Product and Company Information

Product Name  EasySee® Western Blot Kit
Cat. No.       DW101
Company        TransGen Biotech Co., Ltd.
Technical Phone +86-400-898-0321
Fax            +86-10-57815011
E-mail Address trans@transgen.com.cn

The following TransGen products are included:

Solution A (Luminol)
Solution B (Oxidant)
Solution C (Light intensifier)
Material Safety Data Sheet
Revision Date: 1-June-2016

1. Product and Company Information
Product Name               Solution A(Luminol)
Cat. No.                   GP201-01
Company                    TransGen Biotech Co., Ltd.
Technical Phone            +86-400-898-0321
Fax                        +86-10-57815011
E-mail Address             trans@transgen.com.cn

2. Hazards Identification
Not hazardous

Potential Health effects

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>May cause eye irritation with susceptible persons.</td>
</tr>
<tr>
<td>Skin</td>
<td>May cause skin irritation in susceptible persons.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May be harmful by inhalation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
</tbody>
</table>

3. Composition
The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

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).

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact: Wash off immediately with plenty of water for at least 15 minutes.

Inhalation: Move to fresh air.

Ingestion: Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Not an expected route of exposure.

TransGen Biotech Co., Ltd.
Notes to physician  Treat symptomatically.

5. Fire-Fighting Measures

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>Water spray. Carbon dioxide (CO₂). Foam. Dry chemical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special protective equipment for firefighters</td>
<td>Wear self-contained breathing apparatus and protective suit.</td>
</tr>
</tbody>
</table>

6. Accidental Release Measures

| Personal precautions | Use personal protective equipment. |
| Methods for cleaning up | Soak up with inert absorbent material. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. |

7. Handling and Storage

| Precautions for safe handling | Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. |
| Conditions for safe storage | Keep in a dry, cool and well-ventilated place. |

8. Exposure Controls/Personal Protection

Exposure limits:  We are not aware of any national exposure limit.

9. Physical and Chemical Properties

General Information

<table>
<thead>
<tr>
<th>Form:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water solubility:</td>
<td>Soluble</td>
</tr>
<tr>
<td>Others:</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

| Stability | Stable under normal conditions |
| Materials to avoid | Strong oxidizing agents, Hydrogen fluoride |
| Hazardous decomposition | no data available |

TransGen Biotech Co., Ltd.
11. Toxicological Information

Acute toxicity - No information available.

<table>
<thead>
<tr>
<th>Principle Routes of Exposure/ Potential Health effects</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eyes</td>
<td>May cause eye irritation with susceptible persons.</td>
</tr>
<tr>
<td>Skin</td>
<td>May cause skin irritation in susceptible persons.</td>
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<td>Inhalation</td>
<td>May be harmful by inhalation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May be harmful if swallowed.</td>
</tr>
<tr>
<td>Carcinogenic effects</td>
<td>No information available.</td>
</tr>
<tr>
<td>Mutagenic effects</td>
<td>No information available.</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>No information available.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

12. Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicity effects</th>
<th>No information available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>No information available.</td>
</tr>
<tr>
<td>Biodegradation</td>
<td>Inherently biodegradable.</td>
</tr>
<tr>
<td>Bioaccumulation</td>
<td>Does not bioaccumulate.</td>
</tr>
</tbody>
</table>

13. Disposal Considerations

Dispose of in accordance with local regulations.

14. Transport Information

<table>
<thead>
<tr>
<th>IATA</th>
<th>Not dangerous goods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>Not classified as dangerous in the meaning of transport regulations</td>
</tr>
<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>
</tbody>
</table>
15. Regulatory Information

| International Inventories | Complies |

16. Other Information

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 MSDS 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
Material Safety Data Sheet

Revision Date: 1-June-2016

1. Product and Company Information

Product Name: Solution B(Oxidant)
Cat. No.: GP201-02
Company: TransGen Biotech Co., Ltd.
Technical Phone: +86-400-898-0321
Fax: +86-10-57815011
E-mail Address: trans@transgen.com.cn

2. Hazards Identification

The product contains no substances which at their given concentration, are considered to be hazardous to health.

3. Composition

This kit consist of Hazardous/Non-hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric acid</td>
<td>10043-35-3</td>
<td>&lt;2.0</td>
</tr>
</tbody>
</table>

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

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).
Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact: Wash off immediately with plenty of water for at least 15 minutes.
Inhalation: Move to fresh air.
Ingestion
Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Not an expected route of exposure.

Notes to physician Treat symptomatically.

5. Fire-Fighting Measures
Suitable extinguishing media Dry chemical

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

6. Accidental Release Measures
Personal precautions Use personal protective equipment.
Methods for cleaning up Soak up with inert absorbent material.
Environmental precautions Prevent further leakage or spillage if safe to do so.

