1. **Product and Company Information**

   **Product Name**: TransStart® FastPfu DNA Polymerase  
   **Cat. No.**: AP221  
   **Company**: TransGen Biotech Co., Ltd.  
   **Technical Phone**: +86-400-898-0321  
   **Fax**: +86-010-57815011  
   **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>Glycerol</td>
<td>56-81-5</td>
<td>&gt;50</td>
</tr>
</tbody>
</table>

   Other components: Components not listed here are not hazardous or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200.

   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

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>Glycerol</td>
<td>15 mg/m³ total dust</td>
<td>none</td>
<td>10 mg/m³</td>
<td>none</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ respirable fraction</td>
<td></td>
<td></td>
<td></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>Glycerol</td>
<td>12600 mg/kg (Rat)</td>
<td>10 g/kg (Rabbit)</td>
<td>570 mg/m³ (Rat)</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

<table>
<thead>
<tr>
<th>IATA</th>
<th>Proper shipping name</th>
<th>Not classified as dangerous in the meaning of transport regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard class</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Packing group</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>UN-No</td>
<td>none</td>
<td></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