SAFETY DATA SHEET

EFFECTIVE DATE: 8/28/2017

ITEM: Coastal Alert/Locate Signal Kit

PART #    UPC
856       077403108565

CONTENTS:
Skyblazer II XLT SDS
Marine Hand Held Red Flare (HHRF) SDS

SHIPPING INFORMATION
UN0353, Articles, Explosive, n.o.s., 1.4G (ERG 114)
(contains strontium nitrate and magnesium)
EX2002110109
SAFETY DATA SHEET

Marine Hand Held Red Flare (HHRF)

1. Product and Company Identification

Identified Use: Emergency signal
Use Advised Against: Do not use indoors or inside of a vehicle

Manufacturers Information
Orion Safety Products
3157 North 500 West
Peru, IN 46970
US 1-800-851-5260
Intl (11) 1-765-472-4375

EMERGENCY
CHEMTREC
1-800-424-9300

2. Hazards Identification

GHS Classifications
Explosive Category 1.4 H204
Skin Irritation Category 2 H315
Eye Irritation Category 2A H319
STOT - Repeated Exposure Category 3 H335

GHS Label Elements
Pictograms
Signal Word Warning

Precautionary Statements
P103 Keep out of reach of children
P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P322 Protect from moisture
P261 Avoid breathing dust/fume
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Wear protective eye protection
P370 In case of fire: use water deluge

Hazard Not Otherwise Classified (HNOC): produces hot flame

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>EINCS #</th>
<th>%age</th>
</tr>
</thead>
</table>
| Strontium Nitrate        | 10042-76-9| 233-131-9  | >50%
| Sulfur                   | 7704-34-9 | 231-722-6  | <25%
| Potassium Perchlorate    | 7778-74-7 | 231-912-9  | <20%
| Polyethylene             | 9002-88-4 | none       | <5%
| Potassium Chlorate       | 3811-04-9 | 231-100-4  | <5%

Note: Due to Confidential Business Information, “Trade Secrets”, the exact percentage of each ingredient has not been disclosed. CBI information will be shared with appropriate authorities if circumstances warrant.

4. First Aid Measures

Description of first aid measures

Inhalation: If contents are inhaled, remove to fresh air. Watch for signs of allergic reaction. If other symptoms develop, get medical aid immediately.

Skin: 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 irritation occurs.

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

Ingestion: Get medical aid immediately.

Most important symptoms and effects both acute and delayed

See section 2 labeling and section 11

Indication of any immediate medical attention and special treatment needed

No data available

Aug 2017

Page 1 of 4
5. Firefighting Measures

<table>
<thead>
<tr>
<th>Extinguishing Media</th>
<th>Protective Equipment and Precautions for Firefighters</th>
<th>Unsuitable Extinguishing Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water deluge</td>
<td>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.</td>
<td>Foam and dry chemical extinguishers and suffocation are ineffective.</td>
</tr>
<tr>
<td>Specific Hazards Arising from the Chemical</td>
<td>Flame and sparks are ejected out the open end of the flare when it functions. Do not point flare at any part of the body or flammable material.</td>
<td></td>
</tr>
<tr>
<td>Further information</td>
<td>Precautions for Firefighters</td>
<td></td>
</tr>
</tbody>
</table>

6. Accidental Release Measures

**Personal Precautions / Protective Equipment / Emergency Procedures**
Do not breathe smoke or 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 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. When cleaning up contents, use local and/or barriers.

7. Handling and Storage

**Precautions for Safe Handling**
Hold and point signal away from body when igniting. Hold signal downwind when burning. Avoid breathing smoke. Avoid contact with clothing and other combustible materials. Use outdoors only! Do not ignite or burn product inside a vehicle, boat cabin or building. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with skin and eyes. Avoid contact with heat sparks, and flame. Signals should be allowed to burn to completion. Unburned and partially burned signals contain potassium perchlorate which should not be allowed to come into contact with surface and ground water. Perchlorate Material – special handling may apply. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).

**Conditions for Safe Storage, Including Any Incompatibilities**
Store in a dry place away from direct sunlight, heat and incompatible materials. Store away from food and beverages. Store away from flammable materials, sources of heat, flame and sparks. Store at ambient temperature. Do not store partially burned signals in a vehicle, boat, closed container, warehouse, or any other building.

