1. IDENTIFICATION

Product name: Product type:	Cyper WP Insecticide Insecticide
EPA Registration No.:	53883-29
Chemical name of active ingredient(s):	Cypermethrin : (±) α-cyano-(3-phenoxyphenyl)methyl (±) <i>cis, trans</i> -3-(2,2-dichloroethenyl)-2,2- dimethylcyclopropanecarboxylate
Manufacturer/Registrant:	Control Solutions, Inc. 5903 Genoa-Red Bluff Pasadena, TX 77507
For fire, spill, and/or leak emergencies,	
contact Chemtrec: For medical emergencies and health and	Phone: 1-800-424-9300
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	Acute	Acute	Acute inhalation	Eye	Skin	Skin
Route	oral	dermal		irritation	irritation	Sensitization
Category	4	4	NC	2A	2	1B

NC: Not classified

SIGNAL WORD: Warning

HAZARD STATEMENTS:

- Harmful is swallowed.
- Harmful in contact with skin
- Cause skin irritation
- Cause serious eye irritation
- May cause an allergic skin reaction
- Suspected of causing cancer (Carcinogenicity- Category 2)
- Aquatic toxicity

PICTOGRAMS:



PRECAUTIONARY STATEMENTS:

- Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If swallowed: Call a poison center if you feel unwell. Rinse mouth. Do not induce vomiting.
- Wear gloves and protective clothing. If on skin: Wash with plenty of water. Call a poison center or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse.

- Wash hands thoroughly after handling. Wear eye protection or face protection. 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.
- Wash hand 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 was it before reuse.
- Avoid breathing mist, vapors and spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves. If on skin: Wash with plenty of water. If irritation or rash occurs: Get medical advice. Wash contaminated clothing before reuse.
- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

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

PHYSICAL AND CHEMICAL HAZARDS: This product is a combustible powder and is incompatible with oxidizing agents. This product can ignite burn and form explosive mixtures with air if not handled correctly.

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COMMON NAME	CAS NO.	%	OSHA		OTHE	NTP/IARC/OSHA
			PEL	ACGIH TLV	R	(Carcinogen)
Cypermethrin	52315-07-8	40	NE	NE	NA	NA
Other ingredients		60				
containing :						
Amorphous	112926-00-8		6 mg/m^3	10 mg/m ³	NA	IARC-3*
silica			(TWA)	(TWA)		
			(total dust)	(total dust)		
				3 mg/m ³		
				(Respirable		
				nuisance		
				particulate)		
Crystalline	14808-60-7		30 mg/m^3	0.025mg/m ³	NA	IARC – 1**
silica			(%SiO2 ⁺²)	(TWĂ)		NTP: 1***
			(TWA dust)	(Respirable		
			10 mg/m ³	fraction)		
			(Respirable			
			fraction)			

3. COMPOSITION/INFORMATION ON INGREDIENTS

NE= Not established; NA= Not applicable

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

** IARC Group 1: The agent (mixture) is carcinogenic to humans.

*** NTP Group 1: Substances or groups of substances, and medical treatments that are known to be carcinogenic.

4. FIRST AID MEASURES

	FIRST AID				
 IF IN EYES: Hold eye open and rinse slowly and gently with water 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then contin rinsing eye. Call a poison control center or doctor for treatment advice. 					
IF ON SKIN OR CLOTHING:					

IF SWALLOWED:	 Call a poison control center or doctor immediately for treatment advice. Have a 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 INHALED:	 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 further treatment advice.
Have the product co	ontainer or label with you when calling a poison control center or doctor, or going

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® (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, CO₂, foam, dry chemical.

UNUSUAL FIRE & EXPLOSION HAZARDS: Combustible powder. During a fire, irritating and possibly toxic gasses may be generated by thermal decomposition or combustion.

FIRE-FIGHTING PROCEDURES: Use appropriate extinguishing media for combustibles in the area. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the are to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

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

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak: Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in d disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: This material is capable of forming flammable dust clouds in air, which, if ignited, can produce a dust cloud explosion. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

In general personnel handling this material and all conducting equipment should be electrically earthed or grounded. Bulk bags (FIBC) used to contain this material should be Type B, Type C or Type D. Type C bags must be electrically grounded or earthed before powder is charged to or discharged from the bag. If metal or fiber drums are used to contain this material, make certain the metal parts are bonded to the filling equipment and grounded.

This material would not normally become readily charged.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling. Mix only as needed. Do not store diluted material. Keep water-soluble packets in original foil package and store in a cool, dry place. Do not store below 32°F. Handle carefully when stored at temperatures less than 50°F to avoid breakage of packets.

STORAGE TEMPERATURE (MIN/MAX): Store above 32°F

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: Chemical-resistant gloves (such as barrier laminate, butyl runner, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), Long-sleeve shirt, long pants, coveralls, chemical-resistant footwear plus socks.

