

## SAFETY DATA SHEET

### 1. Product and Company Identification

**Orion Green Fluorescein Dye Marker**

**Identified Use:** Emergency Distress Signal

**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  
1-703-741-5970

### 2. Hazards Identification

<b>GHS Classifications</b>	Eye Damage / Irritation	Category 1	H318
	STOT – Single Exposure	Category 3	H335

**GHS Label Elements**

**Hazard Statements**

H318 Causes serious Eye Damage  
H335 May cause respiratory irritation

**Pictograms**



**Signal Word**      **Danger**

**Precautionary Statements**

P102	Keep out of reach of children.	P305/340/342	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P103	Read carefully and follow all instructions.		
P301/315	IF SWALLOWED: Get immediate medical advice		
P302/352	IF ON SKIN: Wash with plenty of soap and water.	P333/313	If skin irritation or rash occurs, get medical advice/attention.
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.	P370	In case of fire; use water deluge.

**Hazards Not Otherwise Classified (HNOC):** none

### 3. Composition / Information on Ingredients

Component	CAS #	EINCS #	Percentage
Sodium Fluorescein	518-47-8	208-253-0	>50%
Sodium Bicarbonate	144-55-8	205-633-8	<50%
Adipic Acid	124-04-9	204-673-3	<20%

**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.		
<b>Specific Hazards Arising from the Chemical</b>	Avoid dust / air suspensions. As with any organic powder, the contents may be capable of a dust explosion fire.		
<b>Further Information</b>	No data available		

## 6. Accidental Release Measures

### Personal Precautions / Protective Equipment / Emergency Procedures

Do not breathe contents and avoid contact with skin and eyes. Dye will stain / color all exposed areas – wear Tyvek coveralls, goggles or face mask, dust mask / respirator and booties if available. If not, wear clothing with long sleeves, long pant legs, dust mask, rubber or nitrile gloves, safety goggles, and safety shoes when cleaning up contents.

### Environmental Precautions

Contents are highly soluble in water and the dust has a great ability to migrate.

### Methods for Containment and Clean-up

Place absorbent material onto floor before sweeping. Clean area in a manner so as to minimize dust. Wear gloves, safety glasses/goggles, and full-coverage clothing to minimize exposure and dye effects. For large spills, a dust mask is recommended. Pick up spill for recovery or disposal and place in lidded container. Wash area with soap and plenty of water. Material is completely gone when no additional green color is detected in wash water.

## 7. Handling and Storage

### Precautions for Safe Handling

Contents will stain – handle with caution. Wear appropriate eye protection when using. Follow instructions on package. Avoid ingestion and inhalation of contents. Wash thoroughly after handling. Do not disassemble signal.

### Conditions for Safe Storage, Including Any Incompatibilities

Store in a cool, dry place. Store away from food and beverages. Keep at temperature not exceeding 60°C (140°F).

## 8. Exposure Controls / Personal Protection

### Control Parameters

Exposure Limits	OSHA PEL	ACGIH TLV
Sodium Fluorescein	Not established	Not established
Sodium Bicarbonate	Not established	Not established
Adipic Acid	Not established	5 mg/m <sup>3</sup>

### Exposure Controls

<b>Engineering Controls</b>	When cleaning up contents, use local and/or general exhaust.
<b>Eye / Face Protection</b>	Wear safety glasses when cleaning up spilled contents.
<b>Skin Protection</b>	No significant health effects but contents will stain exposed areas. Wear Tyvek coveralls, rubber or nitrile gloves, and booties if available. If not, wear clothing with long sleeves, long pant legs, rubber or nitriles gloves, and safety shoes when cleaning up contents. 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>	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):	Orange powder	<b>Solubility:</b>	No data available
<b>pH:</b>	No data available	<b>Melting Point:</b>	No data available
<b>Boiling Point / Range:</b>	Not applicable	<b>Freezing Point:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable	<b>Specific Gravity:</b>	Not applicable
<b>Odor:</b>	No data available	<b>Odor Threshold:</b>	No data available
<b>Flammability:</b>	No data available	<b>Flammability Limits:</b>	No data available
<b>Partition Coefficient:</b>	No data available	<b>Viscosity:</b>	No data available
<b>Auto Ignition Temperature:</b>	No data available	<b>Decomposition 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> Excessive temperatures, moisture, acids, and ignition sources.	<b>Incompatible Materials</b> Oxidizing agents, acids	<b>Hazardous Decomposition Products</b>	Nitrogen oxides, carbon monoxide, carbon dioxide

