SAFETY DATA SHEET

Effective Date: JULY 2019

ITEM: Coastal Alert / Locate Signaling Kit with 1st Aid

PART # 549          UPC 077403105496

Contents
SDS for each of the following
12 Ga HP Red Aerial Signal
Marine Hand Held Red Flare (HHRF)
Marine Hand Held Orange Smoke Signal (HHOS)
1st Aid Kit Contents
Alcohol Wipes, Antiseptic Towelettes,
1st Aid/Burn Cream, Sting Relief Pads

SHIPPING INFORMATION
UN0353, Articles, explosive, n.o.s., 1.4G (ERG 114)
(contains strontium nitrate and magnesium)
EX2004110274
SAFETY DATA SHEET

1. Product and Company Identification

12 Ga HP (High Performance) Red Aerial Signal

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

Manufacturer’s Information: Orion Safety Products
3157 N 500 W
Peru, Indiana 46970
US 1-800-851-5260
Int’l (11) 1-765-472-4375

2. Hazards Identification

GHS Classifications
Explosive Category 1.4
Skin Irritation Category 2
Eye Irritation Category 1
Carcinogenicity Category 2
STOT-Single Exposure Category 3

GHS Label Elements

Hazard Statements
H204 Fire or projection hazard
H315 Causes skin irritation
H318 Causes serious eye damage
H351 Suspected of causing cancer
H335 May cause respiratory irritation

Signal Word Danger

Precautionary Statements
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P210 No smoking
P232 Protect from moisture
P261 Avoid breathing dust/fumes.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors.
P280 Wear protective eye protection.

Hazard Not Otherwise Classified (HNOC): none

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>EINCS #</th>
<th>Percentage</th>
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<tr>
<td>High Density Polyethylene</td>
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<td>Talc</td>
<td>14807-96-6</td>
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<td>Strontium Nitrate</td>
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<tr>
<td>Magnesium</td>
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<td>Strontium Peroxide</td>
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<td>&lt;5%</td>
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<tr>
<td>Aluminum</td>
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</tr>
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<td>Polyvinyl Chloride</td>
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<td>232-675-4</td>
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<td>Dextrin</td>
<td>9004-53-9</td>
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<tr>
<td>Potassium Nitrate</td>
<td>7757-79-1</td>
<td>240-383-3</td>
<td>&lt;1%</td>
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<tr>
<td>Coal</td>
<td>16291-96-6</td>
<td>231-722-6</td>
<td>&lt;2%</td>
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<td>Sulfur</td>
<td>7704-34-9</td>
<td>231-096-4</td>
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<td>Iron</td>
<td>1309-37-1</td>
<td>231-159-8</td>
<td>&lt;3%</td>
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<tr>
<td>Copper</td>
<td>7440-50-8</td>
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</table>

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.

12 Ga HP July 2019
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 water and soap. Remove contaminated clothing and wash before reuse. Get medical aid if irritation occurs.

**Eyes**  If contents get into eyes, 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**

**Indication of any immediate medical attention and special treatment needed**

5. Firefighting Measures

**Extinguishing Media**

- Water deluge
- Unsuitable Extinguishing Media: Foam and dry chemical extinguishers and suction are ineffective.

**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 quantity 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. Imitating fumes. Flaming projectiles may be ejected during a fire. Trace amounts of lead vapor may be produced (from ignition primer) in a fire situation.

**Further Information**

- No data available

6. Accidental Release Measures

**Personal Precautions / Protective Equipment / Emergency Procedures**

- Do not inhale smoke or contents. 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. Do not absorb in sawdust or other combustible absorbents. Pick up spill for recovery of 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

**Precautions for Safe Handling**

- Use product only in designated launcher – do not attempt to use in 12 gauge shotgun. Point launcher away from body, other people, animals or combustible products when firing. Wear appropriate 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 of smoke and inhalation of contents. Wash thoroughly after handling. Avoid contact with heat sparks, and flame. Do no disassemble signals.

**Conditions for Safe Storage, Including Any Incompatibilities**

- Store in a dry place away from direct sunlight, heat and incompatible materials. See section 10. Store away from food and beverages. Store away from flammable materials, sources of heat, flame and sparks. Store at ambient temperature.

8. Exposure Controls / Personal Protection

<table>
<thead>
<tr>
<th>Control Parameters</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exposure Limits</strong></td>
<td><strong>OSHA PEL</strong></td>
<td><strong>ACGIH TLV</strong></td>
</tr>
<tr>
<td>High Density Polyethylene</td>
<td>5mg/ml for respirable portion and 15mg/ml for total dust</td>
<td>3mg/ml for respirable portion and 10mg/ml for total dust</td>
</tr>
<tr>
<td>Talc</td>
<td>0.2 mg/m³</td>
<td>2.0 mg/m³</td>
</tr>
<tr>
<td>Strontium Nitrate</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Magnesium</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Strontium Peroxide</td>
<td>Nuisance dust 15mg/m³</td>
<td>Nuisance dust 15mg/m³</td>
</tr>
<tr>
<td>Aluminum</td>
<td>TWA: 15 mg/m³</td>
<td>TWA: 1 mg/m³</td>
</tr>
<tr>
<td>Polyvinyl Chloride</td>
<td>5mg/ml for respirable portion and 15mg/ml for total dust</td>
<td>5 and 10 mg/ml, respectively</td>
</tr>
<tr>
<td>Dextrin</td>
<td>15 mg/m³</td>
<td>15 mg/m³</td>
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<tr>
<td>Charcoal</td>
<td>3.5 mg/m³</td>
<td>3 mg/m³</td>
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<tr>
<td>Sulfur</td>
<td>20 ppm</td>
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<tr>
<td>Potassium Nitrate</td>
<td>15 mg/m³</td>
<td>10 mg/m³</td>
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<tr>
<td>Iron</td>
<td>TWA: 10 mg/m³</td>
<td>Not Established</td>
</tr>
<tr>
<td>Copper</td>
<td>0.1 mg/m³(fume) 1 mg/m³(dusts and mists)</td>
<td>0.2 mg/m³(fume), 1 mg/m³ (dusts and mists)</td>
</tr>
</tbody>
</table>

12 Ga HP  July  2019
Exposure Controls
Use product outdoors only! When cleaning up contents, use local and/or general exhaust.

Engineering Controls

Personal Protective Equipment

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 type N195 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): Grey powder
pH: No data available
Boiling Point / Range: No data available
Vapor Pressure: Not applicable
Odor: No data available
Flammability: No data available
Partition Coefficient: No data available
Auto Ignition Temperature: No data available

10. Stability and Reactivity
Chemical Stability: Stable
Reactivity: No information available
Incompatible Materials: Reducing Agents, Organic Materials, Finely powdered metals, acids, water, Halogens
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Hazardous Decomposition Products: Strontium Oxides, Carbon Monoxide and Dioxide, Nitrous Oxides, Magnesium Hydroxides and Oxides.

