SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION

PRODUCT NAME
THYMOL, NF (Crystals)

PRODUCT CODE
0309

SUPPLIER
MEDISCA Inc.
Tel.: 1.800.932.1039 | Fax.: 1.855.850.5855
661 Route 3, Unit C, Plattsburgh, NY, 12901
3955 W. Mesa Vista Ave., Unit A-10, Las Vegas, NV, 89118
6641 N. Belt Line Road, Suite 130, Irving, TX, 75063

MEDISCA Pharmaceutique Inc.
Tel.: 1.800.665.6334 | Fax.: 514.338.1693
4509 Rue Dobrin, St. Laurent, QC, H4R 2L8
21300 Gordon Way, Unit 153/158, Richmond, BC V6W 1M2

MEDISCA Australia PTY LTD
Tel.: 1.300.786.392 | Fax.: 61.2.9700.9047
Unit 7, Heritage Business Park
5-9 Ricketty Street, Mascot, NSW 2020

EMERGENCY PHONE
CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300
NSW Poisons Information Centre: 131 126

USES
Anti-microbial preservative; flavours and perfumes

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION
Acute Toxicity - Oral (Category 4)
Skin Corrosion (Category 1B)
Eye Damage (Category 1)
Acute Aquatic Toxicity (Category 2)

PICTOGRAM

SIGNAL WORD
Danger

HAZARD STATEMENT(S)
Harmful if swallowed
Causes severe skin burns and eye damage
Causes serious eye damage
Toxic to aquatic life

AUSTRALIA-ONLY HAZARDS
Repeated exposure may cause skin dryness or cracking.

PRECAUTIONARY STATEMENT(S)

Prevention
Wash thoroughly after handling; Do not eat, drink or smoke when using this product.
Do not breathe dust or mist. Wear protective gloves, protective clothing, eye protection and face protection.
Avoid release to the environment.

Response
IF SWALLOWED: Immediately call a poison center or medical professional; Rinse mouth. Do NOT induce vomiting.
IF ON SKIN OR HAIR: Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a physician.

Storage
Store locked up.
HMIS CLASSIFICATION

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>Personal Protection</th>
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<tr>
<td>3</td>
<td>1</td>
<td>0</td>
<td>J</td>
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</table>

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**CHEMICAL NAME**: Phenol, 5-methyl -2-(1-methylethyl) -

**BOTANICAL NAME**: Not applicable

**SYNONYM**: Isopropyl cresol; Thymic acid; 5-Methyl-2-isopropylphenol

**CHEMICAL FORMULA**: C₁₀H₁₄O

**CAS NUMBER**: 89-83-8

**ALTERNATE CAS NUMBER**: Not applicable

**MOLECULAR WEIGHT**: 150.2196

**COMPOSITION**

<table>
<thead>
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<th>CHEMICAL NAME</th>
<th>CAS NUMBER</th>
<th>% BY WEIGHT</th>
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<td>THYMOL</td>
<td>89-83-8</td>
<td>100</td>
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as health hazards and hence require reporting in this section.

**NOTES**: Chemical family: Phenol derivative

SECTION 4: FIRST-AID MEASURES

**IN CASE OF EYE CONTACT**: Flush with copious amounts of water for 15 minutes, separating eyelids with fingers. If irritation persists seek medical aid.

**IN CASE OF SKIN CONTACT**: Wash with soap & water for 15 minutes. If irritation persists seek medical aid.

**IF SWALLOWED**: Call a physician. Wash out mouth with water. Do not induce vomiting without medical advice.

**IF INHALED**: Not expected to present a significant hazard under anticipated conditions of normal use.

**SYMPTOMS AND EFFECTS**: Not expected to present a significant hazard under anticipated conditions of normal use.

SECTION 5: FIREFIGHTING MEASURES

**SPECIFIC HAZARDS ARISING FROM THE CHEMICAL**: Not applicable

**FLAMMABLE PROPERTIES**: May be combustible at high temperature

**HAZARDOUS COMBUSTION PRODUCTS**: Under fire conditions, hazardous fumes will be present.

**EXTINGUISHING MEDIA**: Small fire: dry chemical, CO₂ or water spray. Large fire: dry chemical, CO₂, alcohol resistant foam or water spray. Do not get water inside containers.

**PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS**: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6: ACCIDENTAL RELEASE MEASURES
PERSONAL PRECAUTIONS
Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

METHODS & MATERIAL FOR CONTAINMENT
On land, sweep or shovel into suitable containers. Minimize generation of dust.

