SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** 001*7 (732) Styrene cation exchange resin, strong acidic

**Product description:** Sulfonated divinylbenzene/styrene copolymer.

**Supplier:** Shanghai Resin Factory Co., Ltd.

201 Tianshan Road

Shanghai, China

Telephone: +86-21-62908931

2. HAZARDS IDENTIFICATION

Not classified as hazardous according to criteria of NOHSC

**Poison Schedule:** Not Scheduled

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a preparation.

4. FIRST AID MEASURES

**Skin contact:** Wash off with soap and water. If skin irritation persists, call a physician.

**Eye contact:** Rinse with plenty of water. If eye irritation persists, consult a specialist.

5. FIRE-FIGHTING MEASURES

**Hazchem Code:** None Allocated

**Suitable extinguishing media:** Use the following extinguishing media when fighting fires involving this material:

- Water spray
- Carbon dioxide (CO2)
- Foam
- Dry chemical

**Specific hazards during fire fighting:** Toxic fumes are generated when material is exposed to fire or fire conditions. Cool closed containers exposed to fire with water spray.

**Special protective equipment for fire-fighters:** In the event of fire, wear self-contained breathing apparatus.

**Further information:** Remain upwind.

Avoid breathing smoke.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

Methods for cleaning up
Keep spectators away.
Floor may be slippery; use care to avoid falling.
Transfer spilled material to suitable containers for recovery or disposal.

7. Handling and storage

Handling
NOTE: This product as supplied is a whole bead resin and may produce slight eye irritation. However, the ground form of this resin should be treated as a severe eye irritant. Worker exposure to ground resins can be controlled with local exhaust ventilation at the point of dust generation, or use of suitable personal protective equipment (dust/mist air-purifying respirator and safety goggles). Avoid repeated freeze-thaw cycles; beads may fracture. If frozen, thaw at room temperature.

Storage
Further information:
CAUTION: Do not pack column with dry ion exchange resins. Dry beads expand when wetted; this expansion can cause glass column to shatter.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limit(s)
Exposure limits are listed below, if they exist.

Exposure controls
Eye protection: Use safety glasses with side shields (ANSI Z87.1 or approved equivalent).

Hand protection: Cotton or canvas gloves.

Respiratory protection: No personal respiratory protective equipment normally required.

Protective measures: Facilities storing or utilizing this material should be equipped with an eyewash facility.

Engineering measures: None required under normal operating conditions.
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state                  Beads
Colour                         Light brown yellow transparent spherical particles
pH                             8.0 - 10.0 Aqueous slurry
Boiling point/range            100 °C water
Melting point/range            0 °C water
Flash point                    not applicable
Ignition temperature          400 °C
Lower explosion limit         not applicable
Upper explosion limit          not applicable
Vapour pressure                22.0 hPa at 20 °C
Water solubility              insoluble
Relative density              1.25~1.29
Evaporation rate               <1.00
Percent volatility             47 - 55 %

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Hazardous reactions            Stable under normal conditions.
Materials to avoid              Avoid contact with the following: Strong Oxidizers
Hazardous decomposition products Thermal decomposition may yield the following: monomer vapors,

11. TOXICOLOGICAL INFORMATION

No data are available for this material. The information shown is based on profiles of compositionally similar materials.

Acute oral toxicity            LD50 rat >5,000 mg/kg
Acute dermal toxicity          LD50 rabbit >5,000 mg/kg

12. ECOLOGICAL INFORMATION

Chemical Fate
Biochemical Oxygen            No data available
Demand (BOD)
13. DISPOSAL CONSIDERATIONS

Disposal

Waste Classification: When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP). Unused material may be incinerated or landfilled in facilities meeting local, state, and federal regulations.

Contaminated packaging: Empty containers should be taken to local recyclers for disposal. Refer to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

   Not regulated (Not dangerous for transport)

Classification for SEA transport (IMO-IMDG):

   Not regulated (Not dangerous for transport)

Classification for AIR transport (IATA/ICAO):

   Not regulated (Not dangerous for transport)

HazchemCode

None Allocated

*Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations*

15. REGULATORY INFORMATION

Label

Classification and labeling have been performed according to regulations.

Australia. Industrial Chemical (Notification and Assessment) Act (AUSTR) All ingredients in this preparation are listed in the Australian Inventory of Chemical Substances, AICS

US. Toxic Substances Control Act (TSCA) All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
16. OTHER INFORMATION

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
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<tr>
<td>BAc</td>
<td>Butyl acetate</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
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<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<tr>
<td>STEL</td>
<td>Short Term Exposure Limit (STEL):</td>
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<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
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<td>TWA</td>
<td>Time Weighted Average (TWA):</td>
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<td>I</td>
<td>Bar denotes a revision from prior MSDS.</td>
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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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