11. Toxicology Information
Ingredient acute toxicity information

<table>
<thead>
<tr>
<th>Toxicology</th>
<th>Oral LD50</th>
<th>Skin LD50</th>
<th>LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Density Polyethylene</td>
<td>4000mg/kg</td>
<td>not available</td>
<td>12,000 mg/m³/30min</td>
</tr>
<tr>
<td>Talc</td>
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<td>not available</td>
<td>not available</td>
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<td>Strontium Nitrate</td>
<td>Rat 2750 mg/kg</td>
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<td>Magnesium</td>
<td>Rat 230 mg/kg</td>
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<td>not available</td>
</tr>
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<td>Strontium Peroxide</td>
<td>Rat 580 mg/kg</td>
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<td>Aluminum</td>
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<td>not available</td>
</tr>
<tr>
<td>Polyvinyl Chloride</td>
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</tr>
<tr>
<td>Dextrin</td>
<td>None Known</td>
<td>Not Sensitizing</td>
<td>None Known</td>
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<td>Potassium Nitrate</td>
<td>Rat 3015 mg/kg</td>
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<tr>
<td>Charcoal</td>
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<td>Rabbit &gt;3000 mg/kg</td>
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<tr>
<td>Sulfur</td>
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<td>Rabbit &gt;2000 mg/kg</td>
<td>Rat 9.23 mg/l/4hr</td>
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<td>Iron</td>
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<tr>
<td>Copper</td>
<td>Rat 5800 mg/kg</td>
<td>not available</td>
<td>not available</td>
</tr>
</tbody>
</table>

Product toxicological information

Acute Toxicity Not classified – Acute Toxicity Estimate yields oral LD50 over 5000 mg/kg bw 17% unknown
Skin Irritation / Corrosion Category 2 – over 0.1% of ingredients classified as a Category 2 skin irritant
Serious Eye Damage / Irritation Category 1 – over .01% of ingredients classified as a Category 1 eye irritant
Respiratory / Skin Sensitization No information found
Germ Cell Mutagen No information found
Carcinogen Category 2 – over 0.1% of ingredients classified as a Category 2 carcinogens
Reproductive Toxicity No information found
STOT – single exposure No information found
STOT – repeated exposure No information found
Aspiration Hazard No information found
Likely routes of exposure Skin, ingestion, inhalation
Symptoms related to the physical, chemical and toxicological characteristics Irritation to the eyes will cause watering and redness. Reddening, swelling, and itching are characteristics of skin inflammation. Ingestion of contents may cause gastrointestinal irritation with nausea, vomiting and diarrhea. Inhalation will cause irritation to the lungs and mucus membrane. Absorption of strontium peroxide into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.
Delayed and immediate effects and chronic effects from short and long term exposure Prolonged or repeated skin contact with contents may cause dermatitis.
Interactive effects No information found
12. Ecological Information

**Ingredient toxicity / persistence / degradability / bioaccumulation / mobility in soil and water**

**Aquatic Toxicity**
- Strontium Nitrate: Acute toxicity - Fishes, Carassius auratus, LC100, 9,615 mg/l; Chronic toxicity - Fishes, Gasterosteus aculeatus, LC100, 2,912 mg/l
- Magnesium: LC50 1355 mg/l fish

**Persistence / Degradability**
- No information found

**Bioaccumulation / Accumulation**
- No information found

**Mobility in Environmental Media**
- Strontium Nitrate: Water: considerable solubility and mobility; Soil/sediments non-significant adsorption

**Other adverse effects**
- No information found

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.

14. Transportation Information

<table>
<thead>
<tr>
<th>Domestic &amp; International</th>
<th>UN Number</th>
<th>Proper Shipping Name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>EX Number</th>
<th>Reportable Quantities</th>
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<tbody>
<tr>
<td>Marine pollutant: no</td>
<td>UN0403</td>
<td>Flares, aerial</td>
<td>1.4G</td>
<td>n/a</td>
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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>
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<th>US States</th>
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<th>PA</th>
<th>Canada</th>
<th>WHMIS</th>
<th>DSL</th>
<th>Europe</th>
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<td>HD Polyethylene</td>
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<td>yes</td>
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<td>yes</td>
<td>Canada</td>
<td>Not Controlled</td>
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<tr>
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<td>yes</td>
<td>yes</td>
<td>B6 Reactive flammable material; B4 Flammable solid;</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Polyvinyl Chloride</td>
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<td>C oxidizing material</td>
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<tr>
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<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>B4 Flammable solid</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>B4 Flammable solid</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12 Ga HP July 2019
16. Other Information

Revision Information: July 2019

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>HMIS Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>2 Flammability 1</td>
</tr>
<tr>
<td>Health</td>
<td>2 Health 3</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1 Physical Hazard 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
- NIOSH TLV: national institute of occupational safety and health Threshold Limit Value
- NTP: National Toxicology Program
- IARC: International Agency for Research on Cancer
- CWA: clean water act - US
- CERCLA: comprehensive environmental response, compensation and liability 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

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SAFETY DATA SHEET

1. Product and Company Identification

Marine Handheld Red Flare (HHRF)

Identified Use: Emergency signal

Use Advised Against: Do not use indoors or inside of a vehicle.

Manufacturer's Information: Orion Safety Products
3157 N 500 W
Peru, Indiana 46970
US 1-800-851-5260
Int'l (11) 1-765-472-4375

2. Hazards Identification

GHS Classifications
Explosive Category 1.4
Skin Irritation Category 2
Eye Irritation Category 2A
STOT—Single Exposure Category 3

GHS Label Elements
Hazard Statements
H204 Fire or projection hazard
H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Pictograms
Signal Word Warning

Precautionary Statements
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions
P210 No smoking
P232 Protect from moisture
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors.
P280 Wear protective eye protection.

Hazard Statements 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>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>10042-76-9</td>
<td>233-131-6</td>
<td>&lt;50%</td>
</tr>
<tr>
<td>Sulfur</td>
<td>7704-34-9</td>
<td>231-722-6</td>
<td>&lt;25%</td>
</tr>
<tr>
<td>Potassium Perchlorate</td>
<td>7778-74-7</td>
<td>231-912-9</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>9002-88-4</td>
<td>none</td>
<td>&lt;5%</td>
</tr>
<tr>
<td>Potassium Chlorate</td>
<td>3811-04-9</td>
<td>231-100-4</td>
<td>&lt;5%</td>
</tr>
</tbody>
</table>

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 eyes, 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

Indication of any immediate medical attention and special treatment needed

See section 2 labeling and section 11

No data available
5. Firefighting Measures

<table>
<thead>
<tr>
<th>Extinguishing Media</th>
<th>Water deluge</th>
<th>Unsuitable Extinguishing Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protective Equipment and</td>
<td>Foam and dry chemical extinguishers and suffocation are ineffective.</td>
<td></td>
</tr>
<tr>
<td>Precautions for Firefighters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Hazards Arising</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></td>
</tr>
<tr>
<td>from the Chemical Further Information</td>
<td>Only use outdoors. 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>No data available</td>
</tr>
</tbody>
</table>

6. Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures
Do not breathe smoke or contents. 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 general exhaust. Clean up avoiding dust generation and place in a well identified container. Do not absorb in sawdust or other combustible absorbents. Wash away remainder with plenty of water. Collect wash water for approved disposal.

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.

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

Control Parameters

<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>Sulfur</td>
<td>Not established</td>
<td>Not established</td>
</tr>
<tr>
<td>Potassium Perchlorate</td>
<td>Nuisance dust, 15 mg/m³</td>
<td>Nuisance dust, 15 mg/m³</td>
</tr>
<tr>
<td>Polyethylene</td>
<td>15 mg/m³ TWA</td>
<td>10 mg/m³ TWA</td>
</tr>
<tr>
<td>Potassium Chlorate</td>
<td>Not established</td>
<td>Not established</td>
</tr>
</tbody>
</table>

Exposure Controls

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

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 T N95 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

<table>
<thead>
<tr>
<th>Appearance (color, physical form, shape):</th>
<th>Grey powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH: No data available</td>
<td>Melting Point: No data available</td>
</tr>
<tr>
<td>Boiling Point / Range: Not applicable</td>
<td>Freezing Point: Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure: Not applicable</td>
<td>Specific Gravity: Not applicable</td>
</tr>
<tr>
<td>Odor: No data available</td>
<td>Odor Threshold: No data available</td>
</tr>
<tr>
<td>Flammability: No data available</td>
<td>Flammability Limits: No data available</td>
</tr>
<tr>
<td>Partition Coefficient: No data available</td>
<td>Viscosity: No data available</td>
</tr>
<tr>
<td>Auto Ignition Temperature: No data available</td>
<td>Decomposition Temperature: No data available</td>
</tr>
</tbody>
</table>

HHRF  Aug 2017
10. Stability and Reactivity

**Chemical Stability:** Stable
**Reactivity:** No information available
**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid**
Combustible materials, heat, flames, sparks and other sources of ignition. Moisture.

