SAFETY DATA SHEET

1. Product and Company Identification

Sight & Sound Bear Deterrent Shell  # 767, 768

Orion Safety Products
3157 North 500 West
Peru, IN 46970

Use: Deter bear attack

EMERGENCY CHEMTREC 1-800-424-9300

2. Hazards Identification

Emergency Overview

Hazard Statements:
- Fire or projection hazard
- Causes severe skin burns and eye damage (product when burning)
- Causes skin irritation (contents)
- Harmful if inhaled.
- Causes eye irritation (contents)

Precautionary Statements:
- Keep out of reach of children.
- Keep away from heat/sparks/open flames/hot surfaces. – no smoking.
- Keep/Store away from combustible materials.
- Protect from moisture; avoid long term immersion in water
- Keep cool. Protect from sunlight.
- Do not expose long term to temperatures exceeding 150°F
- Avoid release to the environment.(contents)
- Use only outdoors.
- Wear eye protection.
- Do not dismantle.

NFPA Rating
- Flammability 2
- Health 1
- Reactivity 2

GHS Classifications
- Explosive Division 1.4
- Skin Corrosion / Irritation Product- Category 1A
- Contents - Category 2
- Serious Eye Damage / Irritation

HMSIS Rating
- Flammability 1
- Health 2
- Physical Hazard 2

3. Composition / Information on Ingredients

Component | CAS # | EINCS # | %age
--- | --- | --- | ---
Strontium Nitrate | 10042-76-9 | 233-131-9 | <75%
Magnesium | 7439-95-4 | 231-104-6 | <75%
Strontium Peroxide | 1314-18-7 | 215-224-6 | <75%

4. First Aid Measures

Inhalation If contents are inhaled, remove to fresh air. If not breathing, give artificial respiration and get medical aid.

Skin For burns, cool with water and bandage appropriately. If contents are contacted, wash with area with soap and water for 15 minutes. Remove contaminated clothing and wash before reuse. Get medical aid if burned or irritation occurs.

Eyes If burned, cover eye and get medical help immediately. If contents get into eye, flush with plenty of water for at least 15 minutes, occasionally lifting the up and lower lids. Remove contact lenses if easily possible Get medical aid immediately.

Ingestion Get medical aid immediately.

5. Firefighting Measures

Protective Equipment and Precautions for Firefighters Wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Prevent further propagation of fire by spraying unburnt nearby product with water. Combat fire from a sheltered position.

Specific Hazards Arising from the Chemical
- Only use outdoors. Use copious amounts of water to extinguish fire. Using small quantities of water on contents / broken shells can cause auto / re-ignition as contents contain magnesium. Use of water on a magnesium fire will generate hydrogen gas that may cause an explosion. Irritating fumes. Flaming projectiles may be ejected during a fire. Trace amounts of lead vapor may be produced (from ignition primer) in a fire situation.

Extinguishing Media Water Deluge
Unsuitable Extinguishing Media Foam and dry chemical extinguishers and suffocation are ineffective

Flashpoint Not Applicable
Flammability Limits Not Applicable
Ignition Temperature >150°F

6. Accidental Release Measures

Personal Precautions Do not breathe contents and avoid contact with skin and eyes. Wear flame retardant clothing with long sleeves, dust mask, rubber or nitrile gloves, safety goggles, safety shoes when cleaning up contents. Avoid friction on the released product. Keep away from ignition sources.

Environmental Precautions Prevent dispersion of contents on soil and in water. Prevent contents from spreading or entering into drains, ditches, groundwater or rivers by using appropriate barriers.

Methods for Containment and Clean-up

Use caution when cleaning up spilled product contents. Remove heat, flames, sparks and other sources of ignition. Use non-sparking tools and equipment. Prevent buildup of electrostatic charges by grounding. Clean spills in a manner that does not disperse dust into the air. Do not absorb in sawdust or other combustible absorbents. Pick up spill for recovery or disposal and place in an approved container. Wash away remainder with plenty of water. Collect wash water for approved disposal. Be very careful - magnesium powder may spontaneously ignite in presence of moisture. Magnesium
powder reacts with water, producing flammable hydrogen gas.

7. Handling and Storage

Handling
Use product only in designated launcher – do not attempt to use in 12 gauge shotgun. Point launcher away from body, other people, or combustible products when firing. Wear eye protection during use. Turn face from launcher when firing. Follow instructions on package. Avoid contact with clothing and other combustible materials. Use outdoors only! Do not ignite or launch product inside a vehicle or building. Avoid ingestion and inhalation of contents. Wash thoroughly after handling. Avoid contact with heat sparks, and flame. Do not disassemble signal.

Storage
Store in a dry place away from direct sunlight, flammable materials, sources of heat, flame, sparks and incompatible materials. Store away from food and beverages. Store at ambient temperature.

8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Exposure Limits</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Magnesium</td>
<td>15 mg/m³</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Strontium Peroxide</td>
<td>Nuisance dust 15 mg/m³</td>
<td>Nuisance dust 15 mg/m³</td>
</tr>
</tbody>
</table>

Engineering Controls
Use product outdoors only! When cleaning up contents, use local and/or general exhaust.

Eye / Face Protection
Turn face from launcher when firing. Wear safety glasses or goggles during use and when cleaning up spilled contents.

Skin Protection
None under normal conditions when using product unless prolonged handling is anticipated. When cleaning up spilled contents, wear impervious protective clothing, including gloves, boots, and a lab coat, apron or coveralls, as appropriate. Wash hands and face before eating, drinking or using tobacco products.

Respiratory Protection
None under normal conditions when using product. A particulate respirator (NIOSH T195 or better filters) may be worn during the cleanup of spilled contents.

General Hygiene
Use product outdoors away from combustible products. For cleanup of spilled contents, emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of hazardous materials. Maintain good housekeeping and safety practices. Do not let contents accumulate in storage or work areas. Clean spills up promptly.

9. Physical and Chemical Properties

Appearance (color, physical form, shape): Yellow plastic shotgun shell filled with grey material with primer on one end, all materials sealed / enclosed under normal conditions.

pH: Not available
Melting Point: Not available
Solubility: Not available
Boiling Point: Not applicable
Freezing Point: Not applicable
Evaporation Rate: Not applicable
Vapor Pressure: Not applicable
Specific Gravity: Not applicable
Vapor Density: Not applicable

10. Stability and Reactivity

Chemical Stability
Stable

Possibility of Hazardous Reactions
Hazardous polymerization will not occur.

Conditions to Avoid
Excessive temperatures, moisture, water, acids, and ignition sources.

Incompatible Materials

Hazardous Decomposition Products
Oxides of Strontium and Nitrogen

11. Toxicology Information

<table>
<thead>
<tr>
<th>Toxicology Information</th>
<th>Oral LD50</th>
<th>skin LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>Rat: 500 mg/kg</td>
<td>Not available</td>
<td>&gt; 12.5 mg/l</td>
</tr>
<tr>
<td>Magnesium</td>
<td>Rat: &gt;2000 mg/kg</td>
<td>Not available</td>
<td>Not available</td>
</tr>
<tr>
<td>Strontium Peroxide</td>
<td>Not available</td>
<td>Not available</td>
<td>Not available</td>
</tr>
</tbody>
</table>

Acute Dose Effects
Burning shell can cause severe burns if in contact with body - product burns at an extremely high temperature. Particles from firing may be harmful if inhaled. Contact with contents may cause moderate skin and eye irritation. Inhalation of contents will cause irritation to the lungs and mucus membrane.

Irritation
Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane.

Carcinogenicity
None of the ingredients are listed by NTP, IARC or regulated as a Carcinogen by OSHA

Genetic Effects
No information found

Developmental Effects
No information found

Target Organ Effects
Eye, skin and lungs

Repeated Dose Effects
No known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.

Corrosivity
May cause eye or skin burns if in contact with burning shell.

