



SAFETY DATA SHEET

SDS ID: 74530-53

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	Kendo 9.7 CS
Product use / type:	Insecticide
EPA Registration No.:	74530-53
Chemical name / active ingredient(s):	Lambda-cyhalothrin
Manufacturer / Registrant:	Helm Agro US, Inc. 401 E. Jackson St., Suite 1400 Tampa, FL 33602
Manufacturer's Telephone:	813-621-8846
Email:	info@helmagro.com
Chemical emergencies:	1-800-424-9300 (Chemtrec)

2. HAZARDS IDENTIFICATION

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

Classification

Acute Toxicity - Inhalation	Category 4
Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 1

EMERGENCY OVERVIEW

Signal Word: WARNING

Pictogram:



Appearance: Off-white

Physical state: Liquid

Odor: Pungent

Hazard Statements:

- Harmful if inhaled.
- Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

- Avoid breathing mists / vapors / 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 / doctor if you feel unwell.

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Other Information / Potential Hazards:

May cause mild eye irritation.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight %
Lambda-Cyhalothrin	91465-08-6	9.7
Acetophenone	98-86-2	4.0
Other ingredients	Proprietary	86.3

4. FIRST AID MEASURES

If in Eyes:	<ul style="list-style-type: none">• Hold eye open and rinse 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.
If on skin or clothing:	<ul style="list-style-type: none">• Remove contaminated clothing and shoes.• Rinse skin with plenty of water for 15 minutes. If irritation develops, call a poison control center or seek medical advice.
If inhaled:	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or get medical help, then give artificial respiration, preferably by mouth-to-mouth if possible.• Call a poison control center or seek medical advice.
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Do not give any liquid to the person.• 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.
Note to Physician:	<ul style="list-style-type: none">• Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable properties:	Non-flammable.
Extinguishing media	Water spray, alcohol resistant foam, CO ₂ , dry chemical
Unsuitable extinguishing media:	High pressure water streams.
Firefighting measures:	Move container from fire area if it can be done without risk. Use extinguishing media appropriate for surrounding fire. Do not allow contaminated firefighting water and spillage to enter sewers, drains and waterways.
Protective equipment and precautions	Wear full protective firefighting gear including self-

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for firefighters: contained breathing apparatus pressure demand (MSHA/NIOSH approved or equivalent).

Hazardous decomposition products: Oxides of carbon and nitrogen. May release irritating and toxic vapors due to thermal decomposition.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear protective gloves / clothing and eye protection. Avoid contact with eyes, skin and clothing. Ensure adequate ventilation.

Environmental precautions: Collect spillage. Keep out of waterways, sewers, drains and confined areas.

Methods for containment: Contain spill with inert material (e.g. sand, silica gel, universal binder).

Methods for cleanup: Soak up with inert absorbent material. Sweep and shovel into properly labeled containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid breathing vapors or mists.

Precautions for safe storage: Store and handle in accordance with all current regulations and standards. Store in a tightly closed container. Store in a cool, dry place. Store in a well-ventilated area. Keep away from incompatible materials.

Incompatible storage situations: Separate pesticides during storage to prevent cross-contamination of other pesticides, fertilizers, food, and feed. Protect from extreme freezing temperatures.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Guidelines:

Acetophenone (CAS# 98-86-2): ACGIH: 10 ppm TWA

Engineering controls: Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye / face protection: Wear chemical-tight goggles.

Body / skin protection: Long sleeved shirt, long pants, shoes plus socks.

Hand protection: Wear gloves / hand protection.

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Respiratory protection: If handling without sufficient ventilation, wear a dust / mist filtering approved respirator with organic cartridge(s).

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Off-white
Odor:	Pungent odor
pH:	4.17
Boiling point:	No information available
Flash point:	Not applicable
Relative density:	1.01 g/ml
Water solubility:	Miscible
Viscosity:	No information available
Log pow:	No information available

10. STABILITY AND REACTIVITY

Reactivity / chemical stability: Stable under normal temperature and conditions.

Conditions / Materials to avoid: Keep away from heat, sparks and flame.

Hazardous decomposition products: Oxides of carbon, Oxides of nitrogen.

Hazardous reactions: Not expected under normal conditions of handling and use.

11. TOXICOLOGICAL INFORMATION

Product toxicology data:

Acute oral LD50: Rat LD₅₀: >5000 mg/kg
Acute dermal LD50: Rat LD₅₀: >5000 mg/kg
Acute inhalation LC50: Rat 4-hr LC50: >2.23 mg/l
Eye irritation: Nonirritating
Skin irritation: Nonirritating.
Sensitization: Not a sensitizer.

Component toxicology:

Lambda-cyhalothrin:
Acute oral LD50: Rat LD₅₀: 56 mg/kg
Acute dermal LD50: Rat LD₅₀: 632 mg/kg
Acute inhalation LC50: No information available

Carcinogenicity: No component of this product present at 0.1% or greater is listed by IARC, OSHA, NIOSH or NTP.
Mutagenic effects: No information available

12. ECOLOGICAL INFORMATION

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Environmental Hazards: Very toxic to aquatic life with long lasting effects. Do not apply to any body of water.

Product Ecotoxicity:

Fish: 96-hr LC50 Rainbow Trout: 0.06 mg/L

Algae: 72-hr LC50 Algae: 28.7 mg/L

Water flea: 48-hr LC50 Daphnia magna: 24.3 ug/L

13. DISPOSAL CONSIDERATIONS

Product disposal: Wastes resulting from the use of this product that cannot be used or chemically reprocessed must be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, State or local procedures.

Container disposal: Emptied container retains vapor and product residue. Observe all labeled safeguards until container is destroyed.

EPA waste number: Waste codes should be assigned by the user based on the application for which the product was used.
RCRA U-Series: Acetophenone – U004

14. TRANSPORT INFORMATION

U.S. DOT: Not subject to DOT regulation in packages less than 119 gallons (450 liters).
UN3082, Environmentally hazardous substance, liquid, n.o.s.(lambda-cyhalothrin), 9, III

15. REGULATORY INFORMATION

U.S. Federal Regulations:

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:

Signal word: Caution

EPA Registration No.: 74530-53

Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

TSCA: All components of this product are listed on or are exempt from listing on the TSCA chemical inventory.

SARA 311/312: Acute health

SARA 313: Acetophenone

CERCLA: Acetophenone: Final RQ 5000 lbs; 2270 Kg

U.S. State Regulations:

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State Right-to-Know Regulations:

Component	CAS No.	CA	MA	MN	NJ	PA
Acetophenone	98-86-2		X	X	X	X

California Proposition 65: No components listed

16. OTHER INFORMATION

NFPA Ratings:	Health	Fire	Instability
	1	0	0

Revision No.: 3.0
Revision Date: 03 March 2017
Revision Note: Revised sections: 2, 13 and 14.

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; GHS - Global Harmonized System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Association; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other information / Disclaimer

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End of Safety Data Sheet