

SAFETY DATA SHEET

SURRENDER PESTABS INSECTICIDE

1. IDENTIFICATION

Product name: **Surrender[®] brand PESTABS[®] INSECTICIDE**
 Product type: Insecticide
 EPA Registration No.: 53883-70
 Chemical name of active ingredient(s): **Lambda Cyhalothrin: [1 α (S*),3 α (Z)]-(\pm)-cyano-(3-phenyloxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate**

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:

	Acute oral	Acute dermal	Acute inhalation	Eye irritation	Skin irritation	Skin Sensitization
Category	4	NC	4	NC	NC	NC

NC: Not classified

SIGNAL WORD: WARNING

HAZARD STATEMENTS:

- Harmful if swallowed
- Harmful if inhaled

PICTOGRAM:



PRECAUTIONARY STATEMENTS:

- Wash hand thoroughly after handling. Do not eat, drink or smoke when using this product. If swallowed: Call a poison center or a doctor if you feel unwell. Rinse mouth.
- In inhaled: remove a person to fresh air and keep comfortable for breathing. 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.

PHYSICAL AND CHEMICAL HAZARDS: Do not use this product in or on electrical equipment due to the possibility of shock hazard.

Read the entire MSDS for a more thorough evaluation of the hazards.

3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Lambda-cyhalothrin	91465-08-6	10.0	NE	NE	NA	NA

NE=Not established; NA=Not applicable.

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4. FIRST AID MEASURES

FIRST AID	
If swallowed	<ul style="list-style-type: none">• Call 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 directed to do so by a 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, give artificial respiration, preferably mouth to mouth if possible.• Call a poison control center or doctor for further treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue 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	

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable

FLAMMABLE LIMITS: Not applicable

EXTINGUISHING MEDIA: Water fog, foam, carbon dioxide, dry chemical, halogenated agents.

UNUSUAL FIRE & EXPLOSION HAZARDS: Pesticide fires have potential to emit hazardous decomposition products, vapors, fallout and runoff water can result from fires depending on extent of combustion and presence of other combustible materials. Contaminated buildings, areas, and equipment must be properly decontaminated before reuse.

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

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: This material is harmful to aquatic organisms. Releases to natural waters should be reported to appropriate water pollution control authorities. Releases of untreated effluent to the sewer should be immediately reported to the public treatment works. Make sure all personnel involved in the spill cleanup follow good industrial hygiene practices. A small spill can be handled routinely. Use adequate ventilation to prevent inhalation. Wear suitable protective clothing and eye protection to prevent skin and eye contact. Use the following procedures:

- A. Raw pre-tableted powder material during manufacturing process is released or spilled.
- B. Raw pre-tableted powder material during transportation is released or spilled.
 1. Do not allow material to enter streams, sewers or other waterways.
 2. Sweep up or vacuum spilled material being careful not to create dust, and shovel into an open drum.
 3. Generously cover contaminated areas with common, household detergent (e.g. TIDE, registered trademark Proctor & Gamble Company). Using a stiff brush and small amounts of water, work detergent into the remaining material forming a slurry. Brush slurry into cracks and crevices and allow to sit for 2-3 minutes. Be careful to completely avoid skin or eye contact. Do not splatter on oneself or bystanders.
 4. Spread absorbent on the slurry liquid and shovel mixture into the open drum.
 5. Repeat #3 and 4 if necessary.
 6. Rinse with small amount of water and use absorbent to collect wash solution. Shovel into open drum.

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7. Seal drum and dispose of contaminated material in a facility permitted for hazardous waste. Large spills should be handled according to a spill plan. Otherwise, in case of emergency call, day or night, 800-424-9300, Chemtrec.

Note: For accidental releases or spills of Surrender brand Pestabs Insecticide end-use water dilutions, follow procedures described above except for Step 2.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Prevent skin and eye contact. Observe OSHA PEL limitations. Avoid breathing particulates. A sensitized individual should not be exposed to the product which caused the sensitization. Workers must follow good hygiene practices to avoid accidental ingestion. Mix only as needed.

PRECAUTIONS TO BE TAKEN IN STORAGE: Do not store near feed, food, or within the reach of children. Containers should be stored in a cool, dry, well-ventilated area away from flammable materials and sources of heat or flame. Exercise due caution to prevent damage to or leakage from the container. Do not store diluted material. Keep tablets in original package and store in a cool, dry area.

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.

HAND PROTECTION: Impervious gloves or Chemical-resistant gloves.

EYE PROTECTION: Protective eyewear, safety glasses, goggles or a faceshield, selected in regard to exposure potential.

RESPIRATOR REQUIREMENTS: Not normally needed for this product when tablet is diluted in water for end-use application. When needed, use MSHA/NIOSH approved respirator for pesticides.

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. Remove contaminated clothing and wash before rewearing. Wash separately from other laundry.

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/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: No ACGIH TLV or OSHA PEL is assigned to this mixture. Control of exposure to below the PEL for the ingredients (see Section 3) may not be sufficient. Minimize exposure in accordance with good hygiene practice. The manufacturer of the solvent recommends an exposure limit of 50 ppm as an 8-hr TWA.