**Incompatible Materials**
Strong acids, strong fuels, ammonia salts and strong bases.

**Hazardous Decomposition Products**
Carbon monoxide, carbon dioxide, sulfur oxides and nitrogen oxides.

11. Toxicology Information

**Ingredient acute toxicity 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: 1982 mg/kg</td>
<td>Not stated</td>
<td>Not stated</td>
</tr>
<tr>
<td>Sulfur</td>
<td>Rat: 5060 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: 4000 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 LD50 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**: Category 3 – respiratory-over 10% of ingredients classified as a Category 3 respiratory STOT hazard
- **Aspiration Hazard**: Not classified (Based on available data, the classification criteria are not met)
- **Likely routes of exposure**: Skin, ingestion, inhalation
- **Symptoms related to the physical, chemical and toxicological characteristics**: Contents irritating to eyes due to chemical and physical properties of the mixture. Ingestion 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. 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.
- **Delayed and immediate effects and chronic effects from short and long term exposure**: No information found
- **Interactive effects**: No information found

12. Ecological Information

**Ingredient toxicity / persistence / degradability / bioaccumulation / mobility in soil and water**

**Aquatic Toxicity**
Potassium Chlorate: fish: LC50 oncorhynchus mykiss (rainbow trout) 1750 mg/l – 96 hr, EC50 daphnia magna (water flea) 1093 mg/l 24 hr
Strontium Nitrate: Acute toxicity - Fishes, Carassius auratus, LC100, 9,615 mg/l; Chronic toxicity - Fishes, Gasterosteus aculeatus, LC100, 2.912 mg/l
Sulfur: Toxicity to fish LC50 – Oncorhynchus mykiss (rainbow trout) - > 180 mg/l – 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 – Daphnia magna (Water flea) - > 5,000 mg/l – 48 h

- **Persistence / Degradability**: No information found
- **Bioaccumulation / Accumulation**: No information found
- **Mobility in Environmental Media**: Strontium Nitrate: Water: considerable solubility and mobility; Soil/sediments non-significant adsorption
- **Other adverse effects**: No information found

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 the preferred method of disposal for pyrotechnic materials. Allow flares to burn to completion. 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>ID Number</th>
<th>Proper Shipping Name</th>
<th>Hazard Class</th>
<th>Packing Group</th>
<th>EX Number</th>
<th>Reportable Quantities</th>
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</thead>
<tbody>
<tr>
<td>Domestic &amp; International</td>
<td>UN0373</td>
<td>Signal devices, hand</td>
<td>1.4S</td>
<td>n/a</td>
<td>EX1986040106</td>
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<tr>
<td>Marine pollutant: no</td>
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15. Regulatory Information

<table>
<thead>
<tr>
<th>US Regulations</th>
<th>TS</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>no</td>
<td>yes</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>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>no</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>yes</td>
<td>no</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>no</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>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>no</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>DLS</th>
<th>Europe</th>
<th>Wgk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strontium Nitrate</td>
<td>no</td>
<td>1743</td>
<td>no</td>
<td>C Oxidizing materials</td>
<td>yes</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfur</td>
<td>no</td>
<td>1757</td>
<td>yes</td>
<td>B4 Flammable solid</td>
<td>yes</td>
<td>1 / nwg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium Perchlorate</td>
<td>no</td>
<td>1577</td>
<td>yes</td>
<td>C Oxidizing materials</td>
<td>yes</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyethylene</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>D1B Toxic materials</td>
<td>Not controlled</td>
<td>Not listed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potassium Chlorate</td>
<td>no</td>
<td>1560</td>
<td>yes</td>
<td>C Oxidizing materials</td>
<td>D1B Toxic materials</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Other Information

Revision Information: March 2019

Key / Legend
- 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
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- TSCA: toxic substance control act - US
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- PROP 65: California’s Proposition 65 list
- WHMIS: workplace hazardous materials information system - Canada
- DSL: Domestic Substances List - Canada
- WGK: water hazard classes - Germany

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SAFETY DATA SHEET

1. Product and Company Identification
Marine Hand Held Orange Smoke Signal (HHOS)

Identified Use: Emergency signal

Use Advised Against: Do not use indoors or inside of a vehicle.

Manufacturers Information: Orion Safety Products
3157 N 500 W
Peru, Indiana 46970
US 1-800-851-5260
Int’l (11) 1-765-472-4375

2. Hazards Identification

GHS Classifications
Explosive Category 1.4 H204
Skin Irritation Category 2 H315
Eye Irritation Category 2A H319
Skin Sensitization Category 1 H317
STOT-Repeated Exposure Category 1 H372

GHS Label Elements
Pictograms

Signal Word Danger

Precautionary Statements
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P210 No smoking
P261 Avoid breathing dust/fumes.
P284 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors.
P280 Wear protective eye protection.

Hazard Statements
H204 Fire or projection hazard
H315 Causes skin irritation
H319 Causes serious eye irritation
H317 May cause an allergic skin reaction
H372 Causes damage to lungs through prolonged or repeated exposure

Hazard Statements

In case of fire: use water deluge.
IF SWALLOWED: Get immediate medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation or rash occurs, get medical advice/attention.
Dispose of contents / container in accordance with local and national Regulations.

Hazard Not Otherwise Classified (HNOC): produces hot flame and copious amount of smoke

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>EINCS #</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Yellow Dye</td>
<td>842-07-9</td>
<td>212-666-2</td>
<td>&lt;40%</td>
</tr>
<tr>
<td>Lactose</td>
<td>63-42-3</td>
<td>200-556-2</td>
<td>&lt;40%</td>
</tr>
<tr>
<td>Potassium Chlorate</td>
<td>3811-04-9</td>
<td>231-100-4</td>
<td>&lt;25%</td>
</tr>
<tr>
<td>Solvent Orange 7 Dye</td>
<td>3118-07-6</td>
<td>221-490-4</td>
<td>&lt;20%</td>
</tr>
<tr>
<td>Strontium Carbonate</td>
<td>1633-05-2</td>
<td>216-643-7</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>1317-65-3</td>
<td>215-279-6</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Charcoal</td>
<td>7440-44-0</td>
<td>231-153-3</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Umber</td>
<td>12713-03-0</td>
<td>235-784-5</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Strontium Nitrate</td>
<td>10042-76-9</td>
<td>233-131-9</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Shellac</td>
<td>9000-59-3</td>
<td>232-549-9</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Potassium Nitrate</td>
<td>7757-79-1</td>
<td>231-818-8</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Sawdust (cellulose)</td>
<td>9004-34-6</td>
<td>232-674-9</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

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 soap and water for 15 minutes. Remove contaminated clothing and wash before reuse. Get medical aid if irritation occurs.

Eyes
If contents get into eyes, 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

5. Firefighting Measures

Extinguishing Media
Water deluge

Unsuitable Extinguishing Media
Foam and dry chemical extinguishers and suffocation are ineffective.

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. Contents / dust may form explosive mixtures. Flame and copious amounts of smoke are ejected out the open end of the signal when it functions. Do not point signal at any part of the body or flammable material.

Further Information
No data available

6. Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures
Do not breathe smoke or contents. 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.

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 general exhaust. Clean up avoiding dust generation and place in a well identified container. Do not absorb in sawdust or other combustible absorbents. Mop up exposed area with bleach to destroy color. Wash away remainder with plenty of water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for Safe Handling
Hold and point signal away from body when igniting. Hold signal downward 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. Contains strong dyes which will color all exposed areas. Signals should be allowed to burn to completion. Unburned and partially burned signals should not be allowed to come into contact with surface and ground water.

