Material Safety Data Sheet
Scintiverse TM -LC Cocktail

MSDS# 88033

Section 1 - Chemical Product and Company Identification

MSDS Name: Scintiverse TM -LC Cocktail
Catalog Numbers: SX17-4, SX17-500
Synonyms: none

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

Risk Phrases: 11 36 67

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>%</th>
<th>EINECS#</th>
<th>Hazard Symbols</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>2-Propanol</td>
<td>&lt;20</td>
<td>200-661-7</td>
<td>F XI</td>
</tr>
</tbody>
</table>

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<tbody>
<tr>
<td>92-71-7</td>
<td>2,5-diphenyl-oxazole</td>
<td>&lt;0.1</td>
<td>202-181-3</td>
<td></td>
</tr>
</tbody>
</table>

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</tr>
</thead>
<tbody>
<tr>
<td>95-63-6</td>
<td>1,2,4-Trimethylbenzene</td>
<td>&lt;80</td>
<td>202-436-9</td>
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</tr>
</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>1806-34-4</td>
<td>POPOP</td>
<td>&lt;0.1</td>
<td>217-304-6</td>
<td></td>
</tr>
</tbody>
</table>
Section 3 - Hazards Identification

EMERGENCY OVERVIEW


Potential Health Effects

Eye:
Causes eye irritation. Causes redness and pain.

Skin:
Causes skin irritation. May be absorbed through the skin. Causes redness and pain.
May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause allergic respiratory reaction. May cause drowsiness, unconsciousness, and central nervous system depression. Vapors may cause dizziness or suffocation. Causes irritation of the mucous membrane and upper respiratory tract. Prolonged or repeated skin contact may cause defatting and dermatitis. Repeated inhalation may cause chronic bronchitis. May cause anemia and other blood cell abnormalities. Prolonged exposure may produce a narcotic effect. Prolonged or repeated exposure may cause nausea, dizziness, and headache. May cause kidney damage.

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.

Skin:
Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:
Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

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 may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Containers may explode in the heat of a fire. Flammable liquid and vapor. May form explosive peroxides. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

Extinguishing Media:
Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition:
**Temperature:** 514 deg C (957.20 deg F)

**Flash Point:** 48.88 deg C (119.98 deg F)

**Explosion Limits:**
- Lower: 0.90 vol %
- Upper: 6.4 vol %

**NFPA Rating:**
- Health: 2
- Flammability: 2
- Instability: 0

**Section 6 - Accidental Release Measures**

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

**Spills/Leaks:**
Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

**Section 7 - Handling and Storage**

**Handling:**
Wash thoroughly after handling. Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Take precautionary measures against static discharges. Keep away from heat, sparks and flame. Avoid contact with clothing and other combustible materials. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage:**
Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-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>2-Propanol</td>
<td>200 ppm; 400 ppm</td>
<td>400 ppm TWA; 980 mg/m³ TWA</td>
<td>400 ppm TWA; 980 mg/m³ TWA</td>
</tr>
<tr>
<td>2,5-diphenyl-oxazole</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>25 ppm TWA</td>
<td>25 ppm TWA; 125 mg/m³ TWA</td>
<td>none listed</td>
</tr>
<tr>
<td>POPOP</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>Linear alcohol ethoxylated (C12-15)</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs: 2-Propanol: 400 ppm TWA; 980 mg/m³ TWA 2,5-diphenyl-oxazole: None listed 1,2,4-Trimethylbenzene: 25 ppm TWA; 125 mg/m³ TWA (listed under Trimethyl benzene) POPOP: None listed Linear alcohol ethoxylated (C12-15): None listed

**Engineering Controls:**
Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Exposure Limits**

**Personal Protective Equipment**

**Eyes:** Wear chemical splash goggles.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.
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: Liquid
Color: light blue
Odor: none reported
pH: Not available
Vapor Pressure: Not available
Vapor Density: >1
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: Not available
Freezing/Melting Point: Not available
Decomposition Temperature: Not available
Solubility in water: Soluble in water.
Specific Gravity/Density: 0.9-0.93
Molecular Formula: Mixture
Molecular Weight: 0

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. This material may be sensitive to peroxide formation.
Conditions to Avoid: Incompatible materials, ignition sources, excess heat, combustible materials, strong oxidants.
Incompatibilities with Other Materials Strong oxidizing agents, nitric acid, Isopropanol is susceptible to autoxidation and therefore should be classified as peroxidizable..
Hazardous Decomposition Products Carbon monoxide, carbon monoxide, carbon dioxide.
Hazardous Polymerization Has not been reported.

