

MATERIAL SAFETY DATA SHEET



Cardinal Professional Products

EPA Reg. No. 1021-1636-8536

EPA Est. No. 1021-MN-2

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1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT CODE: 2-027
PRODUCT NAME: ENDURE™ 35% WP
PRODUCT DESCRIPTION: Insecticide Concentrate in a water dispersible powder
CHEMICAL NAME: Mixture
MANUFACTURER: McLaughlin Gormley King Company, 8810 Tenth Avenue North, Minneapolis MN 55427
TELEPHONE M-F, 8:00-5:00 PST (530) 666-1020
24 HOUR EMERGENCY PHONE (INFOTRAC): (800) 535-5053

2. COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENT(s)	CAS #	EINECS	EXPOSURE LIMITS	% BY WT.
Esfenvalerate [(S)-Cyano (3-Phenoxyphenyl) methyl 4-Chloro-alpha-(1-methylethyl) Benzeneacetate]	066230-04-4	not available	2 mg/m ³ (TWA, skin) (supplier recommended)	35.00

PEL = Permissible Limits
TLV = Threshold Limit Value.

TWA = Time Weighted Average (8 hr.)
STEL = Short Term Exposure Limit (15 min.)

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS: EMERGENCY OVERVIEW

HUMAN:

CAUTION

EYES: CAUTION Can cause temporary irritation, tearing and blurred vision.
SKIN: CAUTION Can cause a burning sensation on more sensitive areas (face, eyes, mouth). Prolonged or repeated exposure can cause irritation and reddening of the skin, possibly progressing into dermatitis.
INGESTION: CAUTION Can cause stomach irritation, resulting in nausea, cramps and vomiting. Can cause nervous system disorders, such as fatigue, dizziness, headaches, lack of coordination, tremors and unconsciousness.
INHALATION: CAUTION Excessive inhalation can cause nasal and respiratory irritation, nausea and nervous disorders, such as fatigue, headaches, lack of coordination, tremors and unconsciousness.
CHRONIC EFFECTS: None known

SAFETY:

Eye irritant. May be fatal if swallowed in large amounts.
Overexposure by eye contact may initially include eye irritation with discomfort, tearing, or blurring of vision.
Overexposure by skin contact may initially include a transient (several minutes up to approximately 24 hours) persistent burning or prickling sensation which may be accompanied by visible irritation or rash.
Overexposure by ingestion may initially include nonspecific discomfort, such as nausea, vomiting, headache, or weakness; temporary nervous system effects such as muscular weakness, tremors and incoordination.
Individuals with preexisting diseases of the liver, kidneys, skin or peripheral nervous system may have increased susceptibility toxicity of excessive exposures.

ECOLOGICAL:

See sections 12 and 15.

See TOXICOLOGICAL INFORMATION (section 11)

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4. FIRST AID MEASURES

FIRST AID PROCEDURES:

- EYES:** Immediately flush with large amounts of water for at least 15 minutes. If irritation persists, get medical attention.
- SKIN:** Remove contaminated clothing and wash affected areas with soap and water. If irritation persists, get medical attention. Wash clothing separately before reuse.
- INHALATION:** Remove affected person to fresh air. Give oxygen, if necessary. If breathing has stopped, administer artificial respiration and seek medical attention immediately.
- INGESTION:** If swallowed, call a physician or poison control center immediately. Drink one or two glasses of water and induce vomiting by touching the back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.
- NOTE TO PHYSICIANS:** NONE

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: >200 °F METHOD: Fisher Tag Closed Cup

This product is classified as a non-flammable solid

FLAMMABLE LIMITS:

LOWER FLAMMABLE LIMIT: not established.

UPPER FLAMMABLE LIMIT: not established.

AUTOIGNITION TEMPERATURE: not established.

HAZARDOUS COMBUSTION PRODUCTS: Under fire conditions, this product may support combustion and decompose to give off toxic gasses such as carbon monoxide, carbon dioxide. Additionally, hydrogen cyanide may be produced by thermal degradation.

EXTINGUISHING MEDIA: Foam, carbon dioxide, or dry chemical.

FIRE FIGHTING INSTRUCTIONS: Treat as an oil fire. Use a full-faced self-contained breathing apparatus along with full protective gear. Keep nearby containers and equipment cool with a water stream. Contain the run-off, if possible, for proper disposal.

6. ACCIDENTAL RELEASE MEASURES:

SMALL SPILL: Shut off ignition sources. Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce dust vapors. Absorb with appropriate absorbent. Clean spill area of residues and absorbent.

LARGE SPILL: Shut off ignition sources. Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce dust vapors. Collect product into drums, etc, via drains, pumps, etc. Absorb with appropriate absorbent. Clean spill area of residues and absorbent.

WASTE DISPOSAL METHOD: Contaminated absorbent and wash water should be disposed of according to local, state and federal regulations.

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7. HANDLING AND STORAGE

HANDLING: Wear rubber gloves. Wear an OSHA-approved safety glasses, goggles or face shield. Mechanical ventilation should be used when handling this product in enclosed spaces. Wearing a NIOSH approved dust respirator is recommended when handling this product. Do not contaminate water, feed or food by storage, handling or disposal. Read and observe all precautions and instructions on the label.