8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Control parameters</th>
<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>
<td>Not established</td>
</tr>
<tr>
<td>Sulfur</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Potassium Perchlorate</td>
<td>Nuisance dust 15 mg/m²</td>
<td>Nuisance dust 15 mg/m²</td>
<td></td>
</tr>
<tr>
<td>Polyethylene</td>
<td>15 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
<td>Not established</td>
</tr>
<tr>
<td>Potassium Chlorate</td>
<td>Not established</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

**Exposure controls**
Use product outdoors only! When cleaning up contents, use local and/or general exhaust.

**Personal Protective Equipment**
- **Eye / Face Protection**: Safety glasses or goggles
- **Skin Protection**: None under normal conditions when using product unless prolonged handling is anticipated. Impervious protective clothing, including gloves, boots, and a lab coat, apron or coveralls, as appropriate, when cleaning up spilled product. Wash hands and face before eating, drinking or using tobacco products
- **Respiratory Protection**: None under normal conditions when using product. A particulate respirator (NIOSH R95 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.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Appearance (color, physical form, shape):</th>
<th>Melting Point:</th>
<th>Solubility:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grey powder</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>pH: No data available</td>
<td>Not applicable</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point / Range:</td>
<td>Freezing Point:</td>
<td>Evaporation Rate:</td>
</tr>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Specific Gravity:</td>
<td>Vapor Density:</td>
</tr>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Odor: No data available</td>
<td>Odor Threshold:</td>
<td>Flash Point:</td>
</tr>
<tr>
<td></td>
<td>No data available</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Flammability Limits:</td>
<td>Relative Density:</td>
</tr>
<tr>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition Coefficient:</td>
<td>Viscosity:</td>
<td>Decomposition Temperature:</td>
</tr>
<tr>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>
# 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Conditions to Avoid</th>
<th>Incompatible Materials</th>
<th>Hazardous Decomposition Products</th>
</tr>
</thead>
</table>

## 11. Toxicology Information

<table>
<thead>
<tr>
<th>Ingredient acute toxicity information</th>
<th>Oral LD50</th>
<th>skin LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>Rat: 1892 mg/kg</td>
<td>not stated</td>
<td>not stated</td>
</tr>
<tr>
<td>Sulfur</td>
<td>Rat: 5050 mg/kg</td>
<td>Rat &gt; 2020 mg/kg</td>
<td>Rat &gt; 5.49 mg/L air concentration</td>
</tr>
<tr>
<td>Potassium Perchlorate</td>
<td>Rat: 2100 mg/kg</td>
<td>not stated</td>
<td>not stated</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>Rat: 4000 mg/kg</td>
<td>not stated</td>
<td>not stated</td>
</tr>
<tr>
<td>Potassium Chlorate</td>
<td>Rat: 1870 mg/kg</td>
<td>2000 mg/kg (Rabbit)</td>
<td>No information found</td>
</tr>
</tbody>
</table>

### Product toxicological information

- **Acute Toxicity**: Not classified – Acute Toxicity Estimate yields oral LD<sub>50</sub> over 5000 mg/kg bw
- **Skin Irritation / Corrosion**: Category 2 – over 10% of ingredients classified as a Category 2 skin irritant
- **Serious Eye Damage / Irritation**: Category 2A – over 10% of ingredients classified as a Category 2A eye irritant
- **Respiratory / Skin Sensitization**: Not classified (Based on available data, the classification criteria are not met)
- **Germ Cell Mutagen**: Not classified (Based on available data, the classification criteria are not met)
- **Carcinogen**: Not classified (Based on available data, the classification criteria are not met)
- **Reproductive Toxicity**: Not classified (Based on available data, the classification criteria are not met)
- **STOT – single exposure**: Not classified (Based on available data, the classification criteria are not met)
- **STOT – repeated exposure**: Not classified (Based on available data, the classification criteria are not met)
- **Aspiration Hazard**: No information found

### Likely routes of exposure

- Inhalation of contents or smoke from burning flare will cause irritation to the lungs and mucus membrane. Prolonged or repeated skin contact with contents may cause dermatitis.

