

Endure ULV**Section 1. IDENTIFICATION**1.1 Product Identifier

Date: August 11, 2015

Product Description: **Endure ULV**
Other Means of Identification: MGK Part Code: 27522
CAS Number: 66230-04-4
EPA Registration. No. 1021-1734-8536

SDS No.: 531-USA-CPP

1.2 Relevant Identified Uses of the Substance or Mixtures and Uses Advised Against

Recommended Use: Insecticide
Uses Advised Against: Use only in accordance with label instructions

1.3 Details of the Supplier of the Safety Data Sheet

Company: Cardinal Professional Products
PO Box 782
Hollister, CA 95024
Telephone M-F, 8:00-4:30 PDT: 800-548-2223

SDS & Product Information, 8:00-4:30 PDT: 800-548-2223 or 831-637-0195
E-mail: sds@cardinalproproducts.com

1.4 Emergency Telephone Numbers

**FOR CHEMICAL EMERGENCY (Spill, Leak, Fire, Exposure, or Accident)
Call CHEMTREC Day or Night**

Within USA and Canada: 800-424-9300
Outside USA and Canada: +1-703-527-3887 (collect calls accepted)

Poison Control Center: 800-222-1222

NOTE TO PESTICIDE HANDLERS: If the pesticide product end-use labeling contains specific instructions, requirements, or information that conflict with the requirements of the Worker Protection Standard or with this Safety Data Sheet (SDS), **follow the instructions, requirements, or information on the end-use labeling.** If there is a conflict between specific instructions or requirements in the Worker Protection Standard and this SDS, **follow the instructions or requirements of the Worker Protection Standard.** See Section 15 of this SDS for further information.

Section 2. HAZARDS IDENTIFICATION2.1 Classification of the Substance or Mixture

- Acute Toxicity, Inhalation (Dusts/Mists) Category 4
- Acute Toxicity, Category 4 (oral) - H302
- Acute Toxicity, Category 3 (inhalation) - H331
- Skin Corrosion/Irritation, Category 2 - H315
- Eye Damage/Irritation – Category 2B - H320
- Aspiration Hazard, Category 2 – H305
- Hazardous to the Aquatic Environment - Acute, Category 1 - H400
- Hazardous to the Aquatic Environment Chronic, Category 1 - H410

2.2 GHS Label Elements



Signal Word: **DANGER**

Hazard Statements

H332 –Harmful if inhaled
H304 – May be fatal if swallowed and enters airways

Precautionary Statements

Precautionary Statements - Prevention:

- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
- P271 - Use only outdoors or in a well-ventilated area
- P272 - Contaminated work clothing should not be allowed out of the workplace
- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
- P280 - Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response:

- P321 - Specific treatment (see Section 4/ First Aid).
- P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
- P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
- P363 - Wash contaminated clothing before reuse
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P331 - Do NOT induce vomiting
- P370 + P378 - In case of fire: Use CO₂, dry chemical, or foam for extinction

Precautionary Statements - Storage:

- P405 - Store locked up
- P403 + P235 - Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal:

- P501 - Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC):

Not applicable.

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixture of Substances

Chemical Name	CAS No	Weight-%
Esfenvalerate	66230-04-4	0.25
Petroleum distillates, hydrotreated light	64742-47-8	90<---->99 *

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Comments: Ingredients not identified are proprietary or non-hazardous. Values are not product specifications.

Section 4. FIRST AID MEASURES

Aspiration pneumonia hazard: • May be fatal if swallowed and enters airways.

Description of first aid measures:

Eye contact: 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.

Skin Contact: 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.

Ingestion: If swallowed, IMMEDIATELY call a poison control center or doctor 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 a doctor. Never give anything by mouth to an unconscious person.

Inhalation: Remove affected 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.

Self-protection of the First Responder: Use personal protective equipment as required.

Note to physicians: For skin effects, a highly efficient therapeutic agent for Pyrethrin/ Pyrethroid exposure is topical application of tocopherol acetate (Vitamin E).

Section 5. FIRE FIGHTING MEASURES
Suitable extinguishing media

Use. Dry chemical. Carbon dioxide (CO₂). Water spray (fog). Alcohol resistant foam.