Section 11 - Toxicological Information

CAS# 67-63-0: NT8050000
CAS# 92-71-7: RP6825000
RTECS#: CAS# 95-63-6: DC3325000
CAS# 1806-34-4: None listed
CAS# 68131-39-5: AZ0882221
RTECS:
CAS# 67-63-0: Draize test, rabbit, eye: 100 mg Severe;
Draize test, rabbit, eye: 10 mg Moderate;
Draize test, rabbit, skin: 500 mg Mild;
Inhalation, mouse: LC50 = 53000 mg/m3;
Inhalation, rat: LC50 = 16000 ppm/8H;
Inhalation, rat: LC50 = 72600 mg/m3;
Oral, mouse: LD50 = 3600 mg/kg;
Oral, mouse: LD50 = 3600 mg/kg;
Oral, rabbit: LD50 = 6410 mg/kg;
Oral, rat: LD50 = 5045 mg/kg;
Oral, rat: LD50 = 5000 mg/kg;
Skin, rabbit: LD50 = 12800 mg/kg;

LD50/LC50:

RTECS:
CAS# 92-71-7:

RTECS:
CAS# 95-63-6: Inhalation, rat: LC50 = 18000 mg/m3/4H;
Oral, mouse: LD50 = 69000 mg/kg;
Oral, rat: LD50 = 5 gm/kg;

RTECS:
CAS# 1806-34-4:
RTECS:
CAS# 68131-39-5: Oral, rat: LD50 = 2 gm/kg;

2-Propanol - IARC: Group 3 (not classifiable)
2,5-diphenyl-oxazole - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
1,2,4-Trimethylbenzene - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
POPOP - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Linear alcohol ethoxylated (C12-15) - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other:
See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12 - Ecological Information
Ecotoxicity: Fish: Fathead Minnow: LC50 = 77.2 mg/L; 96 Hr; CAS# 95-63-6: Flow-through at 25 C (pH 7.24)

Section 13 - Disposal Considerations
Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information
US DOT
Shipping Name: FLAMMABLE LIQUIDS, N.O.S.
Hazard Class: 3
UN Number: UN1993
Packing Group: III
Canada TDG
Shipping Name: FLAMMABLE LIQUIDS, N.O.S. (1,2,4-Trimethylbenzene)
Hazard Class: 3
UN Number: UN1993
Packing Group: III

Section 15 - Regulatory Information
European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols: XN N
Risk Phrases:
R 10 Flammable.
R 20 Harmful by inhalation.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety Phrases:
S 9 Keep container in a well-ventilated place.
S 16 Keep away from sources of ignition - No smoking.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 33 Take precautionary measures against static discharges.
S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)
CAS# 67-63-0: 1
CAS# 92-71-7: Not available
CAS# 95-63-6: 3
CAS# 1806-34-4: Not available
Canada

CAS# 67-63-0 is listed on Canada's DSL List
CAS# 92-71-7 is listed on Canada's DSL List
CAS# 95-63-6 is listed on Canada's DSL List
CAS# 1806-34-4 is listed on Canada's DSL List
CAS# 68131-39-5 is listed on Canada's DSL List

Canadian WHMIS Classifications: B3, 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# 67-63-0 is listed on Canada's Ingredient Disclosure List
CAS# 92-71-7 is not listed on Canada's Ingredient Disclosure List.
CAS# 95-63-6 is listed on Canada's Ingredient Disclosure List
CAS# 1806-34-4 is not listed on Canada's Ingredient Disclosure List.
CAS# 68131-39-5 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 67-63-0 is listed on the TSCA Inventory.
CAS# 92-71-7 is listed on the TSCA Inventory.
CAS# 95-63-6 is listed on the TSCA Inventory.
CAS# 1806-34-4 is listed on the TSCA Inventory.
CAS# 68131-39-5 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 5/19/1999
Revision #6 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.