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

Control Parameters

OSHA PEL
No information found

ACGIH TLV
No information found

Exposure Limits

Solvent Yellow Dye
Lactose
Potassium Chlorate
Solvent Orange 7 Dye
Strontium Carbonate
Calcium Carbonate
Charcoal
Umbre
Strontium Nitrate
Shellac
Potassium Nitrate
Sawdust (cellulose)

Nuisance particulate, 15 mg/m³ of total dust
No airborne Exposure Limits established

15 mg/m³
15 mg/m³
Nuisance dust 15 mg/m³.
30 mg/m³
Not Established
1000 ppm
Nuisance dust 15 mg/m³.
5 mg/m³

Nuisance particulate 10 mg/m³ of total dust
No airborne Exposure Limits established

10 mg/m³
10 mg/m³
Nuisance dust 15 mg/m³.
No information found
Not Established
1000 ppm
Nuisance dust 15 mg/m³.
10 mg/m³
Exposure Controls

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

Eye / Face Protection
Safety glasses or goggles

Skin Protection
None under normal conditions when using product unless prolonged handling is anticipated. Contains strong dyes which will color all exposed areas. When cleaning up spilled contents, wear full length 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 N95 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): orange powder

pH: No data available

Boiling Point / Range: Not applicable

Vapor Pressure: Not applicable

Odor: No data available

Flammability: No data available

Partition Coefficient: No data available

Auto Ignition Temperature: >167°F

Chemical Stability:

Exposure Controls

Auto Ignition Temperature:

Stability and Reactivity

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

Incompatible Materials

Hazardous Decomposition Products
Carbon monoxide, carbon dioxide, nitrogen oxides.

10. Stability and Reactivity

Chemical Stability: Stable

Reactivity: No information available

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

11. Toxicology Information

Ingredient acute toxicity information

Toxicology

Oral LD50
Lactose: Rat: 10000 mg/kg
Potassium Chlorate: Rat: 1870 mg/kg
Solvent Orange 7 Dye: Rat: 5000 mg/kg
Strontium Carbonate: No information found
Calcium Carbonate: Rat: 6450 mg/kg
Charcoal: Rat: > 15400 mg/kg
Umber: No information found
Strontium Nitrate: Rat: 2750 mg/kg
Shellac: Rat: 5000 mg/kg
Potassium Nitrate: Rat: 3750 mg/kg
Sawdust (cellulose): Rat: > 5000 mg/kg

Skin LD50
No information found

LC50
No information found

Acute Toxicity
Skin Irritation / Corrosion
Category 1 – over 10% of ingredients classified as a Category 1 skin irritant
Serious Eye Damage / Irritation
Category 2A – over 10% of ingredients classified as a Category 2A eye irritant
Respiratory / Skin Sensitization
Ingredients 1 skin – over 0.1% of ingredients are classified as a Category 1 skin sensitizer
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
No information found
STOT – single exposure
Not classified (Based on available data, the classification criteria are not met)
STOT – repeated exposure
Category 1 – lungs over 1% of ingredients classified as a Category 1 STOT hazard
Aspiration Hazard
Not classified (Based on available data, the classification criteria are not met)
Likely routes of exposure
Skin, ingestion, inhalation

Symptoms related to the physical, chemicaland toxicological characteristics
Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Ingestion of contents may cause gastrointestinal irritation with nausea, vomiting and diarrhea. Inhalation will cause irritation to the lungs and mucus membrane.

Delayed and immediate effects and chronic effects from short and long term exposure
Both the solvent yellow and orange dyes may cause dermatitis in sensitive individuals.

Interactive effects
No information found
12. Ecological Information

**Ingredient toxicity / persistence / degradability / bioaccumulation / mobility in soil and water**

- **Aquatic Toxicity**
  - Strontium Nitrate: Acute toxicity - Fishes, Carassius auratus, LC100, 9.615 mg/l; Chronic toxicity - Fishes, Gasterosteus aculeatus, LC100, 2.912 mg/l
  - Potassium Chlorate: fish: LC50 oncorhynus mykiss (rainbow trout) 1750 mg/l – 96 hr, EC50 daphnia magna (water flea) 10.93 mg/l 24 hr

- **Persistence / Degradability**
  - Potassium Nitrate: Soluble in water Persistence is unlikely based on information available.

- **Bioaccumulation / Accumulation**

- **Mobility in Environmental Media**

- **Other adverse effects**

13. Disposal Considerations (for spills and leakage)

Flares should be allowed to burn to completion. Dispose of partially burned flares, ash, spilled contents, contaminated product and materials used in cleaning up spills or leaks in the manner approved for pyrotechnic material in accordance with federal, state and local requirements. Open burning is preferred method of disposal for pyrotechnic materials.

14. Transportation Information

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15. Regulatory Information

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*HHOS March 2019*
16. Other Information

Revision Information: March 2019

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th>HMIS Rating</th>
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<tr>
<td>Flammability</td>
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<td>Health</td>
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<th>Key / Legend</th>
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<tr>
<td>HMIS: hazardous material identification system</td>
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<tr>
<td>NFPA: national fire protection association</td>
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<tr>
<td>CAS: Chemical Abstracts Service number</td>
</tr>
<tr>
<td>EINECS: European inventory of existing chemical substances</td>
</tr>
<tr>
<td>GSHA PEL: occupational safety and health administration permissible exposure limit</td>
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<tr>
<td>NIOSH TLV: national institute of occupational safety and health Threshold Limit Value</td>
</tr>
<tr>
<td>NTP: National Toxicology Program</td>
</tr>
<tr>
<td>IARC: International Agency for Research on Cancer</td>
</tr>
<tr>
<td>CWA: clean water act - US</td>
</tr>
<tr>
<td>TSCA: toxic substance control act - US</td>
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<tr>
<td>CERCLA: comprehensive environmental response compensation and liability act – US</td>
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<td>CAA: clean air act - US</td>
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<td>SARA: superfund amendments and reauthorization act – US</td>
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<td>PROP 65: California’s Proposition 65 list</td>
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<td>WHMIS: workplace hazardous materials information system - Canada</td>
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<td>DSL: Domestic Substances List - Canada</td>
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<td>WGK: water hazard classes - Germany</td>
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Legal Statement
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SECTION 1: PRODUCT IDENTIFICATION

Product: Alcohol Prep Pads

Product Label Name: Dukal Alcohol Prep Pads (private label included)

Company Name and Address: Dukal Corporation
2 Fleetwood Court
Ronkonkoma, NY 11779

Emergency Telephone Number: 631-656-3800

Recommended use: This product is intended for use as a skin antiseptic. It is for external use only.

SECTION 2: HAZARDOUS IDENTIFICATION

Hazard Class/Category: Flammable Liquid – 3
Eye Irritation – 2B

Hazard Symbol:

Signal Word: Warning

Hazard Statements: Flammable liquid and vapor. (H226)
Causes eye irritation. (H320)

Precautionary statements:

General: Keep out of reach of children. (P102)

Eyes: IF IN EYES: Rinse cautiously with water for several minutes.
If eye irritation persists: Get medical advice/attention.
(P305+P338) (P337+P313)

SECTION 3: INFORMATION ON INGREDIENTS

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<tr>
<th>Component Name</th>
<th>CAS #</th>
<th>Concentration</th>
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<td>Isopropyl Alcohol</td>
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<td>70%</td>
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<td>Water</td>
<td>7732-18-5</td>
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SECTION 4: FIRST-AID MEASURES

Emergency first aid procedures by route of exposure:

**Inhalation**: If symptoms are experienced, remove source of contamination or move victim to fresh air. If affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

**Ingestion**: Do not induce vomiting. If the material is swallowed have victim drink 1-3 glasses of water to dilute stomach contents. Seek medical attention or advice.