CLEANUP PROCEDURE
Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Shut off all sources of ignition. Evacuate the area. If necessary, employ water fog to disperse the vapors. Absorb the matter with compatible vermiculite or other absorbing material. Place in a suitable container and retain for disposal. Ventilate and clean the affected area. Do not flush into sewerage system or to drains.

SECTION 7: HANDLING AND STORAGE
PRECAUTIONS FOR SAFE HANDLING
Do not inhale. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling.

STORAGE CONDITIONS
Store in original container, tightly sealed container, protected from direct sunlight, in a dry and well-ventilated area, away from incompatible materials. Store in accordance with local regulations. Eliminate all ignition sources. Separate from oxidizing materials. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Do not prolong exposure to air. Best if stored at temperatures between 8° – 35°C (45° - 95°F). Material is light sensitive. Color variation may occur when exposed to light, moisture or high humidity. Preserve in tight, light-resistant containers.

SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Chemical Name: THYMOL    CAS #: 89-83-8

<table>
<thead>
<tr>
<th></th>
<th>TWA</th>
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<th>REL</th>
<th>IDLH</th>
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</table>

N/L = Not Listed

EXPOSURE GUIDELINES
Consult local authorities for provincial or state exposure limits. Particulates not otherwise regulated, respirable fraction: 5 mg/m3

PERSONAL PROTECTIVE EQUIPMENT
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by WHMIS or OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin. Respirators: Follow WHMIS or OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

SPECIFIC ENGINEERING CONTROLS
Adequate mechanical ventilation. Fumehood, eye wash station, and safety shower.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
### PHYSICAL STATE
Solid

### DESCRIPTION
Colorless, often large, crystals, or white, crystalline powder, having an aromatic, thyme-like odor. Hygroscopic and is affected by light.

### SOLUBILITY
Very slightly soluble in water; freely soluble in alcohol, in chloroform, in ether, and in olive oil; soluble in glacial acetic acid and in fixed and volatile oils.

### ODOR
Aromatic thyme-like odor

### FLAMMABILITY
May be combustible at high temperature

### ODOR THRESHOLD
Not available

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<tr>
<td>BOILING POINT</td>
<td>233 °C, 451.4 °F</td>
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<tr>
<td>FREEZING POINT</td>
<td>(48 - 52)°C, (118.4-125.6)°F</td>
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<tr>
<td>Flash Point</td>
<td>107.00 °C, 224.6 °F (Closed Cup)</td>
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<tr>
<td>SPECIFIC GRAVITY</td>
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<tr>
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<td>EXPLOSIVE LIMIT</td>
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<td>VAPOR PRESSURE</td>
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<td>VISCOSITY</td>
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### SECTION 10: STABILITY AND REACTIVITY

**REACTIVITY**
Not established

**STABILITY**
Stable under recommended storage conditions

**MATERIALS TO AVOID**

**HAZARDOUS DECOMPOSITION PRODUCTS**
Toxic fumes of carbon monoxide, carbon dioxide and other gases may occur

**HAZARDOUS POLYMERIZATION**
Will not occur

**POSSIBILITY OF HAZARDOUS REACTION**
Not established

**CONDITIONS TO AVOID**
Moisture, sunlight and extreme temperatures. Material is light sensitive. Color variation may occur when exposed to light, moisture or high humidity.

### SECTION 11: TOXICOGICAL INFORMATION

**ACUTE TOXICITY**

- Oral: Rat: LD50: (mg/kg): 980
- Dermat: Rabbit LD50: (mg/kg): > 2000
- Inhalation: Rat: LD50: (mg/L/4hr): Not available

**SKIN CORROSION/IRRITATION**
Skin irritancy (OECD 404)  
Result: Corrosive.  
Species: Rabbit
SAFETY DATA SHEET

SERIOUS EYE DAMAGE/EYE IRRITATION

Eyes irritancy test (OECD 405)
Result: Corrosive.
Species: Rabbit

RESPIRATORY OR SKIN SENSITIZATION

Respiratory sensitization: Due to lack of data the classification is not possible.
Skin sensitization: Based on available data, the classification criteria are not met.

GERM CELL MUTAGENICITY

Based on available data, the classification criteria are not met.
Genotoxicity in vitro - Hamster - Embryo
Unscheduled DNA synthesis
Genotoxicity in vitro - Hamster - Embryo
Morphological transformation
Genotoxicity in vitro - Hamster - Embryo
Sister chromatid exchange

CARCINOGENICITY

OSHA
THYMOL is not listed.
NTP
THYMOL is not listed.
IARC
THYMOL is not evaluated.
California
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

ADDITIONAL CARCINOGENICITY INFORMATION

Based on available data, the classification criteria are not met.
5000 ppm Carcinogenicity studies in mice and rats
Result: Not carcinogenic.
Test Duration: 103 weeks

REPRODUCTIVE TOXICITY

Based on available data, the classification criteria are not met.
A review of limited human pregnancy data has not demonstrated an increase in developmental effects.

SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE

Based on available data, the classification criteria are not met.

SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE

Based on available data, the classification criteria are not met.

ASPIRATION HAZARDS

Symptoms related to the physical, chemical, and toxicological characteristics
Permanent eye damage including blindness.
Delayed and immediate effects of exposure
Coma. Cardiac failure. Respiratory failure.

POTENTIAL HEALTH EFFECTS

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Ingestion: Harmful if swallowed. Causes digestive tract burns. When ingested, thymol is less toxic than phenol.
Skin: May be harmful if absorbed through skin. Causes severe skin burns.
Eyes: Causes serious eye damage.

SECTION 12: ECOLOGICAL INFORMATION

TOXICITY

LC50: 96 Hr: Fish: (mg/L): 3.2
IC50: 72 Hr: Algae: (mg/L): Not available
EC50: 48 Hr: Daphnia magna: (mg/L): 3.2

PERSISTENCE AND DEGRADABILITY

Not available

BIOACCUMULATIVE POTENTIAL

LogPow: 3.3

MOBILITY IN SOIL

Water Solubility: 900 mg/L (20°C)
Henry’s Law Constant: 4.83E-07 atm-m3/mole (25°C)
OTHER ADVERSE EFFECTS

Not available

This product is not intended to be released into the environment

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

Dispose of in accordance with federal / local laws and regulations. Avoid release into the environment.

SECTION 14: TRANSPORT INFORMATION

UNITED STATES & CANADA

UN PROPER SHIPPING NAME

Not dangerous good

UN NUMBER

Not applicable

CLASS

Not applicable

PACKING GROUP

Not applicable

AUSTRALIA

UN PROPER SHIPPING NAME

Not dangerous good

UN NUMBER

Not applicable

CLASS

Not applicable

PACKING GROUP

Not applicable

HAZCHEM

Not Applicable

ENVIRONMENTAL HAZARDS

Not available

SPECIAL SHIPPING INFORMATION

Not applicable

SECTION 15: REGULATORY INFORMATION

<table>
<thead>
<tr>
<th>Chemical Name &amp; CAS</th>
<th>CERCLA 40 CFR Part 302.4</th>
<th>SARA (Title III) 40 CFR Part 372.65</th>
<th>EPA 40 CFR Part 355 Appendix A</th>
<th>California Prop 65</th>
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</thead>
<tbody>
<tr>
<td>THYMOL 89-83-8</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
<td>N/L</td>
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</table>

N/L = Not Listed; X = Listed

AUSTRALIAN REGULATIONS

<table>
<thead>
<tr>
<th>Chemical Name &amp; CAS</th>
<th>Poisons and Therapeutic Goods Regulation</th>
<th>Therapeutic Goods Act</th>
<th>Code of Practices - Illicit Drug Precursors</th>
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<tbody>
<tr>
<td>THYMOL 89-83-8</td>
<td>N/L</td>
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</table>

SECTION 16: OTHER INFORMATION

REFERENCES

Available upon request
ABBREVIATIONS AND ACRONYMS

CAS – Chemical Abstract Service; GHS – Global Harmonized System; OSHA PEL – Occupational Safety & Health Administration Permissible Exposure Limits; TWA – Time Weighted Average; HSIS – Hazardous Substances Information System; STEL – Short Term Exposure Limit; AIHA WEEL – American Industrial Hygiene Association Workplace Environment Exposure Levels; LD50 – Lethal Dose, 50%; IARC – International Agency for Research on Cancer; NTP – National Toxicology Program; WHMIS – Workplace Hazardous Materials Information System; SARA – Superfund Amendments and Reauthorization Act; EPA – Environmental Protection Agency; CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act; HMIS – Hazardous Materials Information System; NIOSH – National Institute for Occupational Safety and Health; MSHA - Mine Safety and Health Administration; ACGIH - American Conference of Governmental Industrial Hygienists; IDHL - Immediately Dangerous to Health or Life; TLV – Threshold Limit Value; HSE – Health and Safety Executive; REL - Recommended Exposure Limit

LAST REVISION
03/2016

SUPERSEDES
07/2014

DISCLAIMER

This document was created in accordance with OSHA, Safe Work Australia and WHMIS regulations. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. MEDISCA® shall not be held liable for any damage resulting from handling or from contact with the above product. Recipients of the product must take responsibility for observing existing laws and regulations.