Unsuitable extinguishing media:

Caution: Use of water spray when fighting fire may be inefficient.

Hazardous combustion products: Carbon monoxide. Carbon dioxide (CO₂).

Specific hazards arising from the chemical

Keep product and empty container away from heat and sources of ignition. Risk of ignition.

Explosion data

Sensitivity to Mechanical Impact: None.

Sensitivity to Static Discharge: None.

Protective equipment and precautions for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<u>NFPA</u>	Health hazards 2	Flammability 2	Instability 0	Physical and Chemical Properties
<u>HMIS</u>	Health hazards 1	Flammability 2	Physical hazards 0	-
				Personal protection
				X

Chronic Hazard Star Legend * = Chronic Health Hazard

Section 6. ACCIDENTAL RELEASE MEASURES
Personal precautions, protective equipment and emergency procedures

Personal precautions: Use personal protective equipment as required. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharges.

Environmental precautions: Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Pick up and transfer to properly labeled containers. Cover liquid spill with sand, earth or other non-combustible absorbent material. Cover powder spill with plastic sheet or tarp to minimize spreading. Soak up with inert absorbent material. Dam up. Take precautionary measures against static discharges.

Section 7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling: Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use with local exhaust ventilation. All equipment used when handling the product must be grounded. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). For more information, see product label.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers. For more information, see product label.

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters**

Exposure Guidelines: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls: Safety showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Tight sealing safety goggles. Face protection shield.

Skin and body protection: Wear protective gloves and protective clothing.

Respiratory protection: If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations: When using do not eat, drink or smoke. Wash contaminated clothing before reuse. Regular cleaning of equipment, work area and clothing is recommended.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES
Information on basic physical and chemical properties:

Physical state:	Liquid
Appearance:	Clear , light amber
Odor:	Solvent
Odor threshold:	No information available
Color (Gardner Scale):	1.0

<u>Property:</u>	<u>Values:</u>	<u>Comment: • Method</u>
pH:	7	@ 5% in H2O
Melting point / freezing point:	No information available	
Boiling point / boiling range:	No information available	
Flash point:	85.0 °C / 185.0 °F	Tag Closed Cup
Flame Extension Test:	No information available	
Evaporation rate:	No information available	
Flammability (solid, gas):	No information available	
Upper flammability limit (UEL):	No information available	
Lower flammability limit (LEL):	No information available	
Vapor pressure:	No information available	
Vapor density:	Heavier than air.	
Specific Gravity:	No information available	
Partition coefficient; n-Octanol/ Water:	No information available	
Autoignition temperature:	No information available	
Decomposition temperature:	No information available	
Kinematic viscosity:	No information available	
Dynamic viscosity:	9 cPs	@ 26.0 °C
Refractive Index:	1.4388	@ 25°C (77°F)

Other Information:

Density:	0.792 g/cm ³ @ 20.0 °C
VOC Content (%):	12.7

Miscibility/ Solubility:

Water:	Immiscible
Alcohol:	Miscible
Petroleum distillates:	Miscible
Aromatic solvents:	Miscible

Section 10. STABILITY AND REACTIVITY**Reactivity**

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.**Conditions to avoid**

Heat, flames and sparks.

Incompatible materials:

Incompatible with strong acids and bases. Incompatible with oxidizing agents.

Hazardous Decomposition ProductsCarbon monoxide, Carbon dioxide (CO₂)**11. TOXICOLOGICAL INFORMATION****Numerical measures of toxicity - Product Information**

Oral LD₅₀	>5,000 mg/kg (rat)
Dermal LD₅₀	>2,000 mg/kg (rabbit)
Inhalation LC₅₀	>2.64 mg/L (rat; 4 hours)
Eye contact:	Irritation clearing in 72 hours.
Skin Contact:	Irritation cleared in 72 hours.
Skin Irritation Index:	1.3

Sensitization: Negative. (guinea pig).**Comment:** Some of the above toxicity data was bridged from the insecticide concentrate, that is used in manufacturing this end-use product.**Carcinogenicity** This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Reproductive toxicity:	No information available.
Developmental Toxicity	No information available.
Teratogenicity:	No information available.
STOT - single exposure:	No information available.
STOT - repeated exposure:	No information available.
Chronic toxicity:	Avoid repeated exposure.
Neurological effects:	No information available.

