

STANDARD FUSEE CORP./ORION SAFETY PRODUCTS

MATERIAL SAFETY DATA

NSN#: 1370-01-009-259

- RAILWAY & HIGHWAY FUSEES

EMERGENCY CONTACT

CHEMTREC 1-800-424-930

- **ORION MARINE SIGNAL PRODUCTS (FORMERLY OLIN SIGNAL PRODUCTS)**

SECTION I - IDENTIFICATION		
CHEMICAL NAMES & SYNONYMS: FUSEE		
CHEMICAL FAMILY: PYROTECHNIC DEVICE	FORMULA: MIXTURE	TRADE NAME: FUSEE/FLARE
DESCRIPTION: RED CARDBOARD TUBE CONTAINING YELLOWISH-TAN SOLID MIXTURE.		CAS NO.: NONE ASSIGNED/MIXTURE

SECTION II - HAZARDOUS INGREDIENTS				
BASIC MATERIAL	OSHA P.E.L.	LD 50	LC 50	SIGNIFICANT EFFECTS
STRONTIUM NITRATE C.A.S.# 10042769	NONE EST.	2750 mg/Kg (RAT)	NO DATA	IRRITANT TO SKIN, EYES AND MUCOUS MEMBRANES.
POTASSIUM PERCHLORATE C.A.S.# 7778747	NONE EST.	NO DATA	NO DATA	IRRITANT TO SKIN, EYES AND MUCOUS MEMBRANES.
SULFUR C.A.S.# 7704349	NONE EST.	NO DATA	NO DATA	MAY CAUSE EYE AND MUCOUS MEMBRANE IRRITATION.
SAWDUST/OIL BINDER C.A.S.# MIXTURE	NONE EST.	NO DATA	NO DATA	N/A

SECTION III - NORMAL HANDLING PROCEDURES	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: KEEP ITEMS OUT OF THE REACH OF CHILDREN!! CONTENTS MAY BE HARMFUL IF SWALