1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY INFORMATION

Catalog Number: 882475

Product name: Ecolite(+)™ Liquid Scintillation Fluid

Supplier:
MP Biomedicals, LLC
29525 Fountain Parkway
Solon, OH 44139
tel: 440-337-1200

Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

2. COMPOSITION/INFORMATION ON INGREDIENTS

This liquid scintillation cocktail is classified as non-hazardous, in accordance with EPA regulations: Resources Conservation and Recovery Act, CFR Title 40, Part 261.20 to 261.24

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Weight %</th>
<th>ACGIH Exposure Limits:</th>
<th>OSHA Exposure Limits:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear Alkylbenzene</td>
<td>68648-87-3</td>
<td>30-70%</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Non-ionic Surfactants</td>
<td>9016-45-9</td>
<td>0-40%</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Phenylxylylethane</td>
<td>6196-95-8</td>
<td>5-50%</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>p-bis-(o-METHYLSTRYL) BENZENE</td>
<td>13280-61-0</td>
<td>&lt;1%</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>2,5-DIPHENYLOXAZOLE</td>
<td>92-71-7</td>
<td>&lt;1%</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: May cause skin irritation and/or dermatitis

Principle routes of exposure: Skin
Inhalation: May cause irritation of respiratory tract
Ingestion: May be harmful if swallowed.
Skin contact: May cause allergic skin reaction
Eye contact: Avoid contact with eyes

Statements of hazard MAY CAUSE ALLERGIC SKIN REACTION.
Statement of Spill or Leak - ANSI Label Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

4. FIRST AID MEASURES

General advice: In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Inhalation: Move to fresh air. Call a physician immediately.
### 5. FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable extinguishing media</td>
<td>Use dry chemical, CO2, water spray or &quot;alcohol&quot; foam</td>
</tr>
<tr>
<td>Specific hazards</td>
<td>Burning produces irritant fumes.</td>
</tr>
<tr>
<td>Unusual hazards</td>
<td>None known</td>
</tr>
<tr>
<td>Special protective equipment for firefighters</td>
<td>As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear</td>
</tr>
<tr>
<td>Specific methods</td>
<td>Water mist may be used to cool closed containers.</td>
</tr>
<tr>
<td>Flash point</td>
<td>155°C</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>NFPA rating</td>
<td></td>
</tr>
<tr>
<td>NFPA Health</td>
<td>1</td>
</tr>
<tr>
<td>NFPA Flammability</td>
<td>2</td>
</tr>
<tr>
<td>NFPA Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

### 6. ACCIDENTAL RELEASE MEASURES

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal precautions</td>
<td>Use personal protective equipment.</td>
</tr>
<tr>
<td>Environmental precautions</td>
<td>Small spills - No special environmental precautions required.</td>
</tr>
<tr>
<td></td>
<td>Large spills - Do not flush into surface water or sanitary sewer system.</td>
</tr>
<tr>
<td>Methods for cleaning up</td>
<td>Sweep up and shovel into suitable containers for disposal.</td>
</tr>
</tbody>
</table>

### 7. HANDLING AND STORAGE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage</td>
<td>ROOM TEMPERATURE</td>
</tr>
<tr>
<td>Handling</td>
<td>Use only in area provided with appropriate exhaust ventilation.</td>
</tr>
<tr>
<td>Safe handling advice</td>
<td>Wear personal protective equipment.</td>
</tr>
<tr>
<td>Incompatible products</td>
<td>Oxidising and spontaneously flammable products</td>
</tr>
</tbody>
</table>

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering measures</td>
<td>Ensure adequate ventilation.</td>
</tr>
<tr>
<td>PERSONAL PROTECTIVE EQUIPMENT</td>
<td></td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>Breathing apparatus only if aerosol or dust is formed.</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Pvc or other plastic material gloves</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Usual safety precautions while handling the product will provide adequate protection against this potential effect.</td>
</tr>
<tr>
<td>Eye protection</td>
<td>Safety glasses with side-shields</td>
</tr>
<tr>
<td>Hygiene measures</td>
<td>Handle in accordance with good industrial hygiene and safety practice.</td>
</tr>
</tbody>
</table>
9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Clear and colorless; aromatic odor
Physical state: Liquid
Formula: Not applicable
Melting point/range: No data available at this time.
Boiling point/range: 300°C
Density: 0.9 - 1.0 g/ml @ 20°C
Vapor pressure: < 0.1 mm Hg at 20°C
Evaporation rate: < 1.0
Vapor density: ~7
Solubility (in water): Dispersible
Flash point: 155°C
Autoignition temperature: Not determined

10. STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.
Polymerization: None under normal processing.
Hazardous decomposition products: Decomposes to H2O and CO2, The cocktail ultimately decomposes to water and carbon dioxide.
Materials to avoid: Strong oxidising agents
Conditions to avoid: Exposure to air or moisture over prolonged periods.

11. TOXICOLOGICAL INFORMATION

Product Information
Acute toxicity
Components RTECS Number: Selected LD50s and LC50s
Linear Alkylbenzene Not Available Not Determined
Non-ionic Surfactants Not Available MD0900000:Glycols, polyethylene, mono(nonylphenyl) ether (10/1/97)
Phenylxylylethane Not Available Not Determined
p-bis-(o-METHYLSTYRYL) Not Available Not Determined
BENZENE 2,5-DIPHENYLOXAZOLE RP6825000 Not Determined

Chronic toxicity: Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.
Local effects: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Specific effects: May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.
Primary irritation: No data is available on the product itself.
Carcinogenic effects: No data is available on the product itself.
Mutagenic effects: No data is available on the product itself.
Reproductive toxicity: No data is available on the product itself.