**Skin**: If irritation is experienced, rinse with water. If irritation persists, seek medical attention.

**Eyes**: Rinse eyes with water for 15 minutes holding the eye open. Seek medical attention if irritation persists.

SECTION 5: FIRE-FIGHTING MEASURES

**Flammability Classification**: Flammable Liquid IB Extinguishing Media: Use methods appropriate for the surrounding fire. Consider water spray or fog, carbon dioxide, dry chemical powder, or alcohol resistant foam.

**Products of Combustion**: Upon decomposition this product may emit carbon dioxide, carbon monoxide and/or low molecular weight hydrocarbons.

**Fire Fighting Equipment/Instructions**: Wear protective clothing and equipment suitable for the surrounding fire, including helmet, facemask, and self contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions**: For large spills wear gloves, safety glasses and when levels exceed OSHA PEL use appropriate NIOSH approved respiratory protection. Keep unnecessary personnel away. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

**Environmental Precautions**: Prevent discharge to open waters.

**Method for Containment**: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth.

**Methods for Clean-Up**: Ventilate area of leak or spill. Use spark-proof tools to sweep or scrape up and containerize in approved chemical waste container. Wash spill area with water.

SECTION 7: HANDLING AND STORAGE

**Handling**: Keep away from heat, sparks and flame. Prevent contact with eyes. Use in well ventilated area.
SAFETY DATA SHEET

Storage: Keep the container tightly closed and in a cool, well ventilated place.

SECTION 8: EXPOSURE CONTROLS

Isopropyl Alcohol (67-63-0)
ACGIH: 200 ppm TWA
OSHA: 400 ppm TWA; 980 mg/m³ TWA

Engineering Controls: Normal room ventilation is usually adequate under normal use.

Personal Protective Equipment (PPE):

Eye/Face Protection: None needed under normal use – Wear goggles is exposed to unusual amount and splashing

Skin Protection: None needed under normal use -- Wear overalls or apron if splashing is possible

Respiratory Protection: May be needed if vapor concentrations are high.

General Hygiene Considerations: None needed under normal use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Non-woven cloth saturated with liquid. There may be some free liquid in packaging.
Appearance/Color: Clear
Odor: Alcohol
PH: Not Available.
Vapor Density: 2.1 (air=1)
Boiling Point: 80°C
Vapor Pressure: No data
Melting Point: No data
Freezing Point: Not Available
Flammability Properties (see section 5)
Solubility (in water): Soluble
Specific Gravity @ 25°C: 0.88-0.92
Evaporation Rate: Not Available
Octanol/Water partition coefficient: Not Available
Auto-ignition temperature: Not Available
Decomposition temperature: Not Available

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal ambient temperatures 70°C (21°C)
Condition to Avoid: Avoid excessive heat or sources of ignition.
Incompatible Materials: This product reacts with strong acid, strong bases, and oxidizing agents.
Hazardous Decomposition: Upon decomposition, this product evolves carbon monoxide, carbon dioxide, and/or low weight hydrocarbons.

OSHA Standard Format
Hazardous Reactions: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:
A: General Product information
   Product contains isopropyl alcohol.

B: Acute Toxicity
   Low order of acute toxicity is possible.

CHRONIC EFFECTS: Component
Isopropyl Alcohol (67-63-0) – This product is not expected to cause long term adverse effects
Carcinogenicity: ACGIH A4 – Not Classifiable as a Human Carcinogen
Neurotoxicity: No information available
Mutagenicity: No information available for product.
Reproductive: This product is not expected to cause reproductive health effects
Developmental: This product is not expected to cause reproductive health effects.
Target Organs: When consumed, ethyl alcohol can target the respiratory system, skin, eyes, CNS, liver, blood and reproductive system.

SECTION 12: ECOLOGICAL INFORMATION

Solutions of alcohols are toxic to aquatic life at moderate to low concentrations. No long-term ecological effects are likely. Concentrated solutions of alcohols and surfactants may cause damage to aquatic and terrestrial plants.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with federal state and local regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld near container. Do not incinerate closed containers. Empty containers may contain hazardous residues. Dispose of containers with care.

SECTION 14: TRANSPORTATION INFORMATION

DOT
Not Regulated as Hazardous Material under DOT 49 CFR 172.102 Special Provision 47

Proper Shipping Name
Solids containing Flammable Liquid. n.o.s. (Isopropanol)
Hazard Class
4.1
Packing Group
II
Description
Solids Containing Flammable Liquid n.o.s. (Isopropanol)
UN#
UN3175

UN-No.
UN3175
Proper Shipping Name
Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Hazard Class
4.1
Packing Group
II
Description
Solids Containing Flammable Liquid n.o.s. (Isopropanol)
SAFETY DATA SHEET

IATA
Not Regulated as Hazardous Material under IATA Sec. 4.4 Special Provision A46

UN-No. UN3175
Proper Shipping Name Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Hazard Class 4.1
Packing Group II
Description Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Marine Pollutant No

IMDG/IMO
Not Regulated as Hazardous Material under IMDG Ch. 3.3 Special Provision 216

UN-No. UN3175
Proper Shipping Name Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Hazard Class 4.1
Packing Group II
Description Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Marine Pollutant No

DOT/IATA/IMDG Special Provisions: (DOT) Mixtures of solids that are not subject to this subchapter and flammable liquids may be transported under this entry without first applying the classification criteria of Division 4.1, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Except when the liquids are fully absorbed in solid material contained in sealed bags, for single packagings, each packaging must correspond to a design type that has passed a leakproofness test at the Packing Group II level. Small inner packagings consisting of sealed packets and articles containing less than 10 mL of a Class 3 liquid in Packing Group II or III absorbed onto a solid material are not subject to this subchapter provided there is no free liquid in the packet or article. (IATA) Small inner packagings consisting of sealed packets or articles containing less than 10 mL of a Packing Group II or III flammable liquid absorbed into a solid material are not subject to these Regulations provided there is no free liquid in the packet or article. (IMDG) Sealed packets containing 10 ml or less of Class 3 flammable liquids in Packing Group II or III which are absorbed into a solid with no free liquid at the time of shipment are not regulated.
SECTION 15: REGULATORY INFORMATION

DOT / USA
Product Description: Solid Containing Flammable Liquid n.o.s. (Isopropanol)

SECTION 16: OTHER INFORMATION

Issue Date: 03-26-14
Revision Date: 12-13-16

Disclaimer:

The information provided in this SDS is correct and is to the best of our knowledge, at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.
SAFETY DATA SHEET

SECTION 1. Product and Company Identification

PRODUCT NAME: BZK Antiseptic Towelette
PRODUCT USE: Antiseptic
Product Code: 1303, 1331
Manufacturer’s Name: Dynarex Corporation
Manufacturer’s Address: 10 Glenshaw Street
Orangeburg, NY 10962
Emergency or Information Phone No.: 888-DYNAREX or 845-365-8200
Phone No.: At other times, contact the local Poison Control Center

SECTION 2. Hazards Identification

Physical hazards Not classified
Health hazards Not classified
- Environmental hazards Not determined
OHSA defined hazards Not classified
Label elements
- Hazard symbol None
- Signal word Not available
- Hazard statement Not available
- Precautionary statement
  - Prevention Not available
  - Response Not available
  - Storage Not available
  - Disposal Not available
Hazard(s) not otherwise classified (HNOC) None known
Supplemental information None
SECTION 3. Composition/information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>BZK</td>
<td>8001-54-5</td>
<td>0.13</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>99.87</td>
</tr>
</tbody>
</table>

SECTION 4. First-aid measures

First aid procedures

Eye Contact
Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.

Skin Contact
In case of skin irritation, discontinue use of product.

Inhalation
Not a normal route of exposure. If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion
Not a normal route of exposure. Do not induce vomiting, Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

Notes to physician
Symptoms may be delayed.

