Section 1. Identification of the Substance/Mixture and of the  

1.1 Product Code: 400292

Product Name: Trypan Blue (10X)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: For research use only, not for human or veterinary use.

1.3 Details of the Supplier of the Safety Data Sheet

Company Name: Cayman Chemical Company

Emergency Contact: CHEMTREC Within USA and Canada: +1 (800)424-9300

Alternate Emergency Contact: CHEMTREC Outside USA and Canada: +1 (703)527-3887

Information: Cayman Chemical Company +1 (734)971-3335

Web site address: www.caymanchem.com

Section 2. Hazards Identification

<table>
<thead>
<tr>
<th>GHS Classification</th>
<th>Placard</th>
<th>Key word</th>
<th>GHS hazard phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity: Oral, Category 5</td>
<td>none</td>
<td>Warning</td>
<td>May be harmful if swallowed</td>
</tr>
<tr>
<td>Serious Eye Damage/Eye Irritation, Category 2A</td>
<td>Exclamation point</td>
<td>Warning</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>Carcinogenicity, Category 2</td>
<td>Health hazard</td>
<td>Warning</td>
<td>Suspected of causing cancer</td>
</tr>
<tr>
<td>Toxic To Reproduction, Category 2</td>
<td>Health hazard</td>
<td>Warning</td>
<td>Suspected of damaging fertility or the unborn child</td>
</tr>
</tbody>
</table>

GHS Hazard Phrases:

H303: May be harmful if swallowed.
H319: Causes serious eye irritation.
H351: Suspected of causing cancer.
H361: Suspected of damaging fertility or the unborn child.

GHS Precaution Phrases:

P264: Wash {hands} thoroughly after handling.
P280: Wear {protective gloves/protective clothing/eye protection/face protection}.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P281: Use personal protective equipment as required.

GHS Response Phrases:

P312: Call a {POISON CENTER/doctor/...} if you feel unwell.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists, get medical advice/attention.
P308+313: IF exposed or concerned: Get medical attention/advice.

GHS Storage and Disposal Phrases:

Please refer to Section 7 for Storage and Section 13 for Disposal information.

2.3 Adverse Human Health Effects and Symptoms:

Causes serious eye irritation.
May be harmful if swallowed.
Material may be irritating to the mucous membranes and upper respiratory tract.
May be harmful by inhalation or skin absorption.
May cause skin or respiratory system irritation.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
The toxicological properties of this product have not been fully evaluated.
SAFETY DATA SHEET
Trypan Blue (10X)

Target Organs: No data available.
Medical Conditions Generally Aggravated By Exposure: No data available.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Concentration</th>
<th>EC#</th>
<th>Risk Phrases</th>
<th>RTECS #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trypan blue</td>
<td>72-57-1</td>
<td>0.0 -1.0 %</td>
<td>200-786-7</td>
<td>R45</td>
<td>QJ6475000</td>
</tr>
<tr>
<td>2. Sodium chloride</td>
<td>7647-14-5</td>
<td>0.0 -1.0 %</td>
<td>231-598-3</td>
<td>R36</td>
<td>VZ4725000</td>
</tr>
<tr>
<td>3. Water</td>
<td>7732-18-5</td>
<td>98.0 -100.0 %</td>
<td>231-791-2</td>
<td></td>
<td>ZC0110000</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

4.1.1 In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

4.1.2 In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 20 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

4.1.3 In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 20 minutes. Have eyes examined and tested by medical personnel.

4.1.4 In Case of Ingestion: No data available.

4.2 Important Symptoms and Effects, Both Acute and Delayed: No data available.

4.3 Indication of any immediate medical attention and special treatment needed: No data available.

Section 5. Fire Fighting Measures

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

5.2 Unsuitable Extinguishing Media: A solid water stream may be inefficient.

5.3 Flammable Properties and Hazards: No data available.

Flash Pt: No data.
Autoignition Pt: No data available.
Explosive Limits: LEL: No data. UEL: No data.

5.4 Hazardous Combustion Products: No data available.

5.5 Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

Section 6. Accidental Release Measures

6.1 Protective Precautions, Protective Equipment and Emergency Procedures: Avoid breathing vapors and provide adequate ventilation.
As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

6.2 Environmental Precautions: Take steps to avoid release into the environment, if safe to do so.

6.3 Methods and Material For Containment and Cleaning Up: Contain spill and collect, as appropriate.
Transfer to a chemical waste container for disposal in accordance with local regulations.
Section 7. Handling and Storage

7.1 Precautions To Be Taken in Handling: Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.

7.2 Precautions To Be Taken in Storing: Keep container tightly closed. Store in accordance with information listed on the product insert.

Hazard Label Information: Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation. Wash thoroughly after handling.

