



SAFETY DATA SHEET

Cyonara 9.7

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABEL (attached to and accompanying the product container). This SDS is intended to provide important health and safety information for employers, emergency responders and others handling large quantities of the product in activities generally other than product use as required by the Occupational Health and Safety Act (29 CFR 1910.1200). The product label provides information specifically for product use/application. Use, storage, and disposal of pesticide products is regulated by the EPA under the authority of FIFRA through the product label. All necessary hazard classification and appropriate precautionary use, storage and disposal information is set forth on that label. It is a violation of federal law to use an EPA registered pesticide product in any manner inconsistent with its labeling.

SECTION 1: IDENTIFICATION

Product Name: Cyonara 9.7
EPA Registration No.: 53883-145
Recommended Use: Insecticide; See product label for a complete list of uses and use sites.
Restrictions on Use: See product label for any restrictions on the use of this product.
Chemical Family: Pyrethroid
Chemical Name of Active Ingredient(s): Lambda-cyhalothrin
Manufactured for: Control Solutions, Inc.
 5903 Genoa-Red Bluff
 Pasadena, TX 77507

FOR FIRE, SPILL, AND/OR LEAK EMERGENCIES CONTACT: CHEMTREC 1-800-424-9300

FOR MEDICAL EMERGENCIES AND HEALTH AND SAFETY INQUIRIES CONTACT: Safety Call 1-866-897-8050

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW: Colorless liquid with mild chemical odor. Contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia.

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Oral Toxicity	Category 4
Eye Damage/Irritation	Category 2B

OSHA Signal Word: WARNING



Hazard Statement(s): Harmful if swallowed
 Causes eye irritation

Precautionary Statement(s):

Prevention: Wash hands thoroughly after handling.
 Do not eat, drink or smoke when using this product.

Response: **IF SWALLOWED:** Call a poison center/doctor if you feel unwell. Rinse mouth.
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/attention.

Storage: No statement required. See Section 7 for additional information.

Disposal: Dispose of contents/container in accordance with Federal, state and local laws and regulations.

*Please see Section 15 for an explanation of the difference between this SDS and the product label.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight %
Lambda-cyhalothrin	91465-08-6	9.7
Acetophenone	98-86-2	5.0 – 10.0%

*Ingredients not listed or listed with a weight % range are considered a trade secret and are withheld under 29 CFR 1910.1200(i).

SECTION 4: FIRST AID MEASURES

IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15 to 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.
IF ON SKIN:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF INHALED:	Move person to fresh air. If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
IF INGESTED:	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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Most important symptoms/effects, acute and delayed: Contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. 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.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable Extinguishing Media:	Water jet as it may spread fire.
Hazardous Combustion Products:	Thermal decomposition may produce toxic carbon, nitrogen and sulfur oxides.
Special Protective Equipment & Precautions:	Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam and/or dry chemical are preferred to minimize environmental contamination. If water is used, dike and collect water to prevent run-off. Wear self-contained breathing apparatus and full fire-fighting turn-out gear (Bunker gear).
Unusual Fire & Explosion Hazards:	None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	See Section 8 for personal protection equipment.
Environmental Precautions:	Keep spilled material and any rinsate from contaminating soil or from entering sewage and drainage systems and bodies of water.
Methods for Containment:	Isolate the spill area. Keep unnecessary and unprotected personnel from entering. Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for re-use. C

Methods for Clean-up: Place recovered material in a separate container for re-use. After removal, flush contaminated area thoroughly with soap and water. Pick up wash liquid with additional absorbent and place in a disposable container. Do not put spilled material back in the original container.

Other Information: None known

SECTION 7: HANDLING AND STORAGE

Handling: RECOMMENDATIONS ARE INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS. PESTICIDE APPLICATORS AND WORKERS must refer to the product label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Handle and open container in a manner as to prevent spillage. Do not eat, drink or smoke while handling this product. Immediately wash off accidental contact with product from skin, clothing and out of eyes.

Storage: See pesticide label for full information on product storage. Do not contaminate water, food or feed by storage of this product. Store away from sources of heat, out of direct sunlight and away from incompatible materials. Pesticides should be stored in secured areas away from children and animals.

Storage Temperature (Min/Max): Avoid extreme temperatures

Product Incompatibilities: Strong oxidizers

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Users of a pesticide product must refer to the product label for personal protective equipment requirements.

Exposure Guidelines:

COMPONENT	OSHA PEL	ACGIH TLV	NIOSH REL
No components listed			

Engineering Controls: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs or other specified exposure limits. Local exhaust ventilation is preferred.

THE PERSONAL PROTECTIVE EQUIPMENT BELOW IS REQUIRED FOR PRODUCT APPLICATORS, END USERS, AND HANDLERS AND COMES FROM THE FIFRA APPROVED PESTICIDE LABEL:

No specific Personal Protective Equipment (PPE) required for use.

THE PERSONAL PROTECTIVE EQUIPMENT BELOW IS INTENDED FOR MANUFACTURING, PACKAGING AND COMMERCIAL BLENDING WORKERS:

Respiratory Protection: In areas of poor ventilation, use a NIOSH approved respirator with cartridges/canisters approved for pesticides.

Eye Protection: Chemical goggles or safety glasses and full-face shield.

Protective Gloves: Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile, neoprene rubber, polyvinyl chloride (PVC) or Viton.

Other Protective Clothing: Long-sleeved shirt, long pants and shoes plus socks.

