

SAFETY DATA SHEET



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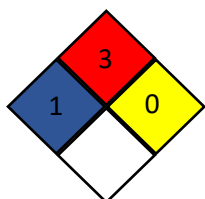
THYME GUARD

SECTION 1: PRODUCT IDENTIFICATION

Product identifier: Thyme Guard
Manufacturer: AGRO RESEARCH INTERNATIONAL LLC
29203 State Road 46.
Sorrento, FL. 3277
Manufacturer phone: 1 407 302 6116
Recommended uses and restrictions: Bactericide and fungicide used as part of a protection program for plants and crops.
Emergency phone: **1 407 435 9105**

SECTION 2: HAZARDS IDENTIFICATION

Classification (GHS): Acute Toxicity. Category: 5
Flammable liquid. Category: 4
Signal word (OSHA): Warning
Hazards statements: H313: May be harmful in contact with skin
H333: May be harmful if inhaled
H303: May be harmful if swallowed
Hazard symbols: None
Precautionary statements: P210: Keep away from heat/sparks/ open flames/ hot surfaces. No smoking.
P280: Wear protective gloves/ protective clothing/ eye protection.
P304+P312: IF INHALED: Call doctor/ physician if you feel unwell.
P370+P378: In case of fire: Use appropriate media to extinguish.
P403+P435: Store in a well-ventilated place. Keep cool.
P501: Dispose of contents/container in accordance with local regulations.
Other classifications:
NFPA Rating:
HMIS Rating:



Health	2
Flammability	3
Physical hazard	0

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CHEMICAL NAME	Concentration %	CAS #
Thyme oil	Thyme oil	23	N/A
Soap	Soap	>40	N/A
Isopropyl alcohol	2-propanol	20-27	67-63-0
Water	Water	1-5	N/A

SECTION 4: FIRST AID MEASURES

Ingestion: NEVER induce vomiting unless directed to do so by medical personnel.

Rinse mouth with water.

Never give anything by mouth to an unconscious person.

Seek medical attention if consumed in large quantities.

Inhalation: If inhaled bring the person immediately to take fresh air.

If breathing is difficult, give oxygen provided a qualified individual is present.

Seek medical attention if discomfort persists.

Skin contact: Immediately wash with plenty of water for at least 15 minutes.

Remove contaminated clothing and wash before use.

Apply after moisturizer cream on the affected area.

Seek medical attention if irritation develops.

Eye contact: if you wear contact lenses remove them immediately.

Rinse with plenty of water for at least 15 minutes, keeping eyelids open.

Seek medical attention if irritation persists.

Most important symptoms/effects: Not applicable.

Indication of immediate medical attention and special treatment needed: Treat symptomatically and supportively.

SECTION 5: FIRE-FIGHTING MEASURES

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Suitable extinguish media:

Use media appropriate for surrounding fire dry chemical, carbon dioxide or extinguishing foam.
Use water to cool exposed containers.
Flammable in presence of a source of ignition when temperature is above the flash point.

Special protective equipment and precautions for firefighters:

Wear a self-contained breathing apparatus and full protective gear.

Specific hazards:

Product mists and thermal decomposition products, which may produce oxides of carbon and sulfur and other organic substances.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Use personal protective equipment recommended. (Section 8). Avoid contact with skin, eyes, and clothing. Avoid breathing vapors, mist or gas. Keep unnecessary personnel away.

Environmental precautions: Do not dump into rivers or lakes, keeping away from drains, surface, and groundwater.

Methods and materials for containment and cleaning up: Stop the spill immediately. Pump the product into drums for disposal. Wash the affected area with plenty of water.

SECTION 7: HANDLING AND STORAGE

Handling: Avoid direct eye contact. Use only in well-ventilated area. Wash thoroughly exposed parts after handling and complies with the recommendations issued by the area of occupational safety.

Storage: Keep away from heat, sparks, flame and other sources of ignition. Store in a clean and dry place. Store in original sealed containers, in a place where the temperature is below 95°F (35°C). Do not store with incompatible materials such as strong oxidizing agents, strong acids and alkalis. It must be protected against physical damage and properly labeled.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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Exposure limits:

Component	OSHA PEL	ACGIH TLV
Isopropyl alcohol	400 ppm / 980 mg/m ³	200 ppm / 492 mg/m ³
Thyme	Not established	Not established
Soap	Not established	Not established
Water	N/A	N/A

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value over 8 hours of work

Engineering control:

Provide adequate ventilation. Install emergency showers and eye wash close to storage and handling areas.

Individual protection measures:

Eye Protection: Use safety glasses with side shields or chemical safety goggles.

Skin Protection: Wear clothing and butyl/nitrile rubber gloves during work. Gloves and protective clothing should be worn when working with a prolonged contact in your pure form.

Respiratory Protection: Ventilation should be adequate if you work for a long time. Follow the OSHA respirator regulations found in 29 CFR 1910.134. In confined areas, use a self-contained breathing apparatus.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Colour:	Pale yellow
Odor:	Characteristic of thyme
Viscosity:	< 100 cps at 25°C
Boiling point (°C)	>181°F (83°C)
Specific gravity (Water = 1)	1,012 at 23°C
Vapor pressure (mm Hg)	N.A.
% Volatile (Wt%)	Aprox 70%
Density (Water = 1)	0,9948 at 21°C
Evaporation rate (Water +1)	< 1
Solubility in water, fats, and organic solvents	Complete
pH	9,0 – 10,5
Flash Point	75-77°F (24 – 25°C)

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SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: This product is stable under normal storage conditions. It is not polymerized.

Possibility of hazardous reactions: Will not occur

Conditions to avoid: High temperatures or excessive heat, open flames and other sources of ignition.

Incompatible materials: Reactive with strong oxidizing agents, alkalis, and strong acids.

Hazardous decomposition products: Excessive heat decomposition can produce carbon and sulfur oxides and other organic substances.

SECTION 11: TOXICOLOGICAL INFORMATION

Potencial health effects:

Likely routes of exposure: Dermal, inhalation.

Symptoms of exposure:

Eyes: Causes eye irritation, ardency, and redness.

Skin: Skin dryness and irritation may appear.

Ingestion: Causes nausea, vomit, abdominal pain, diarrhea, and drowsiness.

Inhalation: Causes throat irritation, headache, nausea and possible drowsiness.

Numerical measures of toxicity (acute toxicity/irritation studies (finish product)):

Thyme Guard diluted: They have conducted toxicity studies in which 3 types of toxicity (dermal, oral and inhalation), 2 types of irritation (eye and skin) and a sensitization study were included, which conclude that the product does not generate reaction severe dermal and eye irritation in the least.

Ingestion (LD₅₀ Rat): >5000 mg/kg body weight.

Dermal (LD₅₀ Rat): > 5000 mg/kg body weight.

Inhalation (LD₅₀ Rat): > 2.01 mg/L air.

Skin sensitization: Is not considered to be a positive contact sensitizer. (Guinea Pig)

Eye contact: Minimally irritating to the eye. (Rabbit)

Skin Irritation: Slightly irritating. (Rabbit).

Effects of Chronic Exposure:

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Skin Irritation: Frequent contact for prolonged periods can cause skin dryness, redness, and dermatitis, can also generate awareness in some people.

Inhalation Effects: The daily inhalation in large amounts can cause drowsiness, dizziness, nausea and headache.

Carcinogenicity: Not predictable

Mutagenicity: N/A.

Synergistic Materials: Solvents and soaps.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Thyme:

Test	Subject	Value	Time
LC50	Daphnia magna	3200ug/L	96 hours
LC50	Gammarus fasciatus	3200 ug/L	96 hours
LC50	Pimephales promelas	3200 ug/L	96 hours

Isopropyl Alcohol:

Test	Subject	Value	Time
LC50	Daphnia magna	>10,000 mg/L	48 hours
EC50	Scenedesmus subspicatus	>1,000 mg/L	72 hours
LC50	Pimephales promelas	9,640 mg/L	96 hours

Persistence and degradability: Completely biodegradable. Its active ingredient (thyme) according to studies is recognized as biodegradable, using OCDE 301E method, biodegradable in 14 days.

Bioaccumulative potential: Low potential. The degradation products are not toxic.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of waste in accordance with federal, state, and local regulations. In general, it can be removed through the wastewater down the drain or in an approved landfill, as the organic matter of this product is biodegradable.

SECTION 14: TRANSPORT INFORMATION

The Transportation of Dangerous Good Act classification for this product is: Not regulated. DOT Classification: non-toxic, non-corrosive, chemical NOI, non-hazardous.

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SECTION 15: REGULATORY INFORMATION

Exempted from EPA registration under FIFRA 25(b).

SECTION 16: OTHER INFORMATION

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Prepared by Agro Research International LLC.

References:

The information contained in this safety data sheet material was obtained from sources believed to be accurate and reliable from a technical point of view. Despite that they have been deployed all efforts to ensure full disclosure of product hazards, in some cases, no data are available, which is declared. Whereas the conditions under which the product is used in practice are beyond the control of the supplier, it is assumed that users of this material have been fully trained according to the standards of industrial safety of each user. No express or implied warranties are given, and the provider is not liable for losses, injuries or consequential damages that may result from using or reliance on information contained herein.

Abbreviations:

GHS: Globally Harmonized System

OSHA: Occupational Safety and Health Administration

NFPA: National Fire Protection Association

HMIS: Hazardous Materials Identification System

LD₅₀: Median Lethal Dose of a substance or radiation that is fatal to half of a group of test animals.

LC₅₀: Half Lethal Concentration.

EC₅₀: Half Maximum Effective Concentration.

OCDE: Intergovernmental Economic Organisation

DOT: Department of Transportation.

NOI: Notice of Intent – Chemical Safety Protocol

EPA: United States Environmental Protection Agency

FIFRA: The Federal Insecticide, Fungicide, and Rodenticide Act

USDA: United States Department of Agriculture

CPA: Crop Production Aid.

CFR: Code of Federal Regulations.