### Symptoms related to the physical, chemical and toxicological characteristics

- Contents irritating to eyes due to chemical and physical properties of the mixture. Inhalation of contents may cause gastrointestinal irritation with nausea, vomiting and diarrhea. Individuals with known allergies to sulfide drugs may also have allergic reactions to elemental sulfur.

### Delayed and immediate effects and chronic effects from short and long term exposure

#### Interactive effects

- Inhalation of contents or smoke from burning flare will cause irritation to the lungs and mucus membrane. Prolonged or repeated skin contact with contents may cause dermatitis.

### 12. Ecological Information

<table>
<thead>
<tr>
<th>Ingredient toxicity / persistence / degradability / bioaccumulation / mobility in soil and water</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aquatic Toxicity</strong></td>
</tr>
<tr>
<td>Potassium Chlorate: fish: LC50 oncorhynchus mykiss (rainbow trout) 1750 mg/l – 96 hr, EC50 daphnia magna (water flea) 1093 mg/l 24 hr</td>
</tr>
<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>
</tr>
<tr>
<td>Sulfur: Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) – &gt; 180 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) – &gt; 5,000 mg/l - 48 h</td>
</tr>
<tr>
<td><strong>Persistence / Degradability</strong></td>
</tr>
<tr>
<td>No information found</td>
</tr>
<tr>
<td><strong>Bioaccumulation / Accumulation</strong></td>
</tr>
<tr>
<td>No information found</td>
</tr>
<tr>
<td><strong>Mobility in Environmental Media</strong></td>
</tr>
<tr>
<td>Strontium Nitrate: Water considerable solubility and mobility; Soil/sediments non-significant adsorption.</td>
</tr>
<tr>
<td><strong>Other adverse effects</strong></td>
</tr>
<tr>
<td>No information found</td>
</tr>
</tbody>
</table>

### 13. Disposal Considerations (for spills and leakage)

Dispose of contaminated product and materials used in cleaning up spills or leaks in the manner approved for pyrotechnic material. Consult appropriate federal, state, and local regulatory agencies to ascertain proper disposal procedures. Open burning is preferred method of disposal for pyrotechnic materials. Refer to California Code of Regulations, Title 33, Sections 67384.1-67384.10 for additional information on handling and disposal of potassium perchlorate containing materials.

### 14. Transportation Information

<table>
<thead>
<tr>
<th>Domestic &amp; International</th>
<th>ID Number</th>
<th>shipping name</th>
<th>hazard class</th>
<th>packing group</th>
<th>EX Number</th>
<th>Reportable Quantities</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN0373</td>
<td>Signal Devices, Hand</td>
<td>1.4S</td>
<td>n/a</td>
<td>EX1986040106</td>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>

**Marine Pollutant**: no

Special precautions for user: No information available

### 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>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Sulfur</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>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Potassium Perchlorate</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>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Polyethylene</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>yes</td>
<td>no</td>
</tr>
<tr>
<td>Potassium Chlorate</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>no</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

**TSCA**

- yes
- no

**CERCLA**

- yes
- no

**CWA**

- no
- no

**CAA**

- no
- no

**SARA 313**

- no
- no

**SARA 302**

- no
- no

**Acute**

- yes
- no

**Chronic**

- no
- no

**Fire**

- no
- no

**Reactivity**

- yes
- no

**Pressure**

- yes
- no
### Other Information

#### Revision Information

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>HMIS Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flammability</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Reactivity</strong></td>
<td>1</td>
</tr>
</tbody>
</table>

### 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
- **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
- **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.
SAFETY DATA SHEET

1. Product and Company Identification

Skyblazer II, XLT and XLT, Twin
SAR Red Aerial Signal
Orion Safety Products
3157 North 500 West
Peru, IN 46970
Use: Emergency signal

