



MATERIAL SAFETY DATA SHEET

1 PRODUCT AND COMPANY IDENTIFICATION

Product Name: Kendo EC

Manufacturer Name:
Helm Agro US, INC.
8275 Tournament Drive Suite #340
Memphis, TN 38125

Emergency Telephone:
ChemTrec 800-424-9300

Non-emergency Telephone:
901-312-1525

Intended Use: Insecticide

2 HAZARDS IDENTIFICATION

Emergency Overview

Physical State: Liquid
Color: Transparent, yellow
Odor: Solvent

DANGER!
Harmful if inhaled or swallowed. Causes eye irritation. May cause allergic skin reaction.
Combustible liquid and vapor.

Potential Health Effects

Inhalation: Harmful if inhaled.

Eye Contact: Causes eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

Skin Contact: May cause allergic skin reaction.

Ingestion: Harmful if swallowed.

Chronic Health Effects: Suspected to cause hypersensitivity and allergy.

Target Organ(s): | Central nervous system | Eye | Liver | Skin |

Potential Physical / Chemical Effects: COMBUSTIBLE.

OSHA Regulatory Status: This product is hazardous according to OSHA 29CFR 1910.1200.

3 COMPOSITION / INFORMATION ON INGREDIENTS

General Information: This product is toxic to fish and aquatic organisms.

Chemical Name	CAS-No.	Concentration*
†Mineral spirit	64742-94-5	78.4%
†Lambda cyhalothrin TC	91465-08-6	13.1%
Naphthalene	91-20-3	< 0.1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

† This chemical is hazardous according to OSHA/WHMIS criteria.

4 FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing stops, provide artificial respiration. For breathing difficulties, oxygen may be necessary. Get medical attention immediately.

Eye Contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin Contact: Wash with soap and water. Get medical attention if symptoms occur.

Ingestion: Give one or two glasses of water if patient is alert and able to swallow. Seek immediate medical attention. Do not induce vomiting.

5 FIRE-FIGHTING MEASURES

Extinguishing Media: Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable Extinguishing Media: Not applicable.

Special Fire Fighting Procedures: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Unusual Fire & Explosion Hazards: Combustible.

Hazardous Combustion Products: Carbon Oxides, Chlorides, Cyanides, Fluorides, Nitrogen Oxides

6 ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate personal protective equipment.

Spill Cleanup Methods: Small Liquid Spills: Absorb up with sand or other non-combustible absorbent material. Large Spillages: Flush area with water. Prevent runoff from entering drains, sewers, or streams.

7 HANDLING AND STORAGE

Handling: Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

Storage: Store away from incompatible materials.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Limits:**

Engineering Controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Eye Protection: Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

Hand Protection: Wear Neoprene or butyl rubber gloves with cuffs.

Skin Protection: Full protective clothing should be worn when handling this product.

Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental Exposure Controls: Environmental manager must be informed of all major spillages.

9 PHYSICAL AND CHEMICAL PROPERTIES

Color: Transparent, yellow

Odor: Solvent

Physical State: Liquid

pH: 5.22

Flash Point: 57°C (134°F)

Bulk Density: 0.925 kg/l - 0.935 kg/l

10 STABILITY AND REACTIVITY

Stability: Stable.

Conditions to Avoid: None known.

Incompatible Materials: Strong oxidizing agents.

Hazardous Decomposition Products: No data available.

11 TOXICOLOGICAL INFORMATION

Specified Substance(s)**Acute Toxicity:**

Test Results: No test data available for the ingredients.

Listed Carcinogens:

Chemical Name	IARC	NTP	OSHA	ACGIH
Naphthalene	Not Listed	Not Listed	Not Listed	A4

IARC: 1 = Carcinogenic to Humans; 2A = Probably Carcinogenic to Humans; 2B = Possibly Carcinogenic to Humans; 3 = Not classifiable as to carcinogenicity to humans; 4 = Probably not carcinogenic to humans; Not listed = Not evaluated by IARC.

