

Ambrands
2030 Powers Ferry Road, Suite 370
Atlanta, GA 30339

800-265-0761

1. PRODUCT IDENTIFICATION

Product Name: AMDRO® Quick Kill Lawn & Landscape Insect Killer Granules

EPA Signal Word: CAUTION

Active Ingredient (%): Lambda-Cyhalothrin (0.04%) CAS No.: 91465-08-6

Chemical Name: [1a(S*),3a(Z)]-cyano(3-phenoxyphenyl)methyl-3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate

Chemical Class: A pyrethroid insecticide

Active Ingredient (%): Thiamethoxam (0.20%) CAS No.: 153719-23-4

Chemical Name: 4H-1,3,5-Oxadiazin-4-imine,3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro

Chemical Class: Neonicotinoid Insecticide

EPA Registration Number(s): 100-1304-73342

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	OSHA PEL	ACGIH TLV	Other	NTP/IARC/OSHA Carcinogen
Wood Dust	15 mg/m ³ TWA total, 5 mg/m ³ (resp)	1 mg/m ³ TWA (inhalable dust)	1 mg/m ³ TWA (REL)**	IARC Group 1
Lambda-Cyhalothrin (0.04%)	Not established	Not established	0.04 mg/m ³ TWA (skin)***	No
Thiamethoxam (0.20%)	Not established	Not established	3 mg/m ³ TWA***	No
Crystalline Silica, Quartz & Cristobalite	10 mg/m ³ (respirable dust)	0.025 mg/m ³ (respirable dust)	0.05 mg/m ³ **	IARC 1;ACGIH 1

**recommended by NIOSH
***Occupational Exposure Limit (OEL)

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

3. HAZARDS IDENTIFICATION

Health and Environmental: Causes mild eye and skin irritation. May cause respiratory tract irritation. May cause temporary itching, tingling, burning, or numbness of exposed skin, called parasthesia.

Hazardous Decomposition Products: None known

Physical Properties

Appearance: Brown solid

Odor: Musty

Unusual Fire, Explosion and Reactivity Hazards: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

4. FIRST AID MEASURES

Have the product container, label or Material Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call 800-265-0761, a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so after calling 800-265-0761 or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye and rinse slowly gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eyes. Call 800-265-0761, a poison control center or doctor for treatment advice.

Skin Contact: In on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call 800-265-0761, a poison control center or doctor for treatment advice.

Inhalation: In 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 800-265-0761, a poison control center or doctor for further treatment advice.

Notes to Physician: There is no specific antidote if this product is ingested. Treat symptomatically. Skin contact paresthesia effects (itching, tingling, burning and numbness) are transient, lasting up to 24 hours. Treat symptomatically.

Medical Condition Likely to be Aggravated by Exposure: None known.

5. FIRE FIGHTING MEASURES

Fire and Explosion

Flash Point (Test Method): Not available

Flammable Limits (% in Air): Lower: Not applicable Upper: Not applicable

Autoignition Temperature: 495 degrees F

Flammability: Not available

Unusual Fire, Explosion and Reactivity Hazards: During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

In Case of Fire: Use dry chemical, foam or CO₂ extinguishing media. Wear full protection clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak: Control the spill at its source. Contain the spill to prevent from spreading and contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy and Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

7. HANDLING AND STORAGE

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS. CONSULT THE PRODUCT LABEL.

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Where eye contact is likely, use dust-proof chemical goggles.

Skin Contact: Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton), coveralls, socks and chemical-resistant footwear. Stringent housekeeping measures are necessary to prevent translocation of the material from contaminated work surfaces to uncontaminated surfaces (railings, doors, etc.). Unprotected contact with such translocated material can result in paresthesia effects (see Section 11 of MSDS). Do not touch unprotected skin areas (face) with contaminated gloves or clothing.

Inhalation: A particulate filter respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH approved respirator with any HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Brown solid

Odor: Musty

Melting Point: Not available

Boiling Point: Not applicable

Specific Gravity/Density: 0.67 – 0.69 g/ml

pH: 7.3 (1% solution in deionized H₂O @ 77 degrees F [25 degrees C])

Solubility in H₂O

Lambda-Cyhalothrin: 0.004 mg/l

Thiamethoxam: 4.1 g/l @ 77 degrees F (25 degrees C)

Vapor Pressure

Lambda-Cyhalothrin:	1.5 x 10 ⁽⁻⁹⁾ mmHg @ 68 degrees F (20 degrees C)
Thiamethoxam:	2 x 10 ⁽⁻¹¹⁾ mmHg @ 68 degrees F (20 degrees C)

10. STABILITY AND REACTIVITY

Stability:	Stable under normal use and storage conditions
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	None known
Materials to Avoid:	None known
Hazardous Decomposition Products:	None known

11. TOXICOLOGICAL INFORMATION

Acute Toxicity/Irritation Studies (Finished Product)