Phone Number:
US 1-800-851-5260
Intl (11) 1-765-472-4375
CHEMTREC 1-800-424-9300

2. Hazards Identification

Emergency Overview

<table>
<thead>
<tr>
<th>Hazard Statements</th>
<th>NFPA Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire or projection hazard</td>
<td>Flammability 2</td>
</tr>
<tr>
<td>Causes severe skin burns and eye damage (product when burning)</td>
<td>Health 2</td>
</tr>
<tr>
<td>Caused skin and eye irritation (contents)</td>
<td>Reactivity 1</td>
</tr>
<tr>
<td>Harmful if ingested or swallowed</td>
<td>HMIS Rating</td>
</tr>
<tr>
<td>Precautionary Statements</td>
<td></td>
</tr>
<tr>
<td>Keep out of reach of children.</td>
<td>Flammability 1</td>
</tr>
<tr>
<td>Keep away from heat/sparks/open flames/hot surfaces. – no smoking.</td>
<td>Health 3</td>
</tr>
<tr>
<td>Keep away from combustible materials.</td>
<td>Physical Hazard 1</td>
</tr>
<tr>
<td>Keep dry.</td>
<td></td>
</tr>
<tr>
<td>Keep cool. Do not expose long term to temperatures exceeding 167°F</td>
<td></td>
</tr>
<tr>
<td>Avoid breathing dust/smoke</td>
<td></td>
</tr>
<tr>
<td>Use only outdoors. Do not ignite inside a building, vehicle or boat cabin.</td>
<td></td>
</tr>
<tr>
<td>Wear eye protection.</td>
<td></td>
</tr>
<tr>
<td>Do not dismantle.</td>
<td></td>
</tr>
<tr>
<td>In case of fire: use water deluge. Do not use dry powder or foam extinguishers!</td>
<td></td>
</tr>
</tbody>
</table>

GHS Classifications

<table>
<thead>
<tr>
<th>Type</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive</td>
<td>Division 1.4</td>
</tr>
<tr>
<td>Acute Toxicity</td>
<td>Category 5</td>
</tr>
<tr>
<td>Skin Corrosion / Irritation</td>
<td>Product- Category 1A</td>
</tr>
<tr>
<td>Contents - Category 2</td>
<td></td>
</tr>
<tr>
<td>Contents - Category 2B</td>
<td></td>
</tr>
<tr>
<td>Serious Eye Damage / Irritation</td>
<td></td>
</tr>
</tbody>
</table>

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>EINCS #</th>
<th>%age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>10042-76-9</td>
<td>233-131-9</td>
<td>&lt;50%</td>
</tr>
<tr>
<td>Magnesium</td>
<td>7439-95-4</td>
<td>231-104-6</td>
<td>&lt;50%</td>
</tr>
<tr>
<td>Strontium Peroxide</td>
<td>1314-18-7</td>
<td>215-224-6</td>
<td>&lt;50%</td>
</tr>
<tr>
<td>Polyvinyl chloride</td>
<td>9002-86-2</td>
<td>none</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>Black Powder mixture</td>
<td>mixture</td>
<td>mixture</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>Dextrin</td>
<td>9004-53-9</td>
<td>232-675-4</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>Primer n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

4. First Aid Measures

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

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 burnt or irritation occurs.

If inhaled, cover face and get medical aid immediately. If smoke or 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.

Skin

Eyes

Ingestion

5. Firefighting Measures

Extinguishing Media
Water Deluge
Foam and dry chemical extinguishers are ineffective

Unsuitable Extinguishing Media
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 product 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.

Flashpoint Not Applicable
Flammability Limits Not Applicable
Ignition Temperature >180°F

6. Accidental Release Measures

Personal Precautions
Do not breathe smoke or 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. Contains strong dyes which will color all exposed areas.

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.

XLT SAR red Page 1 of 3 Aug 2017
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
Point product away from body, other people, animals or combustible products when firing. Wear appropriate eye protection when using. Follow instructions on package! Do not disassemble signal. Avoid contact with clothing and other combustible materials. Use outdoors only. Do not remove bottom cap unless you are outdoors and preparing to activate signal. Do not ignite or launch product inside a vehicle, boat cabin, or building. Avoid ingestion and inhalation of smoke and contents. Wash thoroughly after handling. Avoid contact with heat, sparks, and flame.