12. ECOLOGICAL INFORMATION

Mobility: No data available
Bioaccumulation: No data available
Ecotoxicity effects: No data available
Catalog Number: 882475 Product name: Ecolite(+)™ Liquid Scintillation Fluid
Aquatic toxicity:

May cause long-term adverse effects in the aquatic environment.

### Components

**U.S. DOT - Appendix B - Marine Pollutant**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**U.S. DOT - Appendix B - Severe Marine Pollutants**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**United Kingdom - The Red List:**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**Germany VCI (WGK)**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: 2
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**World Health Organization (WHO) - Drinking Water Ecotoxicity - Fish Species Data**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**Ecotoxicity - Freshwater Algae Data**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**Ecotoxicity - Microtox Data**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**Ecotoxicity - Water Flea Data**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**EPA - ATSDR Priority List**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**EPA - HPV Challenge Program Chemical List**
- indicator 2; Not sponsored
- indicator 2,3; Not sponsored
- indicator 0; Not sponsored
- Not Listed
- Not Listed
- Not Listed

**California - Priority Toxic Pollutants**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

**California - Priority Toxic Pollutants**
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

### 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:**
Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

**Contaminated packaging:**
Do not re-use empty containers
14. TRANSPORT INFORMATION

UN/Id No: Not regulated

DOT:
Proper shipping name: Not Regulated

Components
- Linear Alkylbenzene: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

TDG (Canada):
WHMIS hazard class: Non-controlled

IMDG/IMO

IMDG - Hazard Classifications: Not Applicable

Components
- Linear Alkylbenzene: U.S. DOT - Appendix A Table 1 - Reportable Quantities: Not Listed
- Non-ionic Surfactants: Not Listed
- Phenylxylylethane: Not Listed
- p-bis-(o-METHYLSTYRYL) BENZENE: Not Listed
- 2,5-DIPHENYLOXAZOLE: Not Listed

IMO-labels:

15. REGULATORY INFORMATION

International Inventories

Components
- Linear Alkylbenzene
- Non-ionic Surfactants
- Phenylxylylethane
- p-bis-(o-METHYLSTYRYL) BENZENE
- 2,5-DIPHENYLOXAZOLE

Inventory - United States TSCA - Sect. 8(b) Present
Canada DSL Inventory List - Present
Australia (AICS): Present
Inventory - China: Present
EU EINECS List - 272-008-4
Korean KECL: KE-02157
Philippines PICCS: Present

Catalog Number: 882475
Product name: Ecolite(+)™ Liquid Scintillation Fluid
Components

Phenylxylylethane

**U.S. regulations:**

<table>
<thead>
<tr>
<th>Components</th>
<th>California Proposition 65</th>
<th>Massachusetts Right to Know List</th>
<th>New Jersey Right to Know List</th>
<th>Pennsylvania Right to Know List</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear Alkylbenzene</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
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<tr>
<td>Non-ionic Surfactants</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
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</tr>
<tr>
<td>Phenylxylylethane</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
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<tr>
<td>p-bis-(o-METHYLSTYRYL) BENZENE</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
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<td>2,5-DIPHENYLOXAZOLE</td>
<td>Not Listed</td>
<td>Not Listed</td>
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</tr>
</tbody>
</table>

Components

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Linear Alkylbenzene</td>
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<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Non-ionic Surfactants</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Phenylxylylethane</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>p-bis-(o-METHYLSTYRYL) BENZENE</td>
<td>Not Listed</td>
<td>Not Listed</td>
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<td>Not Listed</td>
</tr>
<tr>
<td>2,5-DIPHENYLOXAZOLE</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Components</td>
<td>SARA 313 Emission reporting/Toxic Release of Chemicals</td>
<td>CERCLA/SARA - Section 302 Extremely Haz</td>
<td>NTP:</td>
<td>IARC:</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>Linear Alkylbenzene</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>None</td>
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</tr>
<tr>
<td>Non-ionic Surfactants</td>
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<td>Not Listed</td>
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</tr>
<tr>
<td>Phenylxylethane</td>
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<td>Not Listed</td>
<td>None</td>
<td>None</td>
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<td>p-bis-(o-METHYLSTYRYL) BENZENE</td>
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<td>Not Listed</td>
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<tr>
<td>2,5-DIPHENYLOXAZOLE</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**SARA 313 Notification:**
The above is your notification as to the SARA 313 listing for this product(s) pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

If you are unsure if you are subject to the reporting requirements of Section 313, or need more information, please call the EPA Emergency Planning and Community Right-To-Know Information Hotline: (800) 535-0202 or (202) 479-2499 (in Washington, DC or Alaska).

**State Notification:**
The above information is your notice as to the Right-to-Know listings of the stated product(s). Individual states will list chemicals for a variety of reasons including, but not limited to, the compounds toxicity; carcinogenic, tumorigenic and/or reproductive hazards; and the compounds environmental impact if accidentally released.

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**16. OTHER INFORMATION**

**Prepared by:** Health & Safety

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**End of Safety Data Sheet**