Section 8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trypan blue</td>
<td>72-57-1</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

Hazard Label Information:

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Britain EH40</th>
<th>France VL</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trypan blue</td>
<td>72-57-1</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>7647-14-5</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

Protective Equipment Summary - Hazard Label Information:

8.2.1 Engineering Controls (Ventilation etc.):
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.2.2.1 Eye Protection:
Safety glasses

8.2.2.2 Protective Gloves:
Compatible chemical-resistant gloves

8.2.2.3 Respiratory Equipment (Specify Type):
NIOSH approved respirator, as conditions warrant.

8.2.3 Environmental Exposure Controls:
No data available.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States: [ ] Gas [X] Liquid [ ] Solid
Appearance and Odor: No data available.
Melting Point: No data.
Boiling Point: No data.
Flash Pt: No data.
Evaporation Rate: No data.
Vapor Pressure (vs. Air or mm Hg): No data.
Vapor Density (vs. Air = 1): No data.
Specific Gravity (Water = 1): No data.
Solubility in Water: No data.
Autoignition Pt: No data.
Explosive Properties: No data available.
Oxidizing Properties:
No data available.

9.2 Other Information

Percent Volatile:
No data.

Section 10. Stability and Reactivity

10.1 Reactivity:
No data available.

10.2 Stability:
Unstable [ ] Stable [ X ]

10.3 Stability Note(s):
Stable if stored in accordance with information listed on the product insert.

10.4 Conditions To Avoid:
No data available.

10.5 Polymerization:
Will occur [ ] Will not occur [ X ]

10.6 Incompatibility - Materials To Avoid:
strong oxidizing agents

Byproducts:
No data available.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects:
The toxicological effects of this product have not been thoroughly studied.

11.2 Chronic Toxicological Effects:
No data available.

11.3 Carcinogenicity/Other Information:
IARC: Group 2B: Possible human carcinogen (Trypan Blue); California Prop. 65 carcinogen.

Hazardous Components (Chemical Name) | CAS #   | NTP | IARC | ACGIH | OSHA |
---------------------------------------|--------|-----|------|-------|------|
1. Trypan blue                        | 72-57-1| n.a.| 2B   | n.a.  | n.a. |
2. Sodium chloride                    | 7647-14-5| n.a.| n.a. | n.a.  | n.a. |

Carcinogenicity:
NTP? No         IARC Monographs? Yes        OSHA Regulated? No

Section 12. Ecological Information

12.1 Toxicity:
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

Section 13. Disposal Considerations

13.1 Waste Disposal Method:
Dispose in accordance with local, state, and federal regulations.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT)
DOT Proper Shipping Name
Not dangerous goods.

14.1 LAND TRANSPORT (European ADR/RID)
ADR/RID Shipping Name
Not dangerous goods.

14.3 AIR TRANSPORT (ICAO/IATA)
ICAO/IATA Shipping Name
Not dangerous goods.

Additional Transport Information:
Transport in accordance with local, state, and federal regulations.

Section 15. Regulatory Information

European Community Hazard Symbol codes
T: Toxic; Xi: Irritant

European Community Risk and Safety Phrases
- R36 - Irritating to eyes.
- R45 - May cause cancer.
- S24/25 - Avoid contact with skin and eyes.
- S37/39 - Wear suitable gloves and eye/face protection.
SAFETY DATA SHEET
Trypan Blue (10X)

Revision Date: 08/01/2013
Supersedes Revision: 09/09/2010

US EPA SARA Title III

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Sec.302 (EHS)</th>
<th>Sec.304 RQ</th>
<th>Sec.313 (TRI)</th>
<th>Sec.110</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trypan blue</td>
<td>72-57-1</td>
<td>No</td>
<td>Yes 10 LB</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>2. Sodium chloride</td>
<td>7647-14-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>3. Water</td>
<td>7732-18-5</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Other US EPA or State Lists

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>CAA HAP,ODC</th>
<th>CWA NPDES</th>
<th>TSCA</th>
<th>CA PROP.65</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trypan blue</td>
<td>72-57-1</td>
<td>No</td>
<td>No</td>
<td>Inventory, 5A(2), 12(b)</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Sodium chloride</td>
<td>7647-14-5</td>
<td>No</td>
<td>No</td>
<td>Inventory</td>
<td>No</td>
</tr>
<tr>
<td>3. Water</td>
<td>7732-18-5</td>
<td>No</td>
<td>No</td>
<td>Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

Regulatory Information Statement: This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

Section 16. Other Information

Revision Date: 08/01/2013

Company Policy or Disclaimer

DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability 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.

N.A.=Not available, N.P.=Not applicable, N.D.=Not determined, N.E.=Not established, N.R.=Not required

Multi-region format