Storage
Store in a cool area out of direct sunlight. Do not allow long-term exposure to temperatures in excess of 180°F. Avoid long-term immersion in water, exposure to moisture, open flames or extremely high temperature. Store away from flammable materials, sources of heat, flame and sparks. Do not store partially burned signals in a vehicle, boat, closed container, warehouse, or any other building.

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>unknown</td>
<td>unknown</td>
</tr>
<tr>
<td>Strontium Peroxide</td>
<td>nuisance dust 15 mg/m³</td>
<td>nuisance dust 15 mg/m³</td>
</tr>
<tr>
<td>Polyvinyl chloride</td>
<td>5 mg/ml for the respirable portion and 15 mg/ml for total dust.</td>
<td>5 and 10 mg/ml, respectively</td>
</tr>
<tr>
<td>Black Powder</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Dextrin</td>
<td>15 mg/m³ total dust</td>
<td>10 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 product when firing. Wear safety glasses or goggles during use and when cleaning up spilled contents. 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): | Orange plastic tube. |
| ph: | Not available |
| Boiling Point | Not applicable |
| Vapor Pressure | Not applicable |
| Melting Point: | >500°F |
| Freezing Point: | Not applicable |
| Specific Gravity | Not applicable |
| Solubility: | Slight |
| Evaporation Rate: | Not applicable |
| Vapor Density: | Not applicable |

10. Stability and Reactivity

Chemical Stability
Stable

Possibility of Hazardous Reactions
Hazardous polymerization will not occur.

Incompatible Materials
Strong oxidizers, strong acids, oxidizing or reducing agents. Liquid acids of any kind. Hydrogen Fluoride, avoid exposure to organic solvents which might weaken the signal body.

Hazardous Decomposition Products
Carbon monoxide, Nitrous oxides, Carbon dioxide, Magnesium hydroxides and oxides

11. Toxicology Information

<table>
<thead>
<tr>
<th>Toxicology</th>
<th>Oral LD50</th>
<th>skin LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>Rat 2750 mgkg</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Magnesium</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Strontium Peroxide</td>
<td>Not Established</td>
<td>Not Established</td>
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<td>Not Established</td>
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<tr>
<td>Dextrin</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
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</tbody>
</table>
Acute Dose Effects

Burning signal 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 smoke or contents will cause irritation to the lungs and mucus membrane. Exposure to smoke during use may aggravate asthma if inhaled.

Irritation

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

Carcinogenicity

No information found

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 signal.

Reproductive Effects

No information found

Neurological Effects

No information found

Sensitization

No information found

IARC: International Agency for Research on Cancer

NTP: National Toxicology Program

OSHA PEL: occupational safety and health administration permissible exposure limit

NFPA: national fire protection association

NFPA: national fire protection association

CAS: Chemical Abstracts Service number

EINECS: European inventory of existing chemical substances

EINECS: European inventory of existing chemical substances

SARA: security and health administration permissible exposure limit

OSH: health and safety administration permissible exposure limit

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

Key / Legend:

HMI: 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

NTP: National Toxicology Program

IARC: International Agency for Research on Cancer

US Regulations

US States

Prop 65

NJ

PA

Strontium Nitrate

no

1743

no

Strontium Perioxide

no

1740

no

Polyvinyl chloride

no

3622

no

Black Powder

mixture

mixture

mixture

Dextrin

no

no

no

Canada

WHMIS

DSL

Europe

wgk

No results

yes

2

No results

yes

nwg

No results

yes

no

Mixtures

Mixture

Mixture

Mixture

No results

yes

1

Revision Information: October 2016

Risk and Safety Phrases:

R12 Flammable

R13 Harmful in contact with skin.

R14 Harmful in contact with skin.

R15 Harmful if inhaled.

R17 Harmful if swallowed.

S18 Keep container dry.

S19 Keep away from food, drink and animal foodsstuffs.

S22 Avoid contact with skin.

S23 Avoid contact with eyes.

S24 Avoid contact with skin.

S25 Avoid contact with eyes.

S26 If not empty into drains.

S27 In case of fire and / or explosion do not breathe fumes

S28 Keep container dry.

S37 Keep away from combustible materials.

S39 Keep out of the reach of children.

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