**SAFETY DATA SHEET: U.S.**

**IncuCyte™ Cytotox Reagents**

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### IDENTIFICATION

<table>
<thead>
<tr>
<th>Product code:</th>
<th>Cat. No. 4633</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product name:</td>
<td>IncuCyte™ Cytotox Green Reagent</td>
</tr>
<tr>
<td>Unit size:</td>
<td>5 µL</td>
</tr>
<tr>
<td>Manufacturer/supplier:</td>
<td>Essen BioScience Inc. 300 West Morgan Road Ann Arbor MI 48108 USA</td>
</tr>
</tbody>
</table>

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

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### HAZARD(S) IDENTIFICATION

Includes all hazards regarding the chemical; required label elements.

**GHS - Classification**

- **Signal word:** WARNING
- **Health hazard:** Not hazardous
- **Physical hazards:**
  - GHS Physical Hazard 1: Flammable liquids
  - GHS Physical Hazard Category Number: Category 4

**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.

**HMIS:**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

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### COMPOSITION/INFORMATION ON INGREDIENTS

Includes information on chemical ingredients; trade secret claims.

<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>
<tr>
<td>IncuCyte™ Cytotox Green Reagent</td>
<td>143413-85-8</td>
<td></td>
<td>0.1—1.0</td>
</tr>
</tbody>
</table>

Revision date: January 16, 2018
Product code: 4633
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: | Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration. |

Notes to physician: Treat symptomatically.

5 FIRE-FIGHTING MEASURES

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

6 ACCIDENTAL RELEASE MEASURES

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.

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.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical name | OSHA PEL | OSHA PEL(Ceiling) | ACGIH OEL(TWA) | ACGIH OEL( STEL) |
--- | --- | --- | --- | --- |
Dimethylsulfoxide | None | None | None | None |
IncuCyte™ Cytotox Green Reagent | None | None | None | None |

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 gloves.
Eye protection: Safety glasses with side-shields.
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.
**PHYSICAL AND CHEMICAL PROPERTIES**

Lists the chemical's characteristics.

**General information**

- **Form:** Liquid.
- **Appearance:** No information available.
- **Odor:** No data available.
- **Odor threshold:** No data available.
- **Boiling point/range:** °C 188 - 190 °F 370 - 374
- **Melting point/range:** °C 18 - 19 °F 64.4 - 66.2
- **Flash point:** °C 87 - 89 °F 188.6 - 192.2
- **Autoignition temperature:** °C 214 - 216 °F 417.2 - 420.8
- **Oxidizing properties:** No information available.
- **Water solubility:** Miscible.
- **Upper explosion limit:** 61% - 64%
- **Lower explosion limit:** 2.4% - 2.8%
- **Viscosity:** No data available
- **pH range:** 6-8

**STABILITY AND REACTIVITY**

Lists chemical stability and possibility of hazardous reactions.

- **Stability:** Stable under normal conditions.
- **Materials to avoid:** Strong acids. Strong oxidizing agents.
- **Hazardous decomposition products:** Hazardous decomposition products formed under fire conditions. Sulphur oxides. Carbon oxides.
- **Polymerization:** Hazardous polymerization does not occur.

**TOXICOLOGICAL INFORMATION**

Includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.

### 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>
<tr>
<td>IncuCyte™ Cytotox Green Reagent</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</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.
12 ECOLOGICAL INFORMATION

List chemical's impact on the environment.

Ecotoxicity effects: 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>logPow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethylsulfoxide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>logPow-2.03</td>
</tr>
</tbody>
</table>

13 DISPOSAL CONSIDERATIONS

Dispose of in accordance with local regulations.

14 TRANSPORT INFORMATION

IATA.

Proper shipping name: No dangerous good in sense of these transport regulations.

Hazard class: None.

Subsidiary class: None.

Packing group: None.

UN-No: None.

15 REGULATORY INFORMATION

Lists federal and state regulations.

<table>
<thead>
<tr>
<th>Component</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethylsulfoxide</td>
<td>Listed</td>
</tr>
<tr>
<td>IncuCyte™ Cytotox Green Reagent</td>
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</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

California Proposition 65: This product does not contain chemicals listed under Proposition 65. Non-controlled.

<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>
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</table>

California Proposition 65: This product does not contain any Proposition 65 chemicals. 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.
16 OTHER INFORMATION  Includes the date of preparation or last revision.

<table>
<thead>
<tr>
<th>Date of preparation:</th>
<th>November 19, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision date:</td>
<td>January 16, 2018</td>
</tr>
<tr>
<td>Reason for revision:</td>
<td>Updated section 3, composition /information on ingredients</td>
</tr>
</tbody>
</table>

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

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 WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

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