

SAFETY DATA SHEET



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THYME GUARD

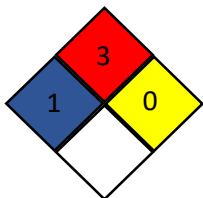
SECTION 1: PRODUCT IDENTIFICATION

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: Natural pesticide, fungicide, and bactericide
Emergency number: **1 407 435 9105** (Monday -Friday; 9am – 5pm)

SECTION 2: HAZARDS IDENTIFICATION

Classification (GHS): Acute Toxicity. Category: 5
Flammable liquid. Category: 2
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 - ≤ 40 %	8007-46-3
Isopropyl alcohol	2-propanol	≥ 20 - ≤ 40 %	67-63-0
Soap	Fatty acids, potassium salts	≥ 20 - ≤ 40 %	N/A

SECTION 4: FIRST AID MEASURES

- First-aid measures after inhalation:** Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact:** Remove/Take off immediately all contaminated clothing. Wash off immediately and plentifully with water for at least 20 minutes. Wash skin thoroughly with mild soap and water. Call a physician if irritation develops.
- First-aid measures after eye contact:** Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Rinse thoroughly with plenty of water for at least 20 minutes and take medical advice. Call a physician if irritation persists.
- First-aid measures after ingestion:** Rinse mouth. Do not induce vomiting. Call a physician immediately.

Most important symptoms/effects:

- Symptoms/effects after inhalation: May cause drowsiness or dizziness.
- Symptoms/effects after skin contact: Causes burns.
- Symptoms/effects after eye contact: Serious damage to eyes
- Symptoms/effects after ingestion: Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

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

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SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguish media:

Water fog. Water spray. dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂).

Unsuitable extinguishing media:

Do not use a heavy water stream.

Fire hazard: Highly flammable liquid and vapor. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. On combustion, forms: carbon oxides (CO and CO₂).

Explosion hazard: No direct explosion hazard.

Hazardous decomposition products in case of fire: Thermal decomposition can lead to the release of irritating gases and vapors.

Special protective equipment and precautions for firefighters:

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Evacuate unnecessary personnel.

For non-emergency personnel:

Protective equipment : Wear personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe mist, spray, vapors. Avoid contact with skin and eyes.

For emergency responders:

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate spillage area. Eliminate all ignition sources if safe to do so. Stop leak if safe to do so.

Environmental precautions: Do not allow uncontrolled discharge of product into the environment.

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Methods and materials for containment and cleaning up:

For containment : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel).

Methods for cleaning up: Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Notify authorities if product enters sewers or public waters.

Other information: Dispose of materials or solid residues at an authorized site.

SECTION 7: HANDLING AND STORAGE

Handling: Provide good ventilation in process area to prevent formation of vapor. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Avoid contact with skin and eyes. Do not breathe mist, spray, vapors. Wear personal protective equipment.

Hygiene measures: Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Always wash hands after handling the product. Wash contaminated clothing before reuse.

Storage: Store in a clean and dry place. Keep only in the original container, in a cool well ventilated place. (temperature 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

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

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Engineering control:

Provide adequate ventilation of the work station. Install emergency showers and eye wash close to storage and handling areas.

Individual protection measures:

Hand protection: Impermeable protective gloves

Eye protection: Chemical goggles or safety goggles.

Skin and body protection: If skin contact or contamination of clothing is possible, protective clothing should be worn.

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)	No data available
Specific gravity (Water = 1)	1,012 at 23°C
Vapor pressure (mm Hg)	No data available
% Volatile (Wt%)	No data available
Density (Water = 1)	0,9948 at 21°C
Evaporation rate (Water +1)	No data available
Solubility in water, fats, and organic solvents	Complete
pH	9.0 – 10.5
Flash Point	No data available

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Flammable liquid

Chemical stability: This product is stable under normal storage conditions.

Possibility of hazardous reactions: No dangerous reactions known under normal conditions of use.

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Conditions to avoid: Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

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

Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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:

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.

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SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

Thyme oil:

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: No available

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

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with licensed collector's sorting instructions.

Do not allow uncontrolled discharge of product into the environment.

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.

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.

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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.