Material Safety Data Sheet
Thymol

MSDS# 23475

Section 1 - Chemical Product and Company Identification

MSDS Name: Thymol
Catalog Numbers: T185-100
Synonyms: Thymic Acid; 2-Isopropyl-5-Methylphenol; 3-Hydroxy-P-Cymene; 6-Isopropyl-C-Cresol; 5-Methyl-2-(1-Methylethyl)Phenol; M -Thymol; 3-H

Company Identification:
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 89-83-8
Chemical Name: Thymol
%: 99-100
EINECS#: 201-944-8

Hazard Symbols: C N
Risk Phrases: 22 34 51/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Harmful if swallowed. Causes burns by all exposure routes. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Target Organs: Kidneys, central nervous system, liver, spleen.

Potential Health Effects
Eye: Causes eye burns.
Skin: Causes skin burns.
Ingestion: Harmful if swallowed. Causes gastrointestinal tract burns. Ingestion may cause convulsions, seizures and possible coma. May cause tremors, weakness, muscular spasms and ataxia (failure of muscular coordination).
Inhalation: Causes chemical burns to the respiratory tract. May cause respiratory difficulty and coughing.
Chronic: Kidney, lung and central nervous system effects may also occur. Prolonged exposure may cause systemic effects. May cause adverse reproductive effects.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Ingestion: Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dangerous fire hazard in the form of dust when exposed to heat or flame.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature: Not available.

Flash Point: 102deg C (215.60deg F)

Explosion Limits:

Lower: Not available

Upper: Not available

NFPA Rating: health: 3; flammability: 1; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Do not get on skin or in eyes. Do not ingest or inhale. Use only in a chemical fume hood.

Storage: Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

Section 8 - Exposure Controls, Personal Protection

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA – Final PELs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thymol</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: Thymol: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: colorless or white

Odor: pungent odor - weak aromatic odor

pH: Solution is neutral.
Vapor Pressure: 1 mm Hg
Vapor Density: 5.2
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: 232 deg C (449.60°F)
Freezing/Melting Point: 49 - 51 deg C
Decomposition Temperature: Not available
Solubility in water: Soluble
Specific Gravity/Density: 0.969
Molecular Formula: C10H14O
Molecular Weight: 150.24

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Incompatible materials, dust generation, excess heat.
Incompatibilities with Other Materials: Strong oxidizing agents, strong bases.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 89-83-8: XP2275000
RTECS: CAS#89-83-8: Oral, mouse: LD50 = 640 mg/kg;
LD50/LC50: Oral, rat: LD50 = 980 mg/kg;
Carcinogenicity: Thymol - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: Do not empty into drains.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Thymol)
Hazard Class: 8
UN Number: UN3261
Packing Group: III
Canada TDG
Shipping Name: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (Thymol)
Hazard Class: 8
UN Number: UN3261
Packing Group: III

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols: C N
Risk Phrases:
  R 22 Harmful if swallowed.
  R 34 Causes burns.
  R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases:
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 28 After contact with skin, wash immediately with...
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 89-83-8: 2

Canada

CAS# 89-83-8 is listed on Canada's DSL List
Canadian WHMIS Classifications: E, D2A, D1B, D2B
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.
CAS# 89-83-8 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 89-83-8 is listed on the TSCA
Inventory.

Section 16 - Other Information
MSDS Creation Date: 6/24/1999
Revision #12 Date 7/20/2009

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantibility or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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