Material Safety Data Sheet
Revision Date: 10-May-2014

Product and Company Information
Product Name  TransZol Up Plus RNA Kit
Cat. No.  ER501
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:
TransZol Up
Clean Buffer 9 (CB9)
Wash Buffer 9 (WB9)
RNase-free Water
RNA Spin Column with Collection Tubes
RNase-free Tube
Material Safety Data Sheet
Revision Date: 10-May-2014

1. Product and Company Information
Product Name TransZol Up
Cat. No. ET111-01
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
GHS-Classification
Signal word: Danger

<table>
<thead>
<tr>
<th>Health hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Category 3</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>Category 3</td>
</tr>
<tr>
<td>Acute Inhalation toxicity - Dusts and Mists</td>
<td>Category 2</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 1B</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ systemic toxicity (repeated exposure)</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

| Mutagenicity                                      | Mutagenic Category 2|

Hazard statements: H330 - Fatal if inhaled
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H314 - Causes severe skin burns and eye damage
H341 - Suspected of causing genetic defects
H373 - May cause damage to organs through prolonged or repeated exposure

TransGen Biotech Co., Ltd.
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P309 + P311 - IF exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P284 - Wear respiratory protection
P271 - Use only outdoors or in a well-ventilated area
P260 - Do not breathe dust or mist
P264 - Wash hands thoroughly after handling
P273 - Avoid release to the environment
EUH032 - Contact with acids liberates very toxic gas.

Potential health effects

<table>
<thead>
<tr>
<th>Eyes</th>
<th>Causes burns. Risk of serious damage to eyes. Corrosive to the eyes and may cause severe damage including blindness.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin</td>
<td>Toxic in contact with skin. Causes burns. Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes. Possible risks of irreversible effects.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Toxic by inhalation. Causes burns.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Toxic if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.</td>
</tr>
</tbody>
</table>

3. Composition

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol</td>
<td>108-95-2</td>
<td>30-60</td>
</tr>
<tr>
<td>Thiocyanic acid, compound with guanidine (1:1)</td>
<td>593-84-0</td>
<td>15-40</td>
</tr>
<tr>
<td>Ammonium thiocyanate</td>
<td>1762-95-4</td>
<td>7-13</td>
</tr>
</tbody>
</table>

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.

Notes to physician  Treat symptomatically.

5. Fire-Fighting 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.

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

Handling  Always wear recommended Personal Protective Equipment. No special handling advice required.

Storage  Keep containers tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Protect from light.

8. Exposure Controls/Personal Protection

Exposure limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>OSHA PEL (TWA)</th>
<th>OSHA PEL (STEL)</th>
<th>ACGIH OEL (TWA)</th>
<th>ACGIH OEL (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenol</td>
<td>2 ppm</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td></td>
<td>7.8 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TransGen Biotech Co., Ltd.
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


Polymerization: None under normal processing.

11. Toxicological 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>Phenol</td>
<td>317 mg/kg (Rat)</td>
<td>no data available</td>
<td>316 mg/m³ (Rat)</td>
</tr>
<tr>
<td>Thiocyanic acid, compound with guanidine (1:1)</td>
<td>571 mg/kg</td>
<td>2000 mg/kg</td>
<td>5.319 mg/l (4hrs)</td>
</tr>
<tr>
<td>Ammonium thiocyanate</td>
<td>500 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: Causes burns. Risk of serious damage to eyes. Corrosive to the eyes and may cause severe damage including blindness.

Skin: Toxic in contact with skin. Causes burns. Components of the product may be absorbed into the body through the skin. Irritating to skin and mucous membranes. Possible risks of irreversible effects.

Inhalation: Toxic by inhalation. Causes burns.

Ingestion: Toxic if swallowed. Ingestion causes burns of the upper digestive and respiratory tracts. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
Carcinogenic effects  None.
Mutagenic effects  None.
Reproductive toxicity  None.

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

<table>
<thead>
<tr>
<th>IATA</th>
<th>Corrosive liquid, n.o.s. (guanidine thiocyanate-phenol solution)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>8</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>No information available</td>
</tr>
<tr>
<td>Packing group</td>
<td>II</td>
</tr>
<tr>
<td>UN-No</td>
<td>UN1760</td>
</tr>
</tbody>
</table>

15. Regulatory Information

<table>
<thead>
<tr>
<th>International Inventories</th>
<th>Complies</th>
</tr>
</thead>
</table>

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
1. Product and Company Information

Product Name: Clean Buffer 9 (CB9)
Cat. No.: ER501-0101
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

GHS - Classification

Signal Word: Warning

Health hazard

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Hazard statements:
H316 – Causes mild skin irritation.
H319- Causes serious eye irritation.

Precautionary statements:
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice/attention
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P264 - Wash hands thoroughly after handling

Potential health effects

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

3. Composition

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>guanidinium hydrochloride</td>
<td>50-01-1</td>
<td>7-13</td>
</tr>
</tbody>
</table>

Contact with acids or bleach liberates toxic gases. DO NOT ADD acids or bleach to any liquid wastes containing this product. 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.

Notes to physician  Treat symptomatically.