EYE PROTECTION: Use dust-proof chemical goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

RESPIRATOR REQUIREMENTS: A particulate filter respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC21C or any N, R, P, or HE filter. Avoid breathing air from drum headspace. Hydrogen cyanide gas may be released during opening and dispensing, and in case of spills. Use local exhaust ventilation or air-supplied respiratory protection to keep exposures below the TLV Ceiling Limit.

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: Refer to product label. Use only in adequately ventilated areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Off-white fine powder ODOR: Mild pH: 7.68@25°C FLASH POINT: Not applicable BULK DENSITY: 0.4729 g/cm³ (29.6 lbs/ft³)

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

CONDITIONS AND MATERIALS TO AVOID: Oxidizing agents.

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): 1,800 mg/kg Acute Dermal LD₅₀ (Rat): 2,000 mg/kg Acute Inhalation LC₅₀ (Rat): Not toxic effects are known to be associated with inhalation of dust from this material.

Eye Irritation: Moderately irritating Skin Irritation: Will probably develop following repeated and/or prolonged contact with human skin Dermal Sensitization: A skin sensitizer

ROUTES OF EXPOSURE: Ingestion, inhalation, skin and eye contact

OTHER TOXICOLOGICAL INFORMATION: (Based on Cypermethrin Technical)

CHRONIC/SUBCHRONIC TOXICITY: NOEL (2-y) for dogs 5 mg/kg, rats 7.5 mg/kg. Nervous system effects typical of pyrethroids (motor incoordination, gait abnormalities) in a range of repeated dose studies (dog and rat). Possible nerve fiber degeneration in 14-day study in rats.

REPRODUCTIVE/DEVELOPMENT TOXICITY: There were no cypermethrin-induced effects in fertility in two separate two- litter three (filial) generation studies in the rat.

CARCINOGENICITY: Two separate 2-year feeding studies in the rat revealed no evidence of carcinogenicity that could be attributable to cypermethrin.

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.

Large doses of cypermethrin ingested by laboratory animals produced signs of toxicity including loss of motor control, tremors, decreased activity, urinary incontinence, incoordination, and increases in sensitivity to sound and convulsions.

TARGET ORGANS: CNS, eye, liver, skin

INFORMATION OF OTHER INGREDIENTS:

Amorphous silica: This compound is listed as an IARC (Group 3) carcinogen not classifiable as a human carcinogen (not data available) with limited animal evidence. Prolonged exposure to amorphous silica may cause damage to respiratory system and irritation to skin and eyes.

Crystalline silica: This compound is listed as an IARC Group 1 – carcinogenic to humans. Repeated exposure to high concentrations results in silicosis, a lung disease characterized by coughing, difficult breathing, wheezing, scarring of the lungs, and repeated, non-specific chest illnesses. NTP has classified respirable crystalline silica (quartz, cristobalite and tridymite) as "known to be a human carcinogen". The American Conference of Governmental Industrial Hygienists (ACGIH) has concluded that silica quartz is a suspected human carcinogen (A2 - limited evidence of carcinogenicity in humans and sufficient evidence of carcinogenicity in experimental animals with relevance to humans).

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This product is extremely toxic to fish and aquatic 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 runoff to water bodies or drainage systems.

ENVIRONMENTAL FATE (CYPERMETHRIN TECHNICAL): Rapidly degraded in soil with a half-life of 2-4 weeks. It is readily hydrolyzed under basic conditions; hydrolysis half-life period can be 20-29 days. Cypermethrin has a high affinity for organic matter and a Log P_{ow} of 5.0; yet, because of the ease with which the material undergoes degradation, it has very low potential for bioconcentration (BCF= 17), and it is not mobile in soil.

ECOTOXICOLOGICAL INFORMATION:

Rain trout LC_{50} : 0.92 µg/L Bluegill LC_{50} : 1.8 µg/L Bobwhite quail LC_{50} (8-day dietary): > 20,000 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

DOT (ground): Not Regulated

IMO (vessel): UN3077, Environmentally hazardous substance, solid, n.o.s. (cypermethrin), 9, PG III, marine pollutant

IATA (air): UN3077, Environmentally hazardous substance, solid, n.o.s. (cypermethrin), 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.

WARNING Causes substantial but temporary eye injury. Harmful if swallowed, inhaled or absorbed through the skin. Avoid contact with skin. Do not get in eyes or on clothing. Prolonged or frequently repeated skin contact may causes allergic reactions in some individuals. Wash thoroughly with soap and water after handling. Remove contaminated clothing before reuse.

SARA TITLE III CLASSIFICATION:

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

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 HEALTH: FLAMMABILITY: REACTIVITY:	NFPA 2 2 0	HMIS 2 2 0	0 1 2	MODERATE
			3 4	HIGH SEVERE

MSDS DATE: Revised 5-24-2013. Supersedes version dated 8-14-09. 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.