STORAGE: Store containers upright and closed. Store in areas that are cool, dry and well-ventilated. Keep away from heat, ignition sources and strong oxidizers. Do not allow the temperature of material to exceed 160° F / 71°C since hydrogen cyanide may be produced. Emptied containers may retain product residues.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS: Not established by OSHA or ACGIH

ENGINEERING CONTROLS: Mechanical ventilation should be used when handling this product in enclosed spaces. Local exhaust ventilation may be necessary.

RESPIRATORY PROTECTION: Wear a NIOSH approved full-face respirator for use with fine dust particles.

SKIN PROTECTION: Wear rubber gloves and protective clothing.

EYE PROTECTION: Wear and OSHA-approved full-face respirator for use with fine dust particles.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Tan to gray free flowing powder

ODOR: Not applicable

PHYSICAL STATE: Solid

VAPOR PRESSURE: Not established

VAPOR DENSITY: Not established

BOILING POINT: Not established

MELTING POINT: Not applicable

SOLUBILITY IN WATER: Dispersible in water

BULK DENSITY: .29 gm / cm³ Fluff .40 gm / cm³ Packed

COLOR, (GARDNER): Not applicable

pH: 7.8 @ 1.0% in water

VISCOSITY: Not applicable

REFRACTIVE INDEX: Not applicable

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable

INCOMPATIBILITY: Not compatible with strong acids and bases. Not compatible with strong oxidizers.

HAZARDOUS DECOMPOSITION

PRODUCTS: Hydrogen cyanide may be produced by thermal degradation.

HAZARDOUS POLYMERIZATION: Will not occur

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11. TOXICOLOGICAL INFORMATION

ACUTE STUDIES:

INGESTION:

Acute Oral LD₅₀ (rat) .77 gm / kg

SKIN:

Acute Dermal LD₅₀ (rat) > 2.0 gm / kg

Primary skin irritation (rabbit): 0.17

Dermal Sensitization (guinea pig): May potentially be a weak dermal sensitizer

INHALATION:

Acute inhalation LC₅₀ (rat): > 5.51 mg/l

EYE:

Primary eye irritation (rabbit): Conjunctival irritation clearing within 4 days.

SUBCHRONIC:

DERMAL IRRITATION:

21-day repeated dose (rat) Not available

ORAL TOXICITY STUDY:

13 week (rat) Not available

90-Day Feeding Study (rat)

90-Day Feeding Study (dog)

28-Day Inhalation Study (rat)

CHRONIC:

CARCINOGENICITY:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as being carcinogens.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS:

This product is toxic to fish, birds and other wildlife. Do not apply directly to water. Do not contaminate water when disposing of equipment washwaters. 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.

PERSISTENCE IN THE ENVIRONMENT:

BIODEGRADATION:

Unknown

CHEMICAL DEGRADATION:

Unknown

TOXIC EFFECTS ON ORGANISMS:

Unknown

FISH: LC₅₀

Not established

BIRD: LC₅₀

Not established

TOXICITY TO USEFUL INSECTS:

Unknown

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13. DISPOSAL CONSIDERATIONS

RCRA \ CERCLA HAZARDOUS WASTE:

INGREDIENT
None

RCRA ID#: CERCLA RQ-VALUE

DISPOSAL METHOD: This product should be disposed of according to local, state and federal regulations. When disposing of waste or surplus avoid contact with eyes and skin. Wear impervious gloves/clothing and chemical safety goggles. Do not wash into drains. Do not mix with other waste materials.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION: Regulated as a hazardous substance according to the Department of Transportation in bulk quantities (greater than 119 gallons only):

PROPER SHIPPING NAME: Environmentally Hazardous Substances, Solid, N.O.S., Marine Pollutant (Esfenvalerate)

HAZARD CLASS: 9

IDENTIFICATION NUMBER (UN or NA) UN 3077

PACKING GROUP: III

INTERNATIONAL TRANSPORTATION REGULATIONS:

ICAO / IATA DESCRIPTION: Not considered hazardous by IATA Regulations for transportation via Air.

IMO DESCRIPTION (IMDG CODE): Environmentally Hazardous Substances, Solid, N.O.S., 9, UN 3077, III, Marine Pollutant (Esfenvalerate)

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

SARA TITLE III:

SECTION 302: Not listed

SECTION 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

CAS#:	CHEMICAL NAME:	% BY WEIGHT:
066230-04-4	Esfenvalerate [(S)-Cyano (3-phenoxyphenyl) methyl 4-chloro-alpha-(1 - methylethyl) benzeneacetate]	35.0%

STATE REGULATIONS:

VOLATILE ORGANIC COMPOUNDS (VOC): This product does not contain more than 20% VOC's

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16. OTHER INFORMATION

HMIS RATINGS:

We assign HMIS ratings on this product based on the hazards of its ingredient(s). Since the customer is most aware of the applications and conditions of use, he must ensure that the proper personal protective equipment is provided consistent with information contained in sections 7 and 8 of this MSDS.

HMIS RATINGS:	Health	1
	Flammability	1
	Reactivity	0

The data contained herein is based on information currently available to Cardinal Chemical Company, and believed to be factual and the opinions expressed to be those of qualified experts; however, this data is not to be taken as a warranty or representation for which Cardinal Chemical Company assumes legal responsibility.

Material Safety Data Sheet prepared by Ed Hosoda

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