SECTION 1: Identification of the substance/mixture and of the company/undertaking

Identification of the substance or mixture

Product code: L7528
Product name: LysoTracker® Red DND-99

Company/undertaking identification

Life Technologies
5791 Van Allen Way
PO Box 6482
Carlsbad, CA 92008
+1 760 603 7200

Life Technologies
5250 Mainway Drive
Burlington, ONT
CANADA L7L 6A4
800/263-6236

24 hour Emergency Response:
866-536-0631
301-431-8585
Outside of the U.S. +1-301-431-8585

Country specific Emergency Number (if available):
CHEMTREC Brazil (Rio De Janeiro) +(55)-219581449 (português)

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

SECTION 2: Hazards identification

GHS - Classification

Signal Word
WARNING

Health hazards
Not Hazardous

Physical hazards

<table>
<thead>
<tr>
<th>GHS Physical Hazard 1</th>
<th>Flammable liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS Physical Hazard Category Number</td>
<td>Category 4</td>
</tr>
</tbody>
</table>

Hazard Statements
H227 - Combustible liquid

Precautionary Statements
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P370 + P378 - In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction
Principle Routes of Exposure

Potential Health Effects

- **eyes**: Mild eye irritation.
- **Skin**: Mild skin irritation. Components of the product may be absorbed into the body through the skin.

**Specific effects**

- **Carcinogenic effects**: None.
- **Mutagenic effects**: None.
- **Reproductive toxicity**: None.
- **Sensitization**: No sensitization responses were observed.

**Target Organ Effects**: No known effects under normal use conditions.

**SECTION 3: Composition/information on ingredients**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>EINECS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>dimethylsulfoxide</td>
<td>67-68-5</td>
<td>200-664-3</td>
<td>95-100</td>
</tr>
</tbody>
</table>

We recommend handling all chemicals with caution.

**SECTION 4: First aid measures**

- **Skin contact**: Wash off immediately with plenty of water. If symptoms occur, obtain medical advice.
- **Eye contact**: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician if necessary.
- **Ingestion**: Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.
- **Inhalation**: Remove to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.

**Most important symptoms and effects, both acute and delayed**

H227 - Combustible liquid

**Notes to Physician**: Treat symptomatically.

**SECTION 5: Firefighting measures**

- **Suitable extinguishing media**: Water spray. Carbon dioxide (CO2). Foam. Dry chemical.
- **Special protective equipment for firefighters**: Wear self-contained breathing apparatus and protective suit.
- **Specific hazards arising from the chemical**: Not known

**SECTION 6: Accidental release measures**

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Revision date: 20-Aug-2015

Product code: L7528

Product name: LysoTracker® Red DND-99

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**Personal precautions**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Use personal protection equipment.

**Methods for cleaning up**

Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so.

See Section 12 for more information.

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### SECTION 7: Handling and storage

**Handling**

Avoid contact with skin and eyes. Always wear recommended Personal Protective Equipment.

**Storage**

Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Do not store near combustible materials. Keep in properly labeled containers.

---

### SECTION 8: Exposure controls/personal protection

#### Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL</th>
<th>OSHA PEL (Ceiling)</th>
<th>ACGIH OEL (TWA)</th>
<th>ACGIH OEL (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dimethylsulfoxide</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**Engineering measures**

Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

- **Respiratory protection**
  In case of insufficient ventilation, wear suitable respiratory equipment.

- **Hand protection**
  Impervious butyl rubber gloves. Nitrile gloves are not recommended. Some brands of Nitrile gloves have breakthrough times of five minutes.

- **Eye protection**
  Wear safety glasses with side shields (or goggles).

- **Skin and Body Protection**
  Lightweight protective clothing.

- **Hygiene measures**
  Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls**

Prevent product from entering drains.

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### SECTION 9: Physical and chemical properties

#### General information

- **Form** Liquid
- **Appearance** No information available
- **Odor** No data available
- **Odor Threshold** No data available
- **Boiling point / boiling range** °C 188 - 190  °F 370 - 374
- **Melting point / melting range** °C 18 - 19  °F 64.4 - 66.2
SECTION 10: Stability and reactivity

Stability
Stable under normal conditions.

Materials to avoid
Strong acids. Strong oxidizing agents.

Possibility of hazardous reactions
Hazardous reaction has not been reported

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. Sulphur oxides. Carbon oxides.

polymerization
Hazardous polymerization does not occur.

Conditions to avoid
None under normal processing.

SECTION 11: Toxicological information

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 (oral,rat/mouse)</th>
<th>LD50 (dermal,rat/rabbit)</th>
<th>LC50 (inhalation,rat/mouse)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dimethylsulfoxide</td>
<td>14500 mg/kg Oral LD50</td>
<td>&gt;40000 mg/kg bw</td>
<td>&gt;5000 mg/l</td>
</tr>
</tbody>
</table>

Principle Routes of Exposure

Potential Health Effects

eyes
Mild eye irritation.

Skin
Mild skin irritation. Components of the product may be absorbed into the body through the skin.

inhalation
No information available.

Ingestion
No information available.

Carcinogenic effects
None.

Mutagenic effects
None.

Reproductive toxicity
None.

Sensitization
No sensitization responses were observed.
**SECTION 12: Ecological information**

**Ecotoxicity**
Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

**Mobility**
completely soluble.

**Biodegradation**
Inherently biodegradable.

**Bioaccumulation**
Material does not bioaccumulate.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Freshwater Algae Data</th>
<th>Water Flea Data</th>
<th>Freshwater Fish Species Data</th>
<th>Microtox Data</th>
<th>log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>dimethylsulfoxide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>logPow-2.03</td>
</tr>
</tbody>
</table>

**SECTION 13: Disposal considerations**

Dispose of contents/containers in accordance with local regulations.

**SECTION 14: Transport information**

**IATA**

<table>
<thead>
<tr>
<th>Proper Shipping Name</th>
<th>No dangerous good in sense of these transport regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Class</td>
<td>None</td>
</tr>
<tr>
<td>Subsidiary class</td>
<td>None</td>
</tr>
<tr>
<td>Packing group</td>
<td>None</td>
</tr>
<tr>
<td>UN-No</td>
<td>none</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>None</td>
</tr>
</tbody>
</table>

**Revision date** 20-Aug-2015
**Product code** L7528
**Product name** LysoTracker® Red DND-99

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SECTION 15: Regulatory information

<table>
<thead>
<tr>
<th>Component</th>
<th>US TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>dimethylsulfoxide</td>
<td>Listed</td>
</tr>
<tr>
<td>67-68-5 ( 95-100 )</td>
<td></td>
</tr>
</tbody>
</table>

US Federal Regulations

SARA 313
This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain HAPs.

US State Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Massachusetts - RTK</th>
<th>New Jersey - RTK</th>
<th>Pennsylvania - RTK</th>
<th>Illinois - RTK</th>
<th>Rhode Island - RTK</th>
</tr>
</thead>
<tbody>
<tr>
<td>dimethylsulfoxide</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

California Proposition 65
This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class
B3 - Combustible liquid

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

Reason for revision  SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet