

SAFETY DATA SHEET

1. Product and Company Identification

Chimfex, Chimney Fire Stop

Identified Use: Chimney Fire Suppressant

Use advised Against: Do not use inside 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	Skin Irritation	Category 2
	Eye Irritation	Category 2A
	Respiratory Sensitizer	Category 1B
	Skin Sensitizer	Category 1B
	Carcinogenicity	Category 2
	Aquatic Environment - Acute	Category 1
	Aquatic Environment-Chronic	Category 1

GHS Label Elements

Hazard Statements

H315	Causes skin irritation
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H317	May cause allergic skin reaction
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Pictograms



Signal Word

Warning

Precautionary Statements

P103	Read carefully and follow all instructions.	P302/352	IF ON SKIN: Wash with plenty of soap and water.
P210	Keep away from heat, sparks, open flames, hot	P304/340/342	IF INHALED: Remove victim to fresh air and keep at rest in a comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P264	Wash hands thoroughly after handling.		
P270	Do not eat, drink or smoke when using this product.		
P261	Avoid breathing dust/smoke.	P305/338/351	IF IN EYES: Rinse cautiously with water for several minutes. contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective eye protection.		
P273	Avoid release to the environment.	P332/313	If skin irritation or rash occurs, get medical advice/attention.
P301/315	IF SWALLOWED: Get immediate medical advice	P370	In case of fire use water deluge.
		P501	Dispose of contents / container in accordance with local and

Hazards Not Otherwise Classified (HNOC): none

3. Composition/ Information on Ingredients

Component	CAS #	EINCS #	Percentage
Zinc Dust	7440-66-6	231-175-3	<50%
Sulfur	7704-34-9	231-722-6	<20%
Potassium Nitrate	7757-79-1	231-818-8	<20%
Strontium Nitrate	10042-76-9	233-131-9	<15%
Paraffinic Oil	64742-54-7	232-384-2	<5%
Sawdust (cellulose)	9004-34-6	232-674-9	<5%
Sodium Bicarbonate	144-55-8	205-633-8	<5%

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

4. First Aid Measures

Description of first aid measures

Inhalation	If smoke or contents are inhaled, remove to fresh air. Watch for signs of allergic reaction. Use a bronchodilator inhaler if directed by asthma patient. If not breathing, give artificial respiration and get medical aid. Inhalation of zinc oxide fumes may cause an influenza-like illness termed metal fume fever. Symptoms, which appear several hours following exposure, include chills, lassitude, malaise, frontal headache, low-back pain, muscle cramps and vomiting. Get medical aid immediately if these symptoms appear. If other symptoms develop, get medical aid immediately.
Skin	If contents are contacted, wash 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 - See section 2 labeling and section 11

Indication of any immediate medical attention and special treatment needed Burning flare can cause severe burns if in contact with body. For burns to skin, cool with water and bandage appropriately. Seek medical attention. If eye is burned, cover eye and get medical aid immediately.

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. Devices will burn readily in a fire situation generating zinc oxide fumes. Firemen exposed to contaminated smoke should be immediately relieved and checked for symptoms of exposure to toxic gasses. Seek medical attention immediately! This should not be mistaken for heat exhaustion or smoke inhalation. These are extremely irritating to the respiratory tract and may cause breathing difficulty and pulmonary edema. Symptoms may be delayed several hours or longer depending upon exposure. .		
Specific Hazards Arising from the Chemical	Flame and sparks are ejected out the open end of the flare when it functions. Burning unit produces copious amount of white smoke containing zinc oxide fumes. Avoid contact with smoke. Contents may ignite and burn explosively when suspended in air and exposed to open flame or spark. .		
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.

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 or disposal and place in an approved container. Wash away remainder with plenty of water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for Safe Handling

Always call your local fire department first if you have a chimney fire. Always point Chimfex flare away from body while igniting and afterwards. Fumes are harmful if inhaled. Exercise caution when using the product since molten flecks may be emitted. Avoid contact with clothing and other combustible materials. Wear eye protection during use. Follow instructions on package. Ignite product over fireplace hearth or fire-proof stove board. Product is designed for emergency use, do not attempt to ignite or burn this product inside a building for vehicle for demonstration or recreational use. Burning unit produces copious amount of white smoke containing zinc oxide fumes. Avoid contact with smoke.

Conditions for Safe Storage, Including Any Incompatibilities

Store in a cool, dry, well-ventilated place away from all sources of ignition. Store away from food and beverages. Store away from flammable materials. Store at ambient temperature. Do not store partially burned product in a vehicle, closed container, warehouse, or any other building.

8. Exposure Controls / Personal Protection

Control Parameters

Exposure Limits	OSHA PEL	ACGIH TLV
Zinc Dust	5 (fume) mg/m ³	5 (fume) mg/m ³
Sulfur	Not established	Not established
Potassium Nitrate	Nuisance dust, 15 mg/m ³	Nuisance dust, 15 mg/m ³
Strontium Nitrate	Not established	Not established
Paraffinic Oil	5 mg/m ³	TWA 5 mg/m ³
Sawdust (cellulose)	15 mg/m ³	10 mg/m ³
Sodium Bicarbonate	Not established	Not established

Exposure Controls

Engineering Controls

Burning unit produces copious amount of white smoke containing zinc oxide fumes. Avoid contact with smoke. When used in a confined or restricted space use NIOSH/MSHA approved SCBA. When cleaning up powder, use local and/or general exhaust.

Personal Protective Equipment

Eye / Face Protection Skin Protection

Safety glasses or goggles

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 as instructed 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: Not applicable
Vapor Pressure: Not applicable
Odor: No data available
Flammability: No data available
Partition Coefficient: No data available
Auto Ignition Temperature: No data available

Melting Point: No data available
Freezing Point: Not applicable
Specific Gravity: Not applicable
Odor Threshold: No data available
Flammability Limits: No data available
Viscosity: No data available

Solubility: No data available
Evaporation Rate: Not applicable
Vapor Density: Not applicable
Flash Point: No data available
Relative Density: No data available

Decomposition Temperature: No data available

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 oxidizers, acids, chlorate salts

Hazardous Decomposition Products

Carbon monoxide, nitrogen oxides, sulfur oxides and zinc oxide fumes.

11. Toxicology Information

Ingredient acute toxicity information

Toxicology	Oral LD50	Skin LD50	LC50
Zinc Dust	Rat: 3000 mg/kg	Not available	Not available
Sulfur	Rat: >5000 mg/kg	Rat: >2000 mg/kg	Rat: 4 h-5.434 mg/l
Potassium Nitrate	Rat: 3750 mg/kg	Not available	Not available
Strontium Nitrate	Rat: 1892 mg/kg	Not available	Not available
Paraffinic Oil	Rat: >2000 mg/kg	Rabbit: >2000 mg/kg	No information found
Sawdust (cellulose)	Not available	Not available	Not available
Sodium Bicarbonate	Rat: 4220 mg/kg	Not available	Not available

Product toxicological information

Acute Toxicity	Not classified – <i>Acute Toxicity Estimate yields oral LD₅₀ over 5000 mg/kg bw</i>
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	Respiratory - Category 1B over 0.1% of ingredients classified as a Category 1 Skin – Category 1B over 0.1% of ingredients classified as a Category 1
Germ Cell Mutagen	No information found
Carcinogen	Category 2 – over .01% of ingredients classified as a Category 2
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	Inhalation of zinc oxide fumes may cause an influenza-like illness termed metal fume fever. Symptoms, which appear several hours following exposure, include chills, lassitude, malaise, frontal headache, low-back pain, muscle cramps, and vomiting. Possible irritation of nasal passages, cough and fever.
Delayed and immediate effects and chronic effects from short and long term exposure	Individuals with known allergies to sulfide drugs may also have allergic reactions to elemental sulfur. Contents could cause severe irritation, possible mild chemical burns, to the eyes. Inhalation of smoke will irritate eyes, lungs and mucus membranes. Avoid breathing smoke whenever possible. Inhalation of zinc oxide fumes may cause an influenza-like illness termed metal fume fever. 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	<u>Strontium Nitrate:</u> Acute toxicity - Fishes, Carassius auratus, LC100, 9,615 mg/l; Chronic toxicity - Fishes, Gasterosteus aculeatus, LC100, 2,912 mg/l <u>Sulfur:</u> 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
Potassium Nitrate: fish: Guppy (Poecilia Reticulata) LC50 180 mg/L (96 h); zooplankton: Daphnia magna LC50 490mg/l – 48hr
Paraffinic Oil: Oil Mist, Mineral Lepomis macrochirus (LC50) 96 hour(s) >100 mg/l Oncorhynchus mykiss (LC50) 96 hour(s) >100 mg/l
Sodium Bicarbonate: Fishes, Oncorhynchus mykiss, LC50, 96 h 7,700 mg/l -Fishes, Oncorhynchus mykiss, NOEC, 96 h, 2,300 mg/l; - Fishes, Lepomis macrochirus, LC50, 96 h, 7,100 mg/l; - Fishes, Lepomis macrochirus, NOEC, 96 h, 5,200 mg/l; - Crustaceans, Daphnia magna, EC50, 48 h, 4,100 mg/l; - Crustaceans, Daphnia magna, NOEC, 48 h, 3,100 mg/l
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
Potassium Nitrate: Predicted Distribution : Water, 45%; Soil, 54.7%
Other adverse effects No information found

13. Disposal Considerations (for spills and leakage)

Disposal methods

Chimfex should be allowed to burn to completion. Partially burned or unburned items, spilled contents, and ash from burned Chimfex should be disposed of in accordance with federal, state, and local requirements. Consult factory for any additional disposal concerns.

14. Transportation Information

ID Number	Proper Shipping Name	Hazard Class	Packing Group	Reportable Quantities
**UN3178	Flammable solid, inorganic, n.o.s.	4.1	II	none

** According to 49 CFR, Exceptions for Class 4, Limited Quantities of this product, properly packaged and classed as UN3178, Flammable solid, inorganic, n.o.s. are excepted from several requirements unless offered for transport by air or vessel.

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
Zinc	yes	yes	yes	no	yes	no	yes	no	yes	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
Strontium Nitrate	yes	no	no	no	no	no	yes	no	no	yes	no
Paraffinic Oil	yes	no	no	no	no	no	no	no	no	no	no
Sawdust (cellulose)	yes	no	no	no	no	no	no	no	no	no	no
Sodium Bicarbonate	yes	no	no	no	no	no	yes	yes	no	no	no
US States	Prop 65	NJ	PA	Canada	WHMIS			DLS	Europe		Wgk
Zinc	no	yes	yes		B6 Reactive			yes			nwg
Sulfur	no	yes	yes		B4 Flammable solid			yes			1 / nwg
Potassium Nitrate	no	yes	yes		D2B Toxic materials						
Strontium Nitrate	no	yes	no		C Oxidizing materials			yes			1
					C Oxidizing materials			yes			2
					D1B Toxic materials						
					D2B Toxic materials						
Paraffinic Oil	no	yes	no		Not controlled			yes			not listed
Sawdust (cellulose)	yes	no	no		No results			yes			not listed
Sodium Bicarbonate	no	no	no		D2B Toxic materials			yes			1

16. Other Information

Revision Information: March 2018

NFPA Rating		HMIS Rating	
Flammability	1	Flammability	1
Health	2	Health	2
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

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