ISO 9001 and ISO 14001 Certified
Version 1.0

Date of Preparation: August 20, 2003

SECTION 1. CHEMICAL IDENTITY
Chemical name: Isotropic Strontium Ferrite Magnet
Common name: Rubber Magnet
Product Article No.: 200.046
MSDS reference identity: MH001-A-0412

SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS
The chemical is a mixture
Chemical name: Strontium Ferrite (SrO.6Fe₂O₃)
Hazardous Ingredients: SrCl₂. Standard content of SrCl₂ (GB/T114848-93) Standard of underground water quality : class I, 0.01; class II, 0.1 ; class III,1.0; class IV,4.0 ; class V, more than 4.0; TLV of the hazardous material in drinking water is 0.7mg/1; (Industry standard): TLV-TWA 0.5mg/m³; STEL 0.5mg/m³

SECTION 3. HAZARDS IDENTIFICATION
Hazard Classification: Strontium Ferrite (un-listed), SrCl₂ is hazardous.
Ingestion: Strontium Ferrite has little toxicity. However, it contains soluble barium salt such as SrCl₂ and SrNO₃ that is seriously hazardous when it is ingested. It will cause gastrointestinal tract distress, muscle anaesthesia and myocardial infarction which leads to death. Inhalation dusts and particulates of soluble barium compound may cause accurate barium toxicosis which appears mostly like oral administration toxicosis but the response of alimentary tract is quicker. Worker who contacts barium compound for a long time may appear drooly,faint, rhinolaryngitis, increasing blood pressure and losing hair and so on. Prolonged contact with dusts of barium compound such as vitriolic barium may cause pneumoconiosis.
Environment hazard: chemical reaction has high stability and it won’t cause harm to environment.
Fire hazard: no information

SECTION 4. FIRST AID MEASURES
Shin: remove any contaminated clothing and wash thoroughly with soap and water. Eyes: flush with running water for holding the eyelids wide open. Seek medical attention and doctor.
Inhalation: remove exposed person to fresh air. If breathing is difficult, oxygen may Ingestion: Drink enough water to induce vomiting. Flush the stomach with 2%to 5% BaNO₃ liquid to induce lax. Seek medical treatment.

SECTION 5. FIRE FIGHTING MEASURES
Hazard characteristic; no information
Fire Fighting methods: water, Foam and sand
Fire Fighting per-caution: no information

SECTION 6. ACCIDENTAL RELEASE MEASURES
Emergency handling: separated from the exposed area and forbid anyone to enter. A self contained breathing apparatus operating in the positive pressure mode and full fire fighting protective clothing should be worn for combating fires. Don’t contact the scop to dry and clean container. Large amount release: covered with plastic and canvas to reduce dust. Then collect or recycle them to trash handling place.

SECTION 7. HANDLING AND STORAGE
Operating advice: wear anti-dust respirator in the processing of powder.
Storage advice: keep the warehouse ventilated, low-temperature and dried; separate from food additive and acid food.

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SECTION 8. CONTACT CONTROL/PERSONAL PROTECTION

OLV: no information
Test method: no industry test method but the lab test method is available.

<table>
<thead>
<tr>
<th>Test method</th>
<th>Source</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorimetry</td>
<td>EPA method 9250,9251</td>
<td>Water quality</td>
</tr>
<tr>
<td>Titration</td>
<td>EPA method 9252</td>
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<tr>
<td>Plasma spectrum</td>
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<tr>
<td>Atom absorb</td>
<td>EPA method 7080</td>
<td>Water quality</td>
</tr>
<tr>
<td>Barium sulfate</td>
<td>Chemical Industry harmful material in the air testing method</td>
<td>Chemical Industry Air</td>
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</tbody>
</table>

Project control: The working area should keep close during the producing of powder, good exhaust fan is needed and safe shower and clean water must be supplied!

Respirator system protection: no special protection is needed in normal condition; filtrating respirator is needed in the processing of powder.
Eyes protection: no special protection is needed in normal condition.
Body protection: no special protection is needed in condition, wear common clothes.
Hand protection: no special protection is needed in normal condition.
Other protection: no special protection is needed in normal condition.

SECTION 9. PHYSICAL CHARACTERISTIC

Appearance and property: magnetic powder is black, and the finished product is strip.
PH value: solid, no test recorder.
Melting point: 965 °C; Density (Water=1): 3.86 (SrCl₂)
Boiling point: 1560°C; Vapor density (Air=1): No information available (SrCl₂)
Vapor pressure: no information available
Critical temperature and pressure: no information available
Flash point: no information available
Auto ignition temperature: no information available
Solubility: this product is indiscernible.
The toxicant SrCl₂ is soluble in water but indiscernible in acetone and ethanol, slightly soluble in acetic acid and vitriol.
Main usage: refrigeratory, icebox and disinfector’s airproof.
SECTION 10. STABILITY AND REACTIVITY
Stability: the product is very stable.
Incompatibility: Boron trifluoride
Condition to avoid: non-direct contact
Polymerization harm: exquisite reactivity
Disassemble product: \( \text{H}_2\text{Cl}_2\text{SrO} \)

SECTION 11. TOXICOLOGICAL INFORMATION
Acute toxicity: \( \text{LD}_{50} 118\text{mg/kg (SrCl}_2) \)
Irritant: no information available
Sensitizer: no information available
Mutagen: no information available
Carcinogen: no information available
Other: no information available

SECTION 12. ECOLOGICAL INFORMATION
Detailed studies have not been conducted concerning the environmental fate of the product.

SECTION 13. DISPOSAL CONSIDERATIONS
Characteristic of the castoff: industry castoff
Method of disposal: burning
Advice of disposal: no information available

SECTION 14. TRANSPORT INFORMATION
Hazardous goods reference: no
UN reference: no
Shipping mark: no
Shipping classification: no requirement
Packing method: common paper packing or wooden pallet packing
Shipping advice: no

SECTION 15. REGULATORY INFORMATION
Chemical Safety Administration Rule and Implementary Details (Chemical Department issue (1992) NO.667), GB 13690-92, Common Hazardous Chemical Classification and Symbol.

SECTION 16. OTHER INFORMATION
GB13690-92, (Common Hazardous Chemical Classification and Symbol)