ENGINEERING CONTROLS: Use only in adequately ventilated areas. Ventilation generally not required when treatment dilution is used but local exhaust or ventilation may be used if necessary.

Manufacturing: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Solid light beige colored tablet
ODOR:	Mild odor
MELTING POINT:	No data
VAPOR PRESSURE (mm Hg at 20 ⁰ C):	Not applicable
VAPOR DENSITY (air = 1):	Not applicable
SOLUBILITY IN WATER:	Tablet is dissolvable in water
pH:	5.9 for a 1% w/w dilution in deionized water
SPECIFIC GRAVITY:	Not applicable (Tablet does have a bulk density of 0.55 gl cm)
% VOLATILE BY VOLUME:	Not applicable

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.

INCOMPATIBILITY: Oxidizing agents, alkalies, calcium hypochlorite.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion products: Carbon dioxide, carbon monoxide. Nitrogen oxides, ammonia, cyanuric acid, biuret. Halogen, halogen acids, possible trace amounts of carbonyl halide.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD₅₀ (Rat): > 300 mg/kg
Acute Dermal LD₅₀ (Rabbit): > 2,000 mg/kg
Acute Inhalation LC₅₀ (Rat): > 2.2 mg/L/4 hr
Eye Irritation: Slightly irritating
Skin Irritation: Slightly irritating
Dermal Sensitization: Not a skin sensitizer

REPRODUCTIVE/DEVELOPMENTAL EFFECTS: Lambda-cyhalothrin technical: Not a developmental or reproductive toxicant.

CHRONIC/SUBCHRONIC TOXICITY STUDIES: Lambda-cyhalothrin technical: Reversible paresthesia (abnormal skin sensation). Reversible clinical signs of neurotoxicity in mammals.

CARCINOGENICITY: Lambda-cyhalothrin technical: No treatment-related tumors in rats or mice.

OTHER TOXICITY INFORMATION: In humans, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The effect may result from splash, aerosol, or hot vapor contact, or transfer to the face from contaminated gloves and hands. The symptoms normally disappear within 24 hours. Face and genital areas are especially susceptible to this effect. Paresthesia involving the face is also known as "subjective facial sensation" or SFS.

TARGET ORGANS: Lambda-cyhalothrin technical: Liver, nervous system

OTHER EFFECTS OF OVEREXPOSURE: Studies using laboratory animals exposed to high levels of the active ingredient lambda-cyhalothrin have shown that lambda-cyhalothrin may induce neurotoxic effects such as staggering gait, muscle tremors and convulsions. Prolonged exposure to high atmospheric concentrations of respirable dust of amorphous silica may cause non-progressive fibrosis of the lungs. Persons with skin, eye, respiratory or kidney disorders may be at increased risk from exposure to a component of this material.

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12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product is extremely toxic to fish and other aquatic organisms. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters, or surface waters. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on this label. When making applications, care should be used to avoid household pets, particularly fish and reptile pets. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

ECO-ACUTE TOXICITY: (Lambda-cyhalothrin technical)

Bees LC50/EC50:	0.038 ug/bee
Invertebrates (water flea) LC50/EC50:	0.00036 ppm
Fish (trout) LC50/EC50:	0.00024 ppm
Fish (bluegill) LC50/EC50:	0.00021 ppm
Bird (Bobwhite quail) 8-day dietary LC50/EC50:	>5300 ppm
Bird (Mallard duck) 8-day dietary LC50/EC50:	>3948 ppm

ENVIRONMENTAL FATE: Lambda-cyhalothrin technical: Not persistent in soil or water, Immobile in soil. Sinks in water after 24 hours.

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: This material is toxic to fish. Do not contaminate water, food, or feed by storage or disposal. Do not contaminate waterways by cleaning of equipment or by disposal of wastes. Untreated effluent should not be discharged where it will drain into lakes, streams, or ponds. Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: After tablet is removed, dispose of packaging in trash or by incineration. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Consumer Commodity ORM-D

INTERNATIONAL TRANSPORTATION:

IMO (vessel): UN3349, Pyrethroid pesticide, solid, toxic (Lambda-Cyhalothrin), 6.1, PG III, Marine Pollutant
IMDG EMS #: F-A, S-A

IATA (air): UN8000, Consumer Commodity, (Lambda-Cyhalothrin), 9, Packing Authorization: 910

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.

WARNING MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CAUSES MODERATE EYE IRRITATION. AVOID CONTACT WITH SKIN, EYES OR CLOTHING AND BREATHING SPRAY MIST. PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTIONS IN SOME INDIVIDUALS. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse.

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SARA TITLE III CLASSIFICATION:

Section 302: Not applicable.
Section 311/312: Acute health hazard (immediate)
Chronic health hazard (delayed)
Section 313: Not applicable

CA PROPOSITION 65: Not applicable

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

MSDS DATE: 07-18-2013. Supersedes versions 11-28-2006. 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.