General Safety Measures: Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless liquid	Upper/Lower Flammability Limits:	Not determined
Odor:	Mild chemical	Vapor Pressure:	Not determined
Odor Threshold:	Not determined	Vapor Density:	Not determined
pH (1% dispersion):	5.31	Density:	1.048 g/mL (typical)
Melting /Freezing Point:	Not determined	Solubility (water):	Not determined
Boiling Point/Range:	Not determined	Partition Coefficient:	Not determined
Flash Point:	Does not flash	Auto-ignition Temperature:	Not determined
Evaporation Rate:	Not determined	Decomposition Temperature:	Not determined
Flammability:	Not applicable	Viscosity:	1.62 (20°C) 78.676 (40°C)

*As an end-use mixture, many of the listed physical and chemical properties are not determined as they primarily apply to pure chemical substances.

SECTION 10: STABILITY AND REACTIVITY

Reactivity:	No hazardous chemical reactions known.
Chemical Stability:	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions:	No potential for hazardous reactions known.
Conditions to Avoid:	Avoid excessive heat
Incompatible Materials:	Strong oxidizing agents
Hazardous Decomposition Products:	Thermal decomposition may produce toxic carbon, nitrogen and sulfur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Dermal, Eye, Oral
Symptoms of Exposure:	Contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. 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.
Oral LD₅₀:	310.2 mg/kg (rat)
Dermal LD₅₀:	>5,000 mg/kg (rabbit)
Inhalation LC₅₀:	>2.02 mg/L (4-hr)(rat) actual limit test of 2 mg/L; 8 mg/L estimated based upon component data
Eye Irritation/Damage:	Mildly irritating (rabbit)
Skin Corrosion/Irritation:	Slightly irritating (rabbit)
Skin Sensitization:	Not a skin sensitizer (guinea pig)
Chronic/Subchronic Toxicity:	Lambda-cyhalothrin technical: Reversible paresthesia (abnormal skin sensation).

Mutagenicity: Lambda-cyhalothrin technical has not been shown to be a developmental or reproductive toxicant.

Reproductive Toxicity: Lambda-cyhalothrin technical has not been shown to be a developmental or reproductive toxicant.

Neurotoxicity: Reversible clinical signs of neurotoxicity in mammals.

Target Organs: Lambda-cyhalothrin technical – liver, nervous system

Aspiration Hazard: Not anticipated to be an aspiration hazard

Carcinogenicity:

Chemical Name	ACGIH	IARC	NTP	OSHA
No components listed				

SECTION 12: ECOLOGICAL INFORMATION

Environmental Hazards Statement from FIFRA Regulated Pesticide Label:

This product is extremely toxic to fish and other aquatic organisms. Do not contaminate water when cleaning equipment or disposing of equipment wash water. 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.

ECOTOXICITY DATA: Information provided below is specific to Lambda-cyhalothrin technical.

Fish Toxicity: Bluegill 96-hr LC₅₀ = 0.00021 ppm
Trout 96-hr LC₅₀ = 0.00024 ppm

Aquatic Invertebrate Toxicity: *Daphnia magna* 48-hr EC₅₀ = 0.00036 ppm

Aquatic Plant Toxicity: No data available

Avian Toxicity: Bobwhite Quail 8-day Dietary LC₅₀ >5,300 ppm
Mallard Duck 8-day Dietary LC₅₀ >3,948 ppm

Honeybee Toxicity: Contact LC₅₀ = 0.038 µg/bee

ENVIRONMENTAL EFFECTS:

Persistence and Degradability: No data available

Bioaccumulation: No data available

Mobility: No data available

Other Adverse Effects: No data available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Refer to the pesticide label for full information on disposal. Pesticide wastes are toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of Federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal: Refer to the pesticide label for full information on disposal. When possible, triple rinse the container and offer for recycling if available.

RCRA Characteristics: It is the responsibility of the individual disposing of this product to determine the RCRA classification and hazard status of the waste.

SECTION 14: TRANSPORTATION INFORMATION

DOT (Ground): Not regulated

IMDG (Sea): UN3082, Environmentally hazardous substance, n.o.s. (lambda-cyhalothrin), 9, PGIII, Marine Pollutant

IATA (Air): UN3082, Environmentally hazardous substance, n.o.s. (lambda-cyhalothrin), 9, PGIII, Marine Pollutant

SECTION 15: REGULATORY INFORMATION

Labeling Requirements Under FIFRA: 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 required for safety data sheets 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. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist or vapor. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

Difference between SDS and Pesticide Label

	EPA LABEL	OSHA SDS
Signal Word	WARNING	WARNING
Acute Oral Toxicity	May be fatal if swallowed	Harmful if swallowed
Acute Inhalation Toxicity	Harmful if inhaled	Not classified
Eye Damage/Irritation	Causes moderate eye irritation	Causes eye irritation

TSCA Inventory: This product is exempt from TSCA inventory listing requirements as it is solely for FIFRA regulated use.

SARA Title III Information:

Section 302 – Extremely hazardous substances: None

Section 311/312 – Hazard Categories: Immediate (Acute); Delayed (Chronic)

Section 313 – This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS Number	Weight %
None listed		

CERCLA – This product contains the following chemicals which have a reportable quantity (RQ) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Chemical Name	CAS Number	RQ	Quantity of Finished Product
Acetophenone	98-86-2	5,000 lbs.	No practical quantity

CALIFORNIA PROPOSITION 65:

Chemical Name	CAS Number	Prop 65 Category(ies)
None listed		

U.S. STATE RIGHT-TO-KNOW REGULATIONS:

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Acetophenone	X	X	

SECTION 16: OTHER INFORMATION

NFPA	Health Hazards 1	Flammability 1	Instability 0	Special Hazards – None
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