1. Product and Company Information

Product Name: ProteinIso™ Ni-NTA Resin
Cat. No.: DP101
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
Indication of danger: T-Toxic

Hazard statements: Flammable.
Harmful if swallowed.
Limited evidence of a carcinogenic effect
May cause sensitization by inhalation and skin contact.

Precautionary statements: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Do not breathe vapor or mist. Use only with adequately ventilation. Do not eat, drink or smoke when using this product. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Keep container tightly closed. Use personal protective equipment as required. Wash thoroughly after handling.

Potential acute health effects

<table>
<thead>
<tr>
<th>Effect</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 with susceptible persons.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>May cause irritation of the respiratory system.</td>
</tr>
</tbody>
</table>
**Ingestion**  
Ingestion may cause irritation to mucous membranes.

### 3. Composition

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>20</td>
</tr>
<tr>
<td>Nickel (II) chloride, hexahydrate</td>
<td>7791-20-0</td>
<td>0.25</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 a 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>Ethanol</td>
<td>1900 mg/m³</td>
<td>none</td>
<td>1000 ppm</td>
<td>none</td>
</tr>
<tr>
<td>Nickel (II) chloride, hexahydrate</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 data available

**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>Ethanol</td>
<td>11500-7060 mg/kg (Rat)</td>
<td>no data available</td>
<td>64,000 ppm/4hr</td>
</tr>
<tr>
<td>Nickel (II) chloride, hexahydrate</td>
<td>105 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: May cause eye irritation with susceptible persons.
### 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>Ethanol solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td></td>
</tr>
<tr>
<td>Hazard class</td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary Class</td>
<td>none</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>UN-No</td>
<td>1170</td>
</tr>
</tbody>
</table>

### 15. Regulatory Information

<table>
<thead>
<tr>
<th>International Inventories</th>
<th>Complies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard symbols: Harmful</td>
<td></td>
</tr>
<tr>
<td>Risk phrases: Flammable.</td>
<td></td>
</tr>
<tr>
<td>Harmful if swallowed.</td>
<td></td>
</tr>
<tr>
<td>Limited evidence of a carcinogenic effect.</td>
<td></td>
</tr>
</tbody>
</table>
May cause sensitization by inhalation and skin contact.

Safety phrases: Keep away from food, drink and animal feedingstuffs.
   In case of contact with eyes, rinse immediately with plenty of water
   and seek medical advice.
   Wear suitable protective clothing.
   If swallowed, seek medical advice immediately and show this container
   or label.

Special labeling of certain preparations: Warning—contains substance not yet fully
tested

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

End of Safety Data Sheet