Material Safety Data Sheet
Thymol Blue TS

Section 1 - Chemical Product and Company Identification

MSDS Name:
Thymol Blue TS
Catalog Numbers:
LC26017
Synonyms:
None
Company Identification:
LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238
Company Phone Number:
(412) 826-5230
Emergency Phone Number:
(800) 424-9300
CHEMTREC Phone Number:
(800) 424-9300

Section 2 - Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name:</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>76-61-9</td>
<td>Thymol Blue, free acid</td>
<td>0.1</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethyl alcohol</td>
<td>balance</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Emergency Overview

Appearance: Clear, red liquid.

Caution! Flammable liquid and vapor. Warning! May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Flash Point: > 73°F.

Target Organs: Eyes, skin, respiratory system, central nervous system, liver, blood and reproductive system.

Potential Health Effects

Eye:
May cause eye irritation, stinging, burning sensation, and lacrimation.

Skin:
May cause irritation and defatting.

Ingestion:
Ingestion can result in toxic intoxication, poisoning, headache, nausea, diarrhea and fever. Large doses can cause hemolysis, hemoglobinuria, hyperglycemia, glycosuria, renal failure, convulsions, narcosis, and paralysis.
Material Safety Data Sheet
Thymol Blue TS

Inhalation:
May cause central nervous system effects including vertigo, anxiety, depression, muscle
incoordination, emotional instability, respiratory irritation, dizziness, weakness, fatigue, nausea,
headache, unconsciousness, asphyxiation (effects of narcotic). May cause irritation and dehydration
of mucous membranes.

Chronic:
Repeated or excessive exposure may result in respiratory irritation, cough, headache, dermatitis,
conjunctivitis, with possible liver and kidney damage, weight loss, neurological disorders (tremors,
amnesia, myocardial and circulatory failure).

Section 4 - First Aid Measures

Eyes:
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids
until no evidence of chemical remains. Get medical aid at once.

Skin:
Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while
removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:
Give conscious victim 2-4 cupfuls of milk or water. Get medical aid at once. Give oxygen if
respiration is depressed. Induce vomiting, keeping head lower than hips to prevent aspiration into
lungs.

Inhalation:
Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to
fresh air.

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. Vapors are heavier than air and may travel
considerable distance and flash back from source of ignition. Move container if possible; avoid
breathing vapors or dust.

Extinguishing Media:
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:
363°C

Flash Point:
18.5°C

NFPA Rating:
CAS # 76-61-9: health: 1; flammability: 1; instability: 0.
CAS # 64-17-5: health: 2; flammability: 3; instability: 0

Explosion Limits:
Lower: 3.3%     Upper: 19%
Section 6 - Accidental Release Measures

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

Spills/Leaks:
Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Keep out of sewers/drains.

Section 7 - Handling and Storage

Handling:
Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:
Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Provide local exhaust or general dilution ventilation.

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thymol blue</td>
<td>None listed</td>
<td>None listed</td>
<td>None listed</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>1000 ppm TWA</td>
<td>1000 ppm TWA; 1900 mg/m³ TWA</td>
<td>1000 ppm TWA; 1900 mg/m³ TWA</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
Ethyl alcohol: 1000 ppm TWA; 1900 mg/m³ TWA

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.
Material Safety Data Sheet
Thymol Blue TS

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Color: Reddish
Odor: Alcohol-like
pH: Neutral
Vapor Pressure: 5.53 kPa at 20 °C
Vapor Density: 1.54 (Air = 1)
Evaporation Rate: < ether
Viscosity: 1.2 cP/s at 20 °C
Boiling Point: 78.5 °C
Freezing/Melting Point: -117.3 °C
Decomposition Temperature: No information found.
Solubility in water: Soluble.
Specific Gravity/Density: 0.79
Molecular Formula: Not applicable.
Molecular Weight: Not applicable.

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
Incompatible materials, excess heat.

Incompatibilities with Other Materials:
Strong oxidizing agents, alkali metals, nitric acid, perchloric acid, sulfuric acid, chlorine, hypochlorites, hydrochloric acid.

Hazardous Decomposition Products:
Oxides of carbon, formaldehyde, oxides of sulfur.

Hazardous Polymerization:
Has not been reported

Section 11 - Toxicological Information

RTECS:
CAS# 76-61-9: XP2575000.
CAS# 64-17-5: KQ6300000.

LD50/LC50:
CAS# 76-61-9:
Not available.
CAS# 64-17-5:
Inhalation, mouse: LC50 =39 gm/m3/4H
Inhalation, rat: LC50 =20000 ppm/10H
Oral, mouse: LD50 = 3450 mg/kg
Oral, rabbit: LD50 = 6300 mg/kg
Oral, rat: LD50 = 7060 mg/kg.

Carcinogenicity:
CAS# 76-61-9: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
Material Safety Data Sheet  
Thymol Blue TS  

CAS# 64-17-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:**
Ethanol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Prenatal exposure to ethanol is associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome".

**Teratogenicity:**
Oral, Human - woman: TDLo = 41 gm/kg (female 41 week(s) after conception) Effects on Newborn - Apgar score (human only) and Effects on Newborn - other neonatal measures or effects and Effects on Newborn - drug dependence.

**Reproductive:**
Intrauterine, Human - woman: TDLo = 200 mg/kg (female 5 day(s) pre-mating) Fertility - female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated).

**Mutagenicity:**

**Neurotoxicity:**
No information found.

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### Section 12 - Ecological Information

**Ecotoxicity:**
Fish: Rainbow trout: LC50 = 12900-15300 mg/L; 96 Hr; Flow-through @ 24-24.3°C. Fish: Rainbow trout: LC50 = 11200 mg/L; 24 Hr; Fingerling (Unspecified). Bacteria: Phytobacterium phosphoreum: EC50 = 34900 mg/L; 5-30 min; Microtox test. When spilled on land it is apt to volatilize, biodegrade, and leach into the ground water, but no data on the rates of these processes could be found. Its fate in ground water is unknown. When released into water it will volatilize and probably biodegrade. It would not be expected to adsorb to sediment or bioconcentrate in fish.

**Environmental:**
When released to the atmosphere it will photodegrade in hours (polluted urban atmosphere) to an estimated range of 4 to 6 days in less polluted areas. Rainout should be significant.

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### Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

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### Section 14 - Transport Information

**US DOT**
**Shipping Name:** Ethanol solution  
**Hazard Class:** 3  
**UN Number:** UN1170  
**Packing Group:** PG II
**Section 15 - Regulatory Information**

**US Federal**

**TSCA:**
- CAS# 76-61-9 is listed on the TSCA Inventory.
- CAS# 64-17-5 is listed on the TSCA Inventory.

**SARA Reportable Quantities (RQ):**
- None of the components are on this list.

**CERCLA/SARA Section 313:**
- None of the components are on this list.

**OSHA - Highly Hazardous:**
- None of the components are on this list.

**US State**

**State Right to Know:**
- Ethyl alcohol can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

**California Regulations:**
- **WARNING:** This product contains Ethyl alcohol, a chemical known to the state of California to cause birth defects or other reproductive harm.

**European/International Regulations**

**Canadian DSL/NDSL:**
- CAS# 76-61-9 is listed on Canada's DSL List.
- CAS# 64-17-5 is listed on Canada's DSL List.

**Canada Ingredient Disclosure List:**
- CAS# 76-61-9 is not listed on Canada's Ingredient Disclosure List.
- CAS# 64-17-5 is listed on Canada's Ingredient Disclosure List.

**Section 16 - Other Information**

MSDS Creation Date: December 21, 2007
Revision Date: October 21, 2009

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