## 11. Toxicology Information

### Ingredient acute toxicity information

Toxicology	Oral LD50	Skin LD50	LC50
Sodium Fluorescein	Rat: 6,721 mg/kg	Not available	Not available
Sodium Bicarbonate	Rat: 4,220 mg/kg	Not available	Not available
Adipic Acid	Rat: 5,560 mg/kg	Rabbit: 7,940 mg/kg	Rat: 4 h - >7.7 mg/l

### 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>	No information found
<b>Serious Eye Damage / Irritation</b>	Category 1 – <i>over 0.1% of ingredients classified as a Category 1 t</i>
<b>Respiratory / Skin Sensitization</b>	No information found
<b>Germ Cell Mutagen</b>	No information found
<b>Carcinogen</b>	No information found
<b>Reproductive Toxicity</b>	No information found
<b>STOT – single exposure</b>	Category 3 - <i>respiratory-over 20% of ingredients classified as a Category 3 respiratory STOT hazard</i>
<b>STOT – repeated exposure</b>	No information found
<b>Aspiration Hazard</b>	No information found
<b>Likely routes of exposure</b>	Skin, ingestion, inhalation
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	No information found
<b>Delayed and immediate effects and chronic effects from short and long term exposure</b>	No information found
<b>Interactive effects</b>	No information found

## 12. Ecological Information

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

<b>Aquatic Toxicity</b>	<u>Sodium Fluorescein</u> : - LC50 <i>Oncorhynchus mykiss</i> (rainbow trout) - 1,372 mg/l – 96 h; EC50 – <i>Daphnia pulex</i> (Water flea) – 337 mg/l – 48 h <u>Sodium Bicarbonate</u> : - LC50 freshwater fish 8250 – 9000 mg/L 96 h; EC50: freshwater algae 650 mg/L/120h; EC50: 2350 water flea mg/L/48h <u>Adipic Acid</u> : - LC50 – <i>Brachydanio rerio</i> (zebrafish) >=1,000 mg/l – 96 h; LC50 – <i>Daphnia magna</i> (Water flea) – 46 mg/l – 48 h; EC50 – <i>Pseudokirchneriella subcapitata</i> (algae) – 59 mg/l – 72 h
<b>Persistence / Degradability</b>	<u>Sodium Bicarbonate</u> : Soluble in water. Persistence is unlikely based on information available. <u>Adipic Acid</u> : - Readily biodegradable.
<b>Bioaccumulation / Accumulation</b>	No information found
<b>Mobility in Environmental Media</b>	<u>Sodium Bicarbonate</u> : - Will likely be mobile in the environment due to its water solubility.
<b>Other adverse effects</b>	No information found

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

### Disposal methods

Dispose of contaminated product, empty container and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. This material is not considered to be a hazardous waste and no special disposal requirements are expected. .

## 14. Transportation Information

Packaging Description	ID Number	Proper Shipping Name	Hazard Class	P G	EX Number	Reportable Quantities	Comments
Domestic & International	none	Non-hazardous	none	n/a	none	none	

Marine Pollutant: no

Special precautions for user: No information available.

## 15. Regulatory Information

US Regulations	TS CA	CERCLA	CWA	CAA	SARA 313	SARA 302	Acute	Chronic	Fire	Reactivity	Pressure
Sodium Fluorescein	8(b)	no	no	no	no	no	no	yes	no	no	no
Sodium Bicarbonate	yes	no	no	no	no	no	yes	yes	no	no	no
Adipic Acid	yes	yes	yes	no	no	no	yes	no	no	no	no
US States	Prop 65	NJ	PA	Canada	WHMIS		DLS	Europe	Wgk		
Sodium Fluorescein	no	yes	yes		D2B Toxic materials		yes		Not listed		
Sodium Bicarbonate	no	no	no		D2B Toxic materials		yes		1		
Adipic Acid	no	yes	yes		D2B Toxic materials		yes		1		

## 16. Other Information

**Revision Information:** April 2022

<b>NFPA Rating</b>		<b>HMIS Rating</b>	
Flammability	2	Flammability	2
Health	1	Health	1
Reactivity	0	Physical Hazard	0

### Key / Legend

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

### Legal Statement

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