



*The Brightest Name in Safety*

## **SAFETY DATA SHEET**

*Effective Date: October 2022*

**ITEM:** 3-Pk Bag Handheld Red Flares

**PART # 265**

**UPC 077403102655**

### **CONTENTS**

Marine Handheld Red Flare (HHRF) SDS

### **SHIPPING INFORMATION**

UN0373, Signal devices, hand 1.4S (ERG 114)

EX2019092055

## 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

**EMERGENCY RESPONSE**    CHEMTREC  
1-800-424-9300  
1-703-527-3887

### 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.	P370	In case of fire; use water deluge.
P103	Read carefully and follow all instructions	P301/315	IF SWALLOWED: Get immediate medical advice /attention.
P210	Keep away from heat/sparks/open flames/hot surfaces.	P302/352	IF ON SKIN: Wash with plenty of soap and water.
P232	No smoking	P304/340/342	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.
P261	Protect from moisture	P305/338/351	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P264	Avoid breathing dust/fumes.	P332/313	If skin irritation or rash occurs, get medical advice/attention.
P270	Wash hands thoroughly after handling.	P501	Dispose of contents / container in accordance with local and national Regulations.
P271	Do not eat, drink or smoke when using this product.		
P280	Use only outdoors.		
P280	Wear protective eye protection.		

**Hazards Not Otherwise Classified (HNOC):** produces hot flame

### 3. Composition / Information on Ingredients

Component	CAS #	EINCS #	Percentage
Strontium Nitrate	10042-76-9	233-131-6	<60%
Sulfur	7704-34-9	231-722-6	<25%
Potassium Nitrate	7757-79-1	231-818-8	<25%
Polyvinyl Chloride	9002-86-2	200-831-0	<5%
Paraffinic Oil	64742-54-7	232-384-2	<5%
Strontium Peroxide	1314-18-7	215-224-6	<2%
Potassium Chlorate	3811-04-9	231-100-4	<2%

**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

<b>Inhalation</b>	If contents are inhaled, remove to fresh air. Watch for signs of allergic reaction. If other symptoms develop, get medical aid immediately.
<b>Skin</b>	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.
<b>Eyes</b>	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.
<b>Ingestion</b>	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

<b>Extinguishing Media</b>	Water deluge	<b>Unsuitable Extinguishing Media</b>	Foam and dry chemical extinguishers and suffocation are ineffective.
<b>Protective Equipment and Precautions for Firefighters</b>	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.		
<b>Specific Hazards Arising from the Chemical</b>	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.		
<b>Further Information</b>	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.

### 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.

### 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

Exposure Limits	OSHA PEL	ACGIH TLV
Strontium Nitrate	Not established	Not established
Sulfur	Not established	Not established
Potassium Nitrate	Nuisance dust, 15 mg/m <sup>3</sup>	Nuisance dust, 15 mg/m <sup>3</sup>
Polyvinyl Chloride	No known hazardous components above regulatory thresholds in this product	No known hazardous components above regulatory thresholds in this product
Paraffinic Oil	5 mg/m <sup>3</sup>	TWA 5 mg/m <sup>3</sup>
Strontium Peroxide	15 mg/m <sup>3</sup>	15 mg/m <sup>3</sup>
Potassium Chlorate	Not Established	Not Established

### Exposure Controls

<b>Engineering Controls</b>	Use product outdoors only! When cleaning up contents, use local and/or general exhaust.
<b>Eye / Face Protection</b>	Safety glasses or goggles
<b>Skin Protection</b>	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
<b>Respiratory Protection</b>	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.
<b>General Hygiene</b>	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

<b>Appearance</b> (color, physical form, shape):	Grey powder	<b>Melting Point:</b>	No data available	<b>Solubility:</b>	No data available
<b>pH:</b>	No data available	<b>Freezing Point:</b>	Not applicable	<b>Evaporation Rate:</b>	Not applicable
<b>Boiling Point / Range:</b>	Not applicable	<b>Specific Gravity:</b>	Not applicable	<b>Vapor Density:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable	<b>Odor Threshold:</b>	No data available	<b>Flash Point:</b>	No data available
<b>Odor:</b>	No data available	<b>Flammability Limits:</b>	No data available	<b>Relative Density:</b>	No data available
<b>Flammability:</b>	No data available	<b>Viscosity:</b>	No data available	<b>Decomposition Temperature:</b>	No data available
<b>Partition Coefficient:</b>	No data available				
<b>Auto Ignition Temperature:</b>	No data available				

## 10. Stability and Reactivity

<b>Chemical Stability:</b>	Stable	<b>Reactivity:</b>	No information available	<b>Possibility of Hazardous Reactions:</b>	Hazardous polymerization will not occur.
<b>Conditions to Avoid</b>	Combustible materials, heat, flames, sparks and other sources of ignition. Moisture.	<b>Incompatible Materials</b>	Strong acids, strong fuels, ammonia salts and strong bases.	<b>Hazardous Decomposition Products</b>	Carbon monoxide, carbon dioxide, sulfur oxides and nitrogen oxides.