7. Handling and Storage
Precautions for safe handling Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage Keep in properly labeled containers.

8. Exposure Controls/Personal Protection
Exposure limits:

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

9. Physical and Chemical Properties

General Information
Form: Liquid
Water solubility: soluble
Others: No information available.
10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Stability</th>
<th>Stable under normal conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials to avoid</td>
<td>No information available</td>
</tr>
<tr>
<td>Hazardous decomposition</td>
<td>No information available</td>
</tr>
<tr>
<td>Products polymerization</td>
<td>Hazardous polymerisation does not occur</td>
</tr>
</tbody>
</table>

11. Toxicological Information

**Acute toxicity - Component Information**

<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>Glycerol</td>
<td>2660 mg/kg (Rat)</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Principle Routes of Exposure/ Potential Health effects**

- **Eyes**
  - No information available.

- **Skin**
  - No information available.

- **Inhalation**
  - No information available.

- **Ingestion**
  - No information available.

- **Carcinogenic effects**
  - No information available.

- **Mutagenic effects**
  - No information available.

- **Reproductive toxicity**
  - No information available.

- **Sensitization**
  - No information available.

12. Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicity effects</th>
<th>No information available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>No information available.</td>
</tr>
<tr>
<td>Biodegradation</td>
<td>No information available.</td>
</tr>
<tr>
<td>Bioaccumulation</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

13. Disposal Considerations

Dispose of in accordance with local regulations.
14. Transport Information

IATA
Proper shipping name  Not classified as dangerous in the meaning of transport regulations
Hazard class  none
Subsidiary Class  none
Packing group  none
UN-No  none

15. Regulatory Information

International Inventories  |  Complies

16. Other Information

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End of Safety Data Sheet
Material Safety Data Sheet
Revision Date: 1-June-2016

1. Product and Company Information
Product Name: Solution C (Light intensifier)
Cat. No.: GP201-03
Company: TransGen Biotech Co., Ltd.
Technical Phone: +86-400-898-0321
Fax: +86-10-57815011
E-mail Address: trans@transgen.com.cn

2. Hazards Identification
The product contains no substances which at their given concentration, are considered to be hazardous to health.

3. Composition
This kit consist of Hazardous/Non-hazardous Components

<table>
<thead>
<tr>
<th>Chemical Name</th>
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<tbody>
<tr>
<td>Boric acid</td>
<td>10043-35-3</td>
<td>&lt;2.0</td>
</tr>
</tbody>
</table>

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

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).
Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact: Wash off immediately with plenty of water for at least 15 minutes.
Inhalation: Move to fresh air.
Ingestion  Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Not an expected route of exposure.

Notes to physician  Treat symptomatically.

5. Fire-Fighting Measures
   Suitable extinguishing media  Dry chemical
   Special protective equipment for firefighters  Wear self-contained breathing apparatus and protective suit.

6. Accidental Release Measures
   Personal precautions  Use personal protective equipment.
   Methods for cleaning up  Soak up with inert absorbent material.
   Environmental precautions  Prevent further leakage or spillage if safe to do so.

7. Handling and Storage
   Precautions for safe handling  Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.
   Conditions for safe storage  Keep in properly labeled containers.

8. Exposure Controls/Personal Protection
   Exposure limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL (TWA)</th>
<th>OSHA PEL (Ceiling)</th>
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<tbody>
<tr>
<td>Boric acid</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

9. Physical and Chemical Properties
   General Information
   Form: Liquid
   Water solubility: soluble
   Others: No information available.
10. Stability and Reactivity

Stability
Stable under normal conditions

Materials to avoid
No information available

Hazardous decomposition
No information available

Products polymerization
Hazardous polymerisation does not occur

11. Toxicological Information

Acute toxicity - Component Information

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 (oral, rat/mouse)</th>
<th>LD50 (dermal, rat/rabbit)</th>
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<tbody>
<tr>
<td>Glycerol</td>
<td>2660 mg/kg (Rat)</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Principle Routes of Exposure/ Potential Health effects

Eyes
No information available.

Skin
No information available.

Inhalation
No information available.

Ingestion
No information available.

Carcinogenic effects
No information available.

Mutagenic effects
No information available.

Reproductive toxicity
No information available.

Sensitization
No information available.

12. Ecological Information

Ecotoxicity effects
No information available.

Mobility
No information available.

Biodegradation
No information available.

Bioaccumulation
No information available.

13. Disposal Considerations

Dispose of in accordance with local regulations.
14. Transport Information

IATA
Proper shipping name: Not classified as dangerous in the meaning of transport regulations
Hazard class: none
Subsidiary Class: none
Packing group: none
UN-No: none

15. Regulatory Information

International Inventories: Complies

16. Other Information

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End of Safety Data Sheet