Material Safety Data Sheet
Strontium AA Standard, 1ml=1mg Sr (1000ppm)

Section 1 - Chemical Product and Company Identification

MSDS Name:
Strontium AA Standard, 1ml=1mg Sr (1000ppm)

Catalog Numbers:
LC25400

Synonyms:
None

Company Identification:
LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:
(412) 826-5230

Emergency Phone Number:
(800) 424-9300

CHEMTREC Phone Number:
(800) 424-9300

Section 2 – Composition, Information on Ingredients

<table>
<thead>
<tr>
<th>CAS#</th>
<th>Chemical Name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7732-18-5</td>
<td>Water</td>
<td>&gt;99</td>
</tr>
<tr>
<td>7697-37-2</td>
<td>Nitric acid</td>
<td>4</td>
</tr>
<tr>
<td>1633-05-2</td>
<td>Strontium carbonate</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Section 3 - Hazards Identification

Emergency Overview

Appearance: Clear, colorless solution

Danger! Corrosive. Causes eye and skin irritation or burns. May cause severe respiratory and gastrointestinal tract irritation.

Target Organs: Eyes, skin, respiratory system, teeth

Potential Health Effects

Eye:
Causes eye irritation or burns. May cause chemical conjunctivitis and corneal damage.

Skin:
Causes skin irritation or burns.

Ingestion:
May cause severe irritation or burns to the gastrointestinal tract. May cause systemic effects.

Inhalation:
May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath, and pulmonary edema.
Chronic:
Chronic exposure may result in dental erosion and respiratory disease.

Section 4 - First Aid Measures

Eyes:
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid at once. Do NOT allow victim to rub or keep eyes closed.

Skin:
Get medical aid at once. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion:
Call a poison control center. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid at once.

Inhalation:
Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:
Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may be heavier than air and collect in low or confined areas. Reacts with most metals to form flammable hydrogen gas.

Extinguishing Media:
For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:
Not applicable.

Flash Point:
Not applicable.

NFPA Rating:
Health- 2, Flammability- 0, Instability- 0.

Explosion Limits:
Lower: n/a  Upper: n/a

Section 6 - Accidental Release Measures

General Information:
Use proper personal protective equipment as indicated in Section 8.
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Spills/Leaks:
Absorb spill with inert material (vermiculite, sand, diatomaceous earth), and place in suitable containers labeled for disposal. Clean up spills immediately, observing precautions in Protective Equipment section.

Section 7 - Handling and Storage

Handling:
Use only in a well-ventilated area. Do not breathe vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes.

Storage:
Store in a cool, dry, well-ventilated area away from incompatible substances. Keep container closed when not in use.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations below the Permissible Exposure Limits.

Exposure Limits:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>NIOSH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
<tr>
<td>Nitric acid</td>
<td>2 ppm TWA; 4 ppm STEL</td>
<td>2 ppm TWA; 25 ppm IDLH</td>
<td>2 ppm TWA; 5 mg/m3 TWA</td>
</tr>
<tr>
<td>Strontium carbonate</td>
<td>none listed</td>
<td>none listed</td>
<td>none listed</td>
</tr>
</tbody>
</table>

OSHA Vacated PELs:
Nitric acid: 2 ppm TWA; 5 mg/m3 TWA

Personal Protective Equipment

Eyes:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:
Wear appropriate gloves to prevent skin exposure.

Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Respirators:
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State:</th>
<th>Clear liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor:</td>
<td>Odorless</td>
</tr>
</tbody>
</table>
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pH: Acidic (<1)
Vapor Pressure: Not available
Vapor Density: Not available
Evaporation Rate: Not available
Viscosity: Not available
Boiling Point: 105°C
Freezing/Melting Point: Not available
Decomposition Temperature: Not available
Solubility in water: Soluble
Specific Gravity/Density: 1.03
Molecular Formula: Not applicable
Molecular Weight: Not applicable

Section 10 - Stability and Reactivity

Chemical Stability:
Stable under normal temperatures and pressures.

Conditions to Avoid:
Incompatible materials, excess heat.

Incompatibilities with Other Materials:
Strong acids, strong bases.

Hazardous Decomposition Products:
Nitrogen oxides.

Hazardous Polymerization:
Has not been reported.

Section 11 - Toxicological Information

RTECS:
CAS# 7732-18-5: ZC0110000.
CAS# 7697-37-2: QU5775000, QU5900000.
CAS# 1633-05-2: WK8305000.

LD50/LC50:
CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg.
CAS# 1633-05-2:
No information found.
CAS# 7697-37-2:
Inhalation, rat: LC50 = 67 ppm(NO2)/4H

Carcinogenicity:
CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 7697-37-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 1633-05-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:
No information found
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Teratogenicity:
No information found

Reproductive:
No information found

Mutagenicity:
No information found

Neurotoxicity:
No information found

Section 12 - Ecological Information
No information found

Section 13 - Disposal Considerations
Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT
Shipping Name: Corrosive liquid, acidic, inorganic, nos. (Nitric acid)
Hazard Class: 8
UN Number: UN3264
Packing Group: PG II

Section 15 - Regulatory Information

US Federal
TSCA:
CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7697-37-2 is listed on the TSCA Inventory.
CAS# 1633-05-2 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):
CAS# 7697-37-2: final RQ = 1000 pounds (454 kg)

CERCLA/SARA Section 313:
This material contains Nitric acid (CAS# 7697-37-2, 4%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous:
CAS# 7697-37-2 is considered highly hazardous by OSHA.

US State
State Right to Know:
Nitric acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
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California Regulations:
None.

European/International Regulations

Canadian DSL/NDSL:
- CAS# 7732-18-5 is listed on Canada's DSL List.
- CAS# 7697-37-2 is listed on Canada's DSL List.
- CAS# 1633-05-2 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:
- CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
- CAS# 7697-37-2 is listed on Canada's Ingredient Disclosure List.
- CAS# 1633-05-2 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: January 1, 2001
Revision Date: October 10, 2008

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