Section 12. ECOLOGICAL INFORMATION**Ecotoxicity:****Persistence and degradability**

No information available.

Bioaccumulation

No information available.

Other adverse effects: No information available**Environmental hazards (EPA):**

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Section 13. DISPOSAL CONSIDERATIONS**Waste treatment methods****Disposal of wastes:** Disposal should be in accordance with applicable regional, national and local laws and regulations. For more information, see product label.**Contaminated packaging:** For more information, see product label.**Section 14. TRANSPORT INFORMATION****DOT (Department of Transportation)****Proper Shipping Name:** Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: Non-Hazardous**Other Shipping Information:** This material is **not** regulated by the DOT as a hazardous material when shipped in Non-Bulk quantities (*i.e.*, less-than 119 Gallons / 450 Liters).When shipping in Bulk-quantities (*i.e.*, more than 119 Gallons / 450 Liters), please contact Cardinal Professional Products for the proper shipping description.**Air (IATA/ ICAO)****Proper Shipping Name:** Insecticides, Insect or Animal Repellent, Liquid
Hazard Class: Non-Hazardous**Vessel (IMO/ IMDG)** Not available

Section 15. REGULATORY INFORMATION**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations:**California Proposition 65:**

This product does not contain any Proposition 65 chemicals

U.S. EPA Label Information:

EPA Registration Number: 1021-1734

Difference between SDS and EPA (FIFRA) Pesticide label:

This chemical is a pesticide product registered by the United States 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 (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use. The hazard information required on the pesticide label is reproduced below:

Signal word: **CAUTION**

Precautionary Statements:

- Harmful if absorbed through the skin.
- Causes moderate eye irritation.

International:

TSCA	Complies
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Does not comply
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Section 16. OTHER INFORMATION
Issue Date:

01-Apr-2015

Revision Date:

01-Apr-2015

Revision Note:

New SDS. GHS - Classification.

SDS Prepared By: Ed Hosoda, Cardinal Professional Products

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Abbreviations and Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement concerning the Internal Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CBRN	Chemical, Biological, Radiological, and Nuclear
CERCLA	Comprehensive Environmental Response, Compensation, and Liability, Act
CFR	Code of Federal Regulations
DOT	Department of Transportation (USA)
EC ₅₀	Half Maximal Effective Concentration - concentration of a material in water, a single dose which is expected to cause a biological effect on 50% of a group of test species.
EPCRA	Emergency Planning and Community Right to Know Act
FIFRA	Federal Fungicide, Insecticide, and Rodenticide Act
IARC	International Agency for Research on Cancer
IDLH	Immediately Dangerous to Life and Health - the maximum airborne concentration from which one could escape [within 30 minutes] without any escape-impairing symptoms or any irreversible health effects.
IMDG	International Maritime Dangerous Goods
LC ₅₀	Lethal Concentration - median dose at which 50% of test animals die from inhalation
LD ₅₀	Lethal Dose - median dose at which 50% test animals die from oral or dermal exposure
NOEC	No Observed Effect Concentration

NTP	National Toxicology Program
NFPA	National Fire Protection Association
OSHA	Occupational Health and Safety Administration
PBT	Persistent, Bioaccumulative, Toxic
ppm	part per million
PPE	Personal Protective Equipment
SARA	Superfund Amendments and Reauthorization Act
TWA	Time Weighted Average airborne concentration for a worker in an 8 hour day
vPvB	Very Persistent and Very Bioaccumulative

Key Literature References and Sources of Data:

- Toxnet – Toxicology Data Network, United States National Library of Medicine
- The International Uniform Chemical Information Database (**IUCLID**) – Organization for Economic Cooperation and Development (OECD)
- Manufacturer pesticide registration data for US EPA

Warranty

Notice: The information above is believed to be accurate and represents the best information currently available to us. Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.