## 11. Toxicology Information

### Ingredient acute toxicity information

Toxicology	Oral LD50	Skin LD50	LC50
Strontium Nitrate	Rat: 1892 mg/kg	Not stated	Not stated
Sulfur	Rat: 5050 mg/kg	Rat:>2020 mg/kg	Rat:>5.49 mg/L air concentration
Potassium Nitrate	Rat: 3750 mg/kg	Not stated	Not stated
Polyvinyl Chloride	Rat: >5000 mg/kg	No known hazardous components above regulatory thresholds	No known hazardous components above regulatory thresholds
Paraffinic Oil	Rat: >2000 mg/kg	Rat: >2000 mg/kg	No information found
Strontium Peroxide	Not Available	Not Available	Not Available
Potassium Chlorate	Rat 1870 mg/kg	2000 mg/kg (rabbit)	No information found

### Product toxicological information

<b>Acute Toxicity</b>	Not classified – <i>Acute Toxicity Estimate yields oral LD<sub>50</sub> over 5000 mg/kg bw</i>
<b>Skin Irritation / Corrosion</b>	Category 2 – <i>over 10% of ingredients classified as a Category 2 skin irritant</i>
<b>Serious Eye Damage / Irritation</b>	Category 2A – <i>over 10% of ingredients classified as a Category 2A eye irritant</i>
<b>Respiratory / Skin Sensitization</b>	Not classified (Based on available data, the classification criteria are not met)
<b>Germ Cell Mutagen</b>	Not classified (Based on available data, the classification criteria are not met)
<b>Carcinogen</b>	Not classified (Based on available data, the classification criteria are not met)
<b>Reproductive Toxicity</b>	Not classified (Based on available data, the classification criteria are not met)
<b>STOT – single exposure</b>	Not classified (Based on available data, the classification criteria are not met)
<b>STOT – repeated exposure</b>	Category 3 - <i>respiratory-over 10% of ingredients classified as a Category 3 respiratory STOT hazard</i>
<b>Aspiration Hazard</b>	Not classified (Based on available data, the classification criteria are not met)
<b>Likely routes of exposure</b>	Skin, ingestion, inhalation
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	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.
<b>Delayed and immediate effects and chronic effects from short and long term exposure</b>	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.
<b>Interactive effects</b>	No information found

## 12. Ecological Information

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

<b>Aquatic Toxicity</b>	<b>Potassium Chlorate:</b> fish: LC50 <i>oncorhynchus mykiss</i> (rainbow trout) 1750 mg/l – 96 hr, EC50 <i>daphnia magna</i> (water flea) 1093 mg/l 24 hr <b>Strontium Nitrate:</b> Acute toxicity - Fishes, <i>Carassius auratus</i> , LC100, 9,615 mg/l; Chronic toxicity - Fishes, <i>Gasterosteus aculeatus</i> , LC100, 2.912 mg/l <b>Sulfur:</b> Toxicity to fish LC50 – <i>Oncorhynchus mykiss</i> (rainbow trout) - > 180 mg/l – 96 h Toxicity to <i>daphnia</i> and other aquatic invertebrates: EC50 – <i>Daphnia magna</i> (Water flea) - > 5,000 mg/l – 48 h
<b>Persistence / Degradability</b>	No information found
<b>Bioaccumulation / Accumulation</b>	No information found
<b>Mobility in Environmental Media</b>	<b>Strontium Nitrate:</b> Water: considerable solubility and mobility; Soil/sediments non-significant adsorption
<b>Other adverse effects</b>	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.

### 14. Transportation Information

ID Number	Proper Shipping Name	Hazard Class	Packing Group	EX Number	Reportable Quantities
UN0373	Signal devices, hand	1.4S	n/a	2019092055	none
Domestic & International					
Marine pollutant: no					
Special precautions for user: no information available					

### 15. Regulatory Information

US Regulations	TSCA	CERCLA	CWA	CAA	SARA 313	SARA 302	Acute	Chronic	Fire	Reactivity	Pressure
Strontium Nitrate	yes	no	no	no	yes	no	yes	no	no	yes	no
Sulfur	yes	no	no	no	no	no	yes	no	yes	no	no
Potassium Nitrate	yes	no	no	no	yes	no	no	no	no	yes	no
Polyvinyl Chloride	yes	no	no	no	no	no	yes	no	no	no	no
Paraffinic Oil	yes	no	no	no	no	no	no	no	no	no	no
Potassium Chlorate	yes	no	no	no	no	no	yes	no	no	yes	no
Strontium Peroxide	yes	no	no	no	no	no	yes	no	yes	yes	no
US States	Prop 65	NJ	PA	Canada	WHMIS		DLS	Europe	Wgk		
Strontium Nitrate	no	1743	no		C Oxidizing materials D1B Toxic materials D2B Toxic materials		yes		2		
Sulfur	no	1757	yes		B4 Flammable solid D2B Toxic materials		yes		1 / nwg		
Potassium Nitrate	no	1574	yes		C Oxidizing materials		yes		1		
Polyvinyl Chloride	no	3622	no		No results		yes		not listed		
Paraffinic Oil	no	1437	no		No results		yes		not listed		
Potassium Chlorate	no	1560	yes		C Oxidizing materials D1B Toxic materials		yes		2		
Strontium Peroxide	no	yes	no		C Oxidizing materials		yes		not listed		

### 16. Other Information

Revision Information: March 2019

NFPA Rating	HMIS Rating
Flammability 2	Flammability 1
Health 2	Health 3
Reactivity 1	Physical Hazard 1

#### 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  
 TSCA: toxic substance control 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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