5. Fire-Fighting 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.

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

**Handling**
Always wear recommended Personal Protective Equipment. No special handling advice required.

**Storage**
Keep in a dry, cool and well-ventilated place. 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 (STEL)</th>
<th>ACGIH OEL (TWA)</th>
<th>ACGIH OEL (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guanidinium hydrochloride</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
- Color: transparent
- Water solubility: soluble
- Others: No information available.

10. Stability and Reactivity

**Stability**
Stable under normal conditions

**Materials to avoid**
Contact with acids or bleach liberates toxic gases. DO NOT ADD acids or bleach to any liquid wastes containing this product.

**Polymerization**
None under normal processing.

11. Toxicological 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>Guanidinium hydrochloride</td>
<td>no data available</td>
<td>&gt; 2000 mg/kg (Rabbit)</td>
<td>no data available</td>
</tr>
</tbody>
</table>

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

- **Eyes**
  May cause eye irritation with susceptible persons.
Skin
May be harmful in contact with skin.

Inhalation
Harmful by inhalation.

Ingestion
May be harmful if swallowed.

Carcinogenic effects
None.

Mutagenic effects
None.

Reproductive toxicity
None.

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

<table>
<thead>
<tr>
<th>International Inventories</th>
<th>Complies</th>
</tr>
</thead>
</table>

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

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TransGen Biotech Co., Ltd.
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
1. **Product and Company Information**

Product Name: Wash Buffer 9 (WB9)
Cat. No.: ER501-0102
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**
- **Eyes**: May cause eye irritation with susceptible persons.
- **Skin**: May cause skin irritation in susceptible persons.
- **Inhalation**: May be harmful by inhalation.
- **Ingestion**: May be harmful if swallowed.

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**

<table>
<thead>
<tr>
<th>General advice</th>
<th>In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Wash off immediately with plenty of water for at least 15 minutes.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Move to fresh air.</td>
</tr>
</tbody>
</table>
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
Water spray. Carbon dioxide (CO₂). Foam. 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 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
Form: Liquid
Water solubility: Soluble
Others: No information available.

10. Stability and Reactivity
Stability: Stable under normal conditions
Materials to avoid: No dangerous reaction known under conditions of normal use.
Hazardous decomposition: No data available

11. Toxicological Information
Acute toxicity - No information available.

- Principle Routes of Exposure/ Potential Health effects
- Eyes: May cause eye irritation with susceptible persons.
- Skin: May cause skin irritation in susceptible persons.
- Inhalation: May be harmful by inhalation.
- Ingestion: May be harmful if swallowed.
- 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: Inherently biodegradable.
- Bioaccumulation: Does not bioaccumulate.

13. Disposal Considerations
Dispose of in accordance with local regulations.

14. Transport Information
- IATA: Not dangerous goods
- Proper shipping name: Not classified as dangerous in the meaning of transport regulations
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.

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End of Safety Data Sheet
1. Product and Company Information

Product Name: RNase-free Water
Cat. No.: GI201-01
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

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>Water</td>
<td>7732-18-5</td>
<td>100</td>
</tr>
</tbody>
</table>

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  Water spray. Carbon dioxide (CO\textsubscript{2}). Foam. 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 a dry, cool and well-ventilated place.

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>Water</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>
<th>LC50 (inhalation, rat/mouse)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

Principle Routes of Exposure/ Potential Health effects

- Eyes: May cause eye irritation with susceptible persons.
- Skin: May cause skin irritation with susceptible persons.
- Inhalation: May be harmful by inhalation.
- Ingestion: May be harmful if swallowed.
- 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: Inherently biodegradable.
Bioaccumulation: Does not bioaccumulate.

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

TransGen Biotech Co., Ltd.
15. Regulatory Information
International Inventories | Complies

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

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End of Safety Data Sheet
Material Safety Data Sheet
Revision Date: 10-May-2014

1. Product and Company Information
Product Name: RNA Spin Columns with Collection Tubes
Cat. No.: GR101-07
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

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.
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: 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
   Form: Solid
   Water solubility: N/A
   Others: No information available.

10. Stability and Reactivity
    Stability: Stable under normal conditions
    Materials to avoid: Strong oxidizing agents
    Hazardous decomposition: no data available

11. Toxicological Information
    Acute toxicity - No information available.
Principle Routes of Exposure/ Potential Health effects

Eyes
May cause eye irritation with susceptible persons.

Skin
May cause skin irritation in susceptible persons.

Inhalation
May be harmful by inhalation.

Ingestion
May be harmful if swallowed.

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>
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<td>Biodegradation</td>
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<td>Bioaccumulation</td>
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</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>
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<tbody>
<tr>
<td>Proper shipping name</td>
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<tr>
<td>Hazard class</td>
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<td>Packing group</td>
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<td>UN-No</td>
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15. Regulatory Information

TransGen Biotech Co., Ltd.
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.

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End of Safety Data Sheet
Material Safety Data Sheet
Revision Date: 10-May-2014

1. Product and Company Information
Product Name       RNase-free Tube
Cat. No.            ER101-0102
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

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.
Notes to physician Treat symptomatically.
5. Fire-Fighting 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.

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
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End of Safety Data Sheet