ACGIH: A1 = Confirmed Human Carcinogen; A2 = Suspected Human Carcinogen; A3 = Confirmed Animal Carcinogen; A4 = Not classifiable as a human carcinogen; A5 = Not suspected to be a human carcinogen; Not listed = Not evaluated by ACGIH.

Product Information**Acute Toxicity:**

Test Results: Dermal LD50 (Rat): > 2000 mg/kg

Inhalation LC50 (4 hour(s), Other Test Organisms): 0.054-0.52 mg/l

Oral LD50 (Rat): 175 mg/kg

Other Acute: Causes eye irritation.

Chronic Toxicity: Suspected to cause hypersensitivity and allergy.

12	ECOLOGICAL INFORMATION
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Ecotoxicity: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Mobility: May cause long-term adverse effects in the aquatic environment.

Persistence and Degradability: No data available.

Bioaccumulation Potential: No data available.

13	DISPOSAL CONSIDERATIONS
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General Information: Dispose of waste and residues in accordance with local authority requirements.

Disposal Methods: No specific disposal method required.

Container: Since emptied containers retain product residue, follow label warnings even after container is emptied.

14	TRANSPORT INFORMATION
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DOT

UN No.: UN3352

Proper Shipping Name: Pyrethroid pesticide, liquid toxic (Lambda-cyhalothrin)

Class: 6.1

Packing Group: III

Label(s): 6.1

TDG**UN No.:** UN3352**Proper Shipping Name:** Pyrethroid pesticide, liquid, toxic (Lambda-cyhalothrin)**Class:** 6.1**Packing Group:** III**IATA****UN No.:** UN3352**Proper Shipping Name:** Pyrethroid pesticide, liquid, toxic (Lambda-cyhalothrin)**Class:** 6.1**Packing Group:** III**Label(s):** Toxic**IMDG****UN No.:** UN3352**Proper Shipping Name:** Pyrethroid pesticide, liquid, toxic (Lambda-cyhalothrin)**Class:** 6.1**Packing Group:** III**EmS No.:** F-A, S-A

15	REGULATORY INFORMATION
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Canadian Controlled Products Regulations: This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information.

WHMIS Classification: B3, D1A, D2B

Mexican Dangerous Statement: This product is dangerous according to Mexican regulations.

Inventory Status

Inventory Status: All components of this product are either listed or are exempt from listing on the U.S. Toxic Substances Control Act (TSCA).

US Regulations

CERCLA Hazardous Substance List (40 CFR 302.4): Not regulated.

SARA Title III

Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A): Not regulated.

Section 311/312 (40 CFR 370):

Acute (Immediate) Chronic (Delayed) Fire Reactive Pressure Generating

Section 313 Toxic Release Inventory (40 CFR 372): Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
Not regulated.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): Not regulated.

Drug Enforcement Act: Not regulated.

TSCA

TSCA Section 4(a) Final Test Rules & Testing Consent Orders: Naphthalene

TSCA Section 5(a)(2) Final Significant New Use Rules (SNURs) (40CFR 721, Subpt. E): Not regulated.

TSCA Section 5(e) PMN-Substance Consent Orders: Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Naphthalene

State Regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): Naphthalene

Massachusetts Right-To-Know List: Not regulated.

Michigan Critical Materials List (Michigan Natural Resources and Environmental Protection Act (Act. 451 of 1994)): Not regulated.

Minnesota Hazardous Substances List: Not regulated.

New Jersey Right-To-Know List: Not regulated.

Pennsylvania Right-To-Know List: Not regulated.

Rhode Island Right-To-Know List: Not regulated.

16	OTHER INFORMATION
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HAZARD RATINGS

	Health Hazard	Fire Hazard	Instability	Special Hazard
NFPA	2	1	0	NONE

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

NFPA Label colored diamond code: Blue - Health; Red - Flammability; Yellow - Instability; White - Special Hazards

	Health Hazard	Flammability	Physical Hazard	Personal Protection
HMIS	2	1	0	--

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

HMIS Label colored bar code: Blue - Health; Red - Flammability; Orange - Physical Hazards; White - Special

Issue Date: updt_status_changed_date 12-2-2010

Supersedes Date: 5-20-2008

SDS No.: 1013227

Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.