General advice
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep out of reach of children. Avoid contact with eyes.

Flammable Limits: N/A
Flash Point: N/A
SECTION 5. Fire-fighting measures

Flash Point: Not Available
Flammable Limits: Not Available
Extinguishing Media: Any
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None

SECTION 6. Accidental release measures

Personal precautions: Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.

Methods for containment: Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up: Pick up and discard towel.

SECTION 7. Handling and storage

Handling: Use good industrial hygiene practices in handling this material.

Storage: Keep out of reach of children. Store in a closed container away from incompatible materials.

SECTION 8. Exposure controls/personal protection

Engineering controls: General ventilation normally adequate.

Personal protective equipment
Eye/Face protection
Follow standard industrial hygiene practices.

Hand protection
Not required.

Skin and body protection
As required by employer code.

Respiratory protection
Where exposure guideline levels may be exceeded, use and approved NIOSH respirator.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink.

SECTION 9. Physical and chemical properties

Appearance/Odor: Liquid saturated on wipe
Color: Clear liquid
Form: Liquid saturated on wipe
Odor: Characteristic
Odor Threshold: Not available
Physical State: Solid
Boiling Point: <200°F
Paper Components: 100% Virgin Paper
Specific Gravity: 1

SECTION 10. Stability and reactivity

Chemical Stability: Stable under recommended storage conditions.
Hazardous Decomposition Products: May include and are not limited to: oxides of carbon; hydrogen chloride.
Hazardous Polymerization: Will not occur.
Conditions to avoid: Do not mix with other chemicals.

SECTION 11. Toxicological information

Effects of acute exposure

Eye
May cause irritation
Skin

In case of skin irritation, discontinue use of the product.

Inhalation

Not a normal route of exposure. May cause respiratory tract irritation.

Ingestion

Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

Sensitization

Non-hazardous by WHMIS/OSHA criteria.

Chronic Effects

Non-hazardous by WHMIS/OSHA criteria.

Carcinogenicity

Non-hazardous by WHMIS/OSHA criteria.

Mutagenicity

Non-hazardous by WHMIS/OSHA criteria.

Reproductive Effects

Non-hazardous by WHMIS/OSHA criteria.

Teratogenicity

Non-hazardous by WHMIS/OSHA criteria.

SECTION 12. Ecological information

Ecotoxicity Not available

Environmental effects Not available

Aquatic toxicity Not available

Persistence / degradability Not available

Bioaccumulation / accumulation Not available

Partition coefficient Not available

Mobility in environmental media Not available

Chemical fate information Not available

Other adverse effects Not available

SECTION 13. Disposal considerations

Waste codes: Not available
Disposal instructions: Discard after single use.

Review federal, state/provincial, and local government requirements prior to disposal.

Discard with solid waste. Dispose in accordance with all applicable regulations.

Waste from residues / unused products: Not available

Contaminated packaging: Not available

SECTION 14. Transport information

U.S. Department of Transportation (DOT) Not regulated as dangerous goods.

Transportation of Dangerous Goods (TDG - Canada) Not regulated as dangerous goods.

SECTION 15. Regulatory information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

US Federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

Occupational Safety and Health Administration (OSHA)
29 CFR 1910.1200 hazardous No chemical

CERCLA (Superfund) reportable quantity
Benzene: 10.0000
Benzene, methyl-: 1000.0000
Benzene, (chloromethyl)-: 100.0000
Propylene oxide: 100.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA) Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No
Section 311 hazardous chemical No
Clean Air Act (CAA) Not available
Clean Water Act (CWA) Not available
Safe Drinking Water Act (SDWA) Not available
Drug Enforcement Agency (DEA) Not available
Food and Drug Administration (FDA) Not available

State regulations WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

SECTION 16. Other information
Disclaimer:
This Safety Data Sheet, which takes into consideration the requirements of Directive 76/768/EC and subsequent amendments and Directive 1999/45/EC plus subsequent amendments, has been prepared in accordance with Directive (EC) 1907/2006. It is believed to be correct and corresponds to the latest scientific/technical knowledge but all data, instructions, recommendations and/or suggestions are made without guarantee. No warranty, expressed or implied, is made and Dynarex Corp. assumes no legal responsibility or liability resulting from its use.
## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>#007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name</td>
<td>First Aid Burn Cream</td>
</tr>
<tr>
<td>Product Use</td>
<td>Topical Antiseptic and Analgesic Skin Cream</td>
</tr>
</tbody>
</table>
| Manufacturer       | Water Jel Technologies LLC  
                          50 Broad Street  
                          Carlstadt, New Jersey 07072 |
| Telephone          | 201-507-8300 |
| E-mail Address     | www.waterjel.com |
| Emergency Telephone| 1-800-275-3433 |
| FAX Number         | 201-507-8325 |
| Issue Date         | 08-25-2015 |

## SECTION 2: HAZARDS IDENTIFICATION

**Emergency Overview:**
This product is regulated by the US FDA as an over-the-counter, monograph drug.

For Consumers, consult the Drug Facts on the package for use directions and warnings information.

- **Warnings:** For External Use Only.  
  When using this product, avoid contact with the eyes.  
  Do not use on large areas of the body or on broken, blistered or oozing skin.  
  Stop use and ask a doctor if condition worsens or symptoms persist for more than 7 days.  
  If swallowed, get medical help or contact a Poison Control Center immediately.

**Physical Hazards:** This mixture does not meet the classification criteria according to OSHA Hazcom 2012.

**Health Hazards:** This mixture does not meet the classification criteria according to OSHA Hazcom 2012.

**Environmental Hazards:** This mixture does not meet the classification criteria according to OSHA Hazcom 2012.

**OSHA Defined Hazards:** This mixture does not meet the classification criteria according to OSHA Hazcom 2012.

**Label Elements:**
- **Signal Word:** None
- **Hazard Statement:** The mixture does not meet the criteria for classification.
- **Precautionary Statement:**
  - **Prevention:** None required according to OSHA Hazcom 2012.
  - **Response:** None required according to OSHA Hazcom 2012.
  - **Storage:** None required according to OSHA Hazcom 2012.
  - **Disposal:** None required according to OSHA Hazcom 2012.

**Hazards not otherwise Classified (HNOC):** None known.

**Supplemental Information:** None.
Route of Entry:

Skin Contact: May cause irritation, redness, inflammation or dryness.
Skin Absorption: No adverse conditions expected.
Eye Contact: Flush eyes with clear running water for a minimum of 15 minutes; if irritation persists, seek medical attention.
Inhalation: Not expected due to form.
Ingestion: May cause irritation of the digestive tract.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Common Name and Synonyms</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzalkonium Chloride</td>
<td></td>
<td>63449-41-2</td>
<td>0.13</td>
</tr>
<tr>
<td>Lidocaine HCl</td>
<td></td>
<td>6108-05-0</td>
<td>0.5</td>
</tr>
<tr>
<td>Glycerin</td>
<td>1, 2, 3, Propanetriol</td>
<td>56-81-5</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Triethanolamine</td>
<td>Trolamine</td>
<td>102-71-6</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Propylene Glycol</td>
<td>1, 2, 3, Propanetriol 2-Hydroxypropanol</td>
<td>57-55-6</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

Skin Contact: Wash off with warm water and soap. Get medical attention if symptoms occur.
Skin Absorption: No adverse conditions expected.
Eye Contact: Flush eyes with clear running water for a minimum of 15 minutes; if irritation persists, seek medical attention.
Inhalation: Remove victim to fresh air.
Ingestion: May cause irritation of the digestive tract.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable: No
Means of Extinction: Use extinguishing media appropriate for surrounding fire. Use water spray, foam or dry chemical.
In fires involving large quantities of this product, the use of large streams of water should be avoided.
Use self-contained breathing apparatus when fighting fires that involve this material.

Flash Point and Method: NA
Upper Flammable Limit (% by volume): NA
Lower Flammable Limit (% by volume): NA
Autoignition Temperature (°C): NA
Explosion Data – Sensitivity to Impact: No unusual fire or explosion hazards noted.
Explosion Data – Sensitivity to Static Discharge: No unusual fire or explosion hazards noted.

NFPA Health 1 Fire 0 Reactivity 0 Other NA
SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, Protective equipment and Emergency procedures: Wear appropriate personal protective equipment.

Methods and materials for containment and clean up: Absorb spill with vermiculite or other inert material, then place in a sealed container for chemical waste.

Large Spills: Flush with plenty of water. Prevent entry into waterways, sewer, basements or confined areas. Dike for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental Precautions: Avoid discharge into drains and water sources.

SECTION 7: HANDLING AND STORAGE

Handling Procedures and Equipment: Keep this and other chemicals out of the reach of children.

Storage Temperature: Do not store or mix with strong acids or oxidizers. Store at room temperature.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits:

<table>
<thead>
<tr>
<th>Components</th>
<th>ACGIH-TLVs</th>
<th>OSHA-PELs</th>
<th>NIOSH</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerin (CAS 57-55-8)</td>
<td>NE</td>
<td>5 mg/m3</td>
<td></td>
<td>Aerosol</td>
</tr>
<tr>
<td>Propylene Glycol (CAS 57-55-6)</td>
<td>10 mg/m3</td>
<td>NE</td>
<td>NE</td>
<td>Aerosol</td>
</tr>
<tr>
<td>Triethanolamine (CAS 102-71-6)</td>
<td>5 mg/m3</td>
<td>NE</td>
<td>NE</td>
<td>Aerosol</td>
</tr>
</tbody>
</table>

Biological Limit Values: No biological Exposure limits noted for the ingredients.

Ventilation and Engineering Controls: Ensure adequate ventilation.

Personal Protective Equipment: None required under normal conditions

Hand Protection: None required under normal conditions.

Eye and Face Protection: Eye protection, as necessary to prevent excessive contact.

Skin Protection: None required under normal conditions.

General Hygiene Considerations: Practice safe work habits.

Other Protective Equipment: Eye wash stations should be nearby and ready to use.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Cream.
Physical State: Cream.
Form: Cream.
Color: White, homogeneous.
Odor: Slightly fatty odor.

pH: No information available.
Boiling Point: 275°F
Melting Point: No information available.
Flash Point: N/A
Explosive Properties: No information available.
Oxidizing Properties: No information available.
Specific Gravity: 0.81
Water Solubility: Miscible.
Partition Coefficient: No information available.
Viscosity: No information available.
Vapor Pressure (mm Hg): No information available.
Vapor Density (Air=1): No information available.
Evaporation Rate: No information available.
% Volatile: No information available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: The product is stable and non-reactive under normal conditions of use.
Chemical Stability: Stable at normal conditions.
Possibility of Hazardous Reactions: Hazardous polymerization does not occur.
Conditions to Avoid: Extreme heat.
Materials to Avoid: Strong oxidants and strong acids.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Symptoms of Overexposure by Route of Exposure:
The health hazard information provided is for handling this product in an occupational setting.

Effects of Acute and Chronic Exposure:

Acute: The primary health effect that may be experienced in an occupational setting is mild irritation of contaminated skin. Accidental ingestion may be harmful. Although unlikely, irritation can irritate the respiratory system. Eye contact will cause irritation.

Chronic: NE

Target Organs: Acute: Occupational exposure: Skin, eyes.
Chronic: Occupational exposure: Skin.

Inhalation:
Mist may slightly irritate the nose, throat and lungs. Symptoms are generally alleviated upon breathing fresh air.
Skin Contact:
Skin contact may cause burning sensation, stinging, itching and tingling.

Eye Contact:
Eye contact can cause irritation, stinging, redness and tearing.

Ingestion:
Ingestion is not a significant route of occupational overexposure. Acute ingestion of large quantities of this product or chronic ingestion may cause adverse symptoms that may include nausea, vomiting and diarrhea.

Irritancy of the Product:
This product may cause mild to moderate irritation on damaged skin.

Skin Sensitization:
Not expected.

Respiratory Sensitization:
Not expected.

LD50/LC50:

- **Propylene Glycol (CAS 57-55-6)**
  - Oral (rat): 2200mg/kg
  - Dermal: (rabbit) 20800 mg/kg

- **Triethanolamine**:
  - Oral (rat): 6110 mg/kg
  - Dermal: (rabbit): >19870 mg/kg

- **Glycerin (Mist)**:
  - Oral (rat): 12,600 mg/kg
  - Subcutaneous (rat): Not Available

Carcinogenicity: Not classified as a human carcinogen by IARC or ACGIH.

Reproductive Toxicity:

*Mutagenic/Embryo Toxicity*: The components of this product are not reported to cause mutagenic or embryonic effects in humans.

*Teratogenicity*: Not available.

*Reproductive Toxicity*: Not available.

**SECTION 12: ECOLOGICAL INFORMATION**

No specific information is currently available on the effect of this product on plants or animals in the environment. The product may be harmful to contaminated terrestrial and aquatic plant life in large quantities. The following aquatic toxicity data currently available for components of this product:

**Propylene Glycol:**

- EC50 Green Algae (Desmodesmus subspicatus) 19000 mg/l 96 hours
- EC50 Water Flea (Daphnia magna) 43500 mg/l 48 hours
- LC 50 Fathead Minnow (Pimephales promelas) 46500 mg/l 96 hours
Triethanolamine:

EC50 Green Algae (Desmodesmus subspicatus) 512 mg/l 72 hours
NOEC Water Flea (Daphnia magna) 16 mg/l 21 days
LC 50 Fathead Minnow (Pimephales promelas) 11800 mg/l 96 hours

Environmental Exposure Controls: Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

No component of this product is known to have ozone depletion potential.

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal Instructions: Collect or dispose in sealed containers at licensed waste disposal site.
Dispose in accordance with local, state and federal regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not regulated for Domestic Transport.
IATA Classification: Not regulated for International Transport.
IMDG Classification: Not regulated for International Water Transport.

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations:
TSCA (TOXIC SUBSTANCE CONTROL ACT): Not regulated.
CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): Not listed.
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) 304: Not regulated.
SARA 311/312 HAZARD CATEGORIES: Not regulated.
SARA 313 REPORTABLE INGREDIENTS: Not listed.

STATE REGULATIONS:

California Prop 65:
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

New Jersey RTK:
Glycerin (CAS 56-81-5)
Propylene Glycol (CAS 57-55-6)
Triethanolamine (CAS 102-71-6)

Massachusetts RTK:
Triethanolamine (CAS 102-71-6)

Pennsylvania RTK:
Propylene Glycol (CAS 57-55-6)
Triethanolamine (CAS 102-71-6)
INTERNATIONAL REGULATIONS:

<table>
<thead>
<tr>
<th>Country or Region</th>
<th>Inventory Name</th>
<th>Listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australia Inventory of Chemical Substances</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substance List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substance List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China:</td>
<td>Inventory of Existing Chemical Substances In China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico Toxic Substance Control Act (TSCA) Inventory</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Note: A “Yes” indicates that all components comply with the inventory requirements administered by the governing country. A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country.

SECTION 16: OTHER INFORMATION

Issue Date: 08-25-2015

Version: 02

Disclaimer:
The information provided in this Safety Data Sheet (SDS) is accurate to the best of our knowledge. 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 processes.
SECTION 1: PRODUCT IDENTIFICATION

Product: Sting Relief Pad
Product Label Name: Sting Relief Pad
Company Name and Address: Dukal Corporation
2 Fleetwood Court
Ronkonkoma, NY 11779
Emergency Telephone Number: 631-656-3800

SECTION 2: HAZARDOUS IDENTIFICATION

Hazard Class/Category: Flammable Liquid – 3
Eye Irritation – 2B

Hazard Symbol: 

Signal Word: Warning

Hazard Statements: Flammable liquid and vapor. (H226)
Causes serious eye irritation. (H319)
May cause drowsiness or dizziness. (H336)

Precautionary statements:

General: Keep out of reach of children. (P102)

Eyes: IF IN EYES: Rinse cautiously with water for several minutes.
If eye irritation persists: Get medical advice/attention.
(P305+P338) (P337+P313)

Respiratory: None

SECTION 3: INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component Name</th>
<th>CAS #</th>
<th>Concentration</th>
<th>R Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl Alcohol</td>
<td>67-63-0</td>
<td>60%</td>
<td>R11</td>
</tr>
<tr>
<td>Benzocaine</td>
<td>94-09-7</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>34%</td>
<td></td>
</tr>
</tbody>
</table>

Chemical Formula: NH2C6H4COOC2H5 / CH3CHOHCH3

OSHA Standard Format
SECTION 4: FIRST-AID MEASURES

Emergency first aid procedures by route of exposure:

**Inhalation**: If symptoms are experienced, remove source of contamination or move victim to fresh air. If affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.

**Ingestion**: Do not induce vomiting. If the material is swallowed have victim drink 1-3 glasses of water to dilute stomach contents. Seek medical attention or advice.

**Skin**: If irritation is experienced, discontinue use. If irritation persists, seek medical attention.

**Eyes**: Rinse eyes with cool water for 15 minutes holding the eye open. Seek medical attention if irritation persists.

SECTION 5: FIRE-FIGHTING MEASURES

**Flash Point**: 68.5°F, TOC Method

**Flammable Limits**: 750°F

**Extinguishing Media**: Use methods appropriate for the surrounding fire. Suggested: CO2, dry chemical powder, or alcohol resistant foam.

**Products of Combustion**: Upon decomposition this product may emit carbon dioxide, carbon monoxide and/or low molecular weight hydrocarbons.

**Fire Fighting Equipment/Instruction**: Wear protective clothing and equipment suitable for the surrounding fire, including helmet, facemask, and self contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

**Personal Precautions**: For large spills wear gloves, safety glasses and when levels exceed OSHA PEL use appropriate NIOSH approved respiratory protection. Keep unnecessary personnel away. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

**Environmental Precautions**: Prevent discharge to open waters.

**Method for Containment**: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth.

**Methods for Clean-Up**: Ventilate area of leak or spill. Use spark-proof tools to sweep or scrape up and containerize in approved chemical waste container. Wash spill area with water.
SECTION 7: HANDLING AND STORAGE

Handling: Keep away from heat, sparks and flame. Prevent contact with eyes. Use in well ventilated area.

Storage: Keep the container tightly closed and in a cool, well ventilated place.

SECTION 8: EXPOSURE CONTROLS

Isopropyl Alcohol (67-63-0)

ACGIH OEL: 200 ppm TWA
OSHA OEL: 400 ppm TWA; 980 mg/m3 TWA

Engineering Controls: Normal room ventilation is usually adequate under normal use.

Personal Protective Equipment (PPE):

Eye/Face Protection: None needed under normal use – Wear goggles is exposed to unusual amount and splashing

Skin Protection: None needed under normal use -- Wear overalls or apron if splashing is possible

Respiratory Protection: May be needed if vapor concentrations are high.

General Hygiene Considerations: None needed under normal use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Individually sealed Sting Relief Packet. Packet may contain some free liquid.

Appearance/Color: White Non-Woven cloth saturated with clear solution

Odor: Alcohol

PH: Not Available.

Vapor Pressure: Not Available.

Flammability Properties (see section 5)

Solubility (in water): Chemical Is Soluble, Pad Not Soluble

Specific Gravity @ 25°C: 0.8405

Evaporation Rate: Not Available

Auto-ignition temperature: Not Available

Decomposition temperature: Not Available

OSHA Standard Format
SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal ambient temperatures 70°C (21°C)
Condition to Avoid: Avoid excessive heat or sources of ignition.
Incompatible Materials: This product reacts with strong acid, strong bases, and oxidizing agents.
Hazardous Decomposition: Not Available.
Hazardous Reactions: Hazardous polymerization will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:
A: General Product information
   Product contains isopropyl alcohol.
B: Acute Toxicity
   Low order of acute toxicity is possible.
CHRONIC EFFECTS: Component
Isopropyl Alcohol (67-63-0) -- This product is not expected to cause long term adverse effects
Carcinogenicity: Not Classifiable as a Human Carcinogen
Reproductive: This product is not expected to cause reproductive health effects
Developmental: This product is not expected to cause reproductive health effects.
Target Organs: When consumed, isopropyl alcohol can target the respiratory system, skin, eyes, CNS, liver, blood and reproductive system.

SECTION 12: ECOLOGICAL INFORMATION

Mixtures of alcohols are toxic to aquatic life at moderate to low concentrations. No long-term ecological effects are likely. Concentrated solutions of alcohols and surfactants may cause damage to aquatic and terrestrial plants.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose in accordance with federal state and local regulations. Labels should not be removed from containers until they have been cleaned. Do not cut, puncture or weld near container. Do not incinerate closed containers. Empty containers may contain hazardous residues. Dispose of containers with care.

SECTION 14: TRANSPORATION INFORMATION

DOT Not Regulated as Hazardous Material under DOT 49
CFR 172.102 Special Provision 47
Proper Shipping Name Solids containing Flammable Liquid. n.o.s. (Isopropanol)
Hazard Class 4.1
Packing Group II
Description Solids Containing Flammable Liquid n.o.s. (Isopropanol)
UN# UN3175

OSHA Standard Format
SAFETY DATA SHEET

UN-No. UN3175
Proper Shipping Name Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Hazard Class 4.1
Packing Group II
Description Solids Containing Flammable Liquid n.o.s. (Isopropanol)

IATA Not Regulated as Hazardous Material under IATA Sec. 4.4 Special Provision A46

UN-No. UN3175
Proper Shipping Name Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Hazard Class 4.1
Packing Group II
Description Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Marine Pollutant No

IMDG/IMO Not Regulated as Hazardous Material under IMDG Ch. 3.3 Special Provision 216

UN-No. UN3175
Proper Shipping Name Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Hazard Class 4.1
Packing Group II
Description Solids Containing Flammable Liquid n.o.s. (Isopropanol)
Marine Pollutant No

DOT/IATA/IMDG Special Provisions: (DOT) Mixtures of solids that are not subject to this subchapter and flammable liquids may be transported under this entry without first applying the classification criteria of Division 4.1, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Except when the liquids are fully absorbed in solid material contained in sealed bags, for single packaging, each packaging must correspond to a design type that has passed a leak-proof test at the Packing Group II level. Small inner packaging consisting of sealed packets and articles containing less than 10 mL of a Class 3 liquid in Packing Group II or III absorbed onto a solid material are not subject to this subchapter provided there is no free liquid in the packet or article. (IATA) Small inner packaging consisting of sealed packets or articles containing less than 10 mL of a Packing Group II or III flammable liquid absorbed into a solid material are not subject to these Regulations provided there is no free liquid in the packet or article. (IMDG) Sealed packets containing 10 ml or less of Class 3 flammable liquids in Packing Group II or III which are absorbed into a solid with no free liquid at the time of shipment are not regulated.

SECTION 15: REGULATORY INFORMATION

DOT / USA
Product Description: Solid Containing Flammable Liquid n.o.s. (Isopropanol)
OSHA Standard Format
SECTION 16: OTHER INFORMATION

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Revision Date: 04-15-2017

Disclaimer:

The information provided in this SDS is correct and is to the best of our knowledge, at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.