The one rabbit reproduction study performed showed no effect of pyrethrins on development of the offspring.

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

NEUROTOXICITY:

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:

Pyrethrum was not found to be genotoxic and did not damage DNA in any study conducted.

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

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This pesticide is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water though runoff. This product has a potential for runoff for

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several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product.

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.

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-waters or rinsate.

ECOTOXICOLOGICAL INFORMATION:

Pyrethrin is extremely toxic to aquatic life, such as bluegill and lake trout while it is slightly toxic to bird species, such as mallards. Toxicity increases with higher water temperatures and acidity. Natural pyrethrins are highly fat soluble, but are easily degraded and thus do not accumulate in the body. These compounds are toxic to bees also. (Extoxnet)

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.

14. TRANSPORT INFORMATION

CLASSIFICATION:

DOT (ground)

Packaging < 2 gals: Not regulated

Packaging ≥ 2 gals: UN3082, Environmentally hazardous substances, liquid, N.O.S. (Pyrethrin), 9, PGIII, RQ

IMO (vessel): UN3082, Environmentally hazardous substances, liquid, N.O.S. (Pyrethrin), 9, PGIII, RQ

IATA (air): UN3082, Environmentally hazardous substances, liquid, N.O.S. (Pyrethrin), 9, PGIII, RQ

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.

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CAUTION Harmful if swallowed. Avoid contact with skin or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves (such as Barrier Laminate, Nitrile Rubber, Neoprene Rubber or Viton, Selection Category E). Thoroughly wash hands with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.
Section 311/312: Acute health hazard (immediate)
Chronic health hazard (delayed)
Section 313: Piperonyl Butoxide (60%) CAS #: 51-03-6

CA PROPOSITION 65: Not applicable

CERCLA RQ: Pyrethrins (CAS 8003-34-7) RQ = 1 lbs (Product = 16.67 lbs/2 gals)

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:	0	0	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

MSDS DATE: 11-26-2012.

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.