Ingestion:	Oral (LD ₅₀ Female Rat):	> 5000 mg/kg body weight
Dermal:	Dermal (LD ₅₀ Rabbit):	>5050 mg/kg body weight
Inhalation:	Inhalation (LC ₅₀ Rat):	Not available
Eye Contact:	Minimally irritating (Rabbit)	
Skin Contact:	Practically Non-irritation (Rabbit)	
Skin Sensitization:	Not a sensitizer (Guinea Pig)	

Reproductive/Developmental Effects

Lambda-Cyhalothrin:	Not a developmental or reproductive toxicant.
Thiamethoxam:	Developmental: Not teratogenic in rats or rabbits.
Reproductive:	No effects on reproduction. Minor increase in a common testis effect in rats at high doses, which did not affect reproduction. When used in accordance with label directions and recommendations in this MSDS, no effects would be expected in humans.

Chronic/Subchronic Toxicity Studies

Lambda-Cyhalothrin:	Reversible paresthesia (abnormal skin sensation). Reversible clinical signs of neurotoxicity in mammals.
Thiamethoxam:	Subchronic: Liver effects occurred in rodents only at high dose levels. Not neurotoxic after Acute and subchronic exposure in rats.

Carcinogenicity

Lambda-Cyhalothrin:	No treatment-related tumors in rats and mice.
Thiamethoxam:	Classified as "not likely to be carcinogenic in humans" based on lifetime studies in mice and rats.

Other Toxicity Information

In humans, contact with exposed skin may result in temporary itching, tingling, burning or numbness, called paresthesia. The effect may result from splash, aerosol, or hot vapor contact, or transfer to the face from contaminated gloves and hands. 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.

Toxicity of Other Components

Crystalline Silica:	Chronic inhalation exposure to crystalline silica is known to cause silicosis and pulmonary fibrosis in humans. Experimental animals exposed to crystalline silica developed respiratory tract cancers.
Wood Dust:	Wood dust may cause mechanical irritation to the eye. Wood dust of certain species can elicit allergic contact dermatitis in sensitized individuals. Inhalation of wood dust may cause obstruction in nasal passages. May cause respiratory tract irritation.

Target Organs

Active Ingredients

Lambda-Cyhalothrin:	Liver, nervous system
Thiamethoxam:	Liver

Inert Ingredients

Crystalline Silica	Respiratory tract
Wood Dust:	Eye, skin, nasal passages, respiratory tract

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Lambda-Cyhalothrin:	Fish (Rainbow trout) 96-hour LC ₅₀ 0.19 ppb Bird (Mallard Duck) LD ₅₀ Oral > 3950 mg/kg Invertebrate (Water Flea) 48-hour ED ₅₀ 0.04 ppb
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Thiamethoxam:	Fish (Rainbow trout) 96-hour LC ₅₀ > 100 ppm Bird (Mallard Duck) LD ₅₀ Oral 576 mg/kg Invertebrate (Daphnia Magna) 48-hour EC ₅₀ >106 ppm Green Algae 4-day EC ₅₀ >97 ppm
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Environmental Fate

Lambda-Cyhalothrin:	The information presented here is for the active ingredient, lambda-cyhalothin. Not persistent in soil or water. Immobile in soil. Sinks in water (after 24 h).
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Thiamethoxam:	The information presented here is for the active ingredient, thiamethoxam. Not persistent in soil. Stable in water. Moderate mobility in soil. Floats in water (after 24 h).
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13. DISPOSAL CONSIDERATIONS

Disposal: Do not reuse product containers. Dispose of product containers, waste containers and residues according to local, state and federal health and environmental regulations.

Characteristic Waste: Not applicable

Listed Waste: Not applicable

14. TRANSPORT INFORMATION

DOT Classification: Ground Transport – NAFTA
Not regulated

Comments:

Water Transport – International
Proper Shipping Name – Environmentally Hazardous Substance, Solic, N.O.S. (Lambda-Cyhalothrin), Marine
Pollutant
Hazard Class or Division – Class 9
Identification Number: UN 3077
Packaging Group: PG 111
IMDG EMS#: F-A, S-F

Air Transport – International
Proper Shipping Name: Environmentally Hazardous Substance, Solic, N.O.S. (Lambda-Cyhalothrin), Marine
Pollutant
Hazard Class or Division: Class 9
Identification Number: UN 3077
Packing Group: PG III

15. REGULATORY INFORMATION

California Proposition 65: Not Applicable

CERCLA/SARA 302 Reportable Quantity (RQ): None

RCRA Hazardous Waste Classification (40 CFR 261): Not applicable

TSCA Status: TSCA R&D Exempt

16. OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 1
Instability: 0

HMIS Hazards Ratings

Health: 2
Flammability: 1
Reactivity: 0

0	Minimal
1	Slight
2	Moderate
3	Serious
4	Extreme

For non-emergency questions about this product call: 800-265-0761

Date: September 12, 2011

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.