Reproductive Effects
No information found

Neurological Effects
No information found

Sensitization
No information found
12. Ecological Information

<table>
<thead>
<tr>
<th>Aquatic Toxicity</th>
<th>Persistence / Degradability</th>
<th>Bioaccumulation / Accumulation</th>
<th>Mobility in Environmental Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate: Acute toxicity - Fishes, Carassius auratus, LC100, 9,615 mg/l; Chronic toxicity - Fishes, Gasterosteus aculeatus, LC100, 2,912 mg/l</td>
<td>Can be eliminated from water by precipitation</td>
<td></td>
<td>Strontium Nitrate: Water: considerable solubility and mobility; Soil/sediments non-significant adsorption</td>
</tr>
<tr>
<td>Magnesium: Fishes Pimephales promelas LC50(96hr) 541 mg/l; Fishes, Daphina magna, LC50(48hr) 140 mg/l</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Disposal Considerations

Partially burned, unburned shells, spilled contents, and ash from burned shells should be disposed of in accordance with federal, state, and local requirements. Do not store partially burned shells in a vehicle, closed container, warehouse, or any other building.

14. Transportation Information

<table>
<thead>
<tr>
<th>shipping name</th>
<th>hazard class</th>
<th>ID Number</th>
<th>packing group</th>
<th>EX Number</th>
<th>Reportable Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States &amp; International</td>
<td>Articles, pyrotechnic for technical purposes</td>
<td>1.4G</td>
<td>UN0431</td>
<td>n/a</td>
<td>EX2013090761</td>
</tr>
</tbody>
</table>

15. Regulatory Information

<table>
<thead>
<tr>
<th>US Regulations</th>
<th>TSCA</th>
<th>CERCLA</th>
<th>CWA</th>
<th>CAA</th>
<th>SARA 313</th>
<th>SARA 302</th>
<th>Acute</th>
<th>Chronic</th>
<th>Fire</th>
<th>Reactivity</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Magnesium</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Strontium Peroxide</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US States</th>
<th>Prop 65</th>
<th>NJ</th>
<th>PA</th>
<th>Canada</th>
<th>WHMIS</th>
<th>DSL</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>No</td>
<td>1743</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnesium</td>
<td>No</td>
<td>1138</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strontium Peroxide</td>
<td>No</td>
<td>1740</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Other Information

Revision Information: January 2015

Risk and Safety Phrases:
- R12 Flammable
- R38 Irritating to skin (contents)
- R20 Harmful by inhalation.
- R21 Harmful in contact with skin.
- R22 Harmful if swallowed.
- R34 Causes burns.
- R35 Irritating to eyes.
- R37 Irritating to respiratory system.
- S17 Keep away from combustible material
- S19 Keep away from sources of ignition
- S2 Keep out of the reach of children.

Key / Legend:
- HMIS: hazardous material identification system
- NFPA: national fire protection association
- CAS: Chemical Abstracts Service number
- EINECS: European inventory of existing chemical substances
- OSHA PEL: occupational safety and health administration permissible exposure limit
- NIOSH TLV: national institute of occupational safety and health Threshold Limit Value
- NTP: National Toxicology Program
- IARC: International Agency for Research on Cancer
- TSCA: toxic substance control act - US
- CERCLA: comprehensive environmental response, compensation and liability act – US
- CWA: clean water act - US
- CAA: clean air act - US
- SARA: superfund amendments and reauthorization act – US
- PROP 65:California’s Proposition 65 list
- WHMIS: workplace hazardous materials information system – Canada
- C – oxidizing
- 02B - Material Causing Other Toxic Effects
- DSL: Domestic Substances List - Canada
- WGK: water hazard classes - Germany

Legal Statement:
This information is accurate to the best knowledge Orion Safety Products. Orion Safety Products makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability or fitness for a particular purpose, with respect to the information set forth herein or the product to which the information refers. Accordingly, Orion Safety Products will not be responsible for damages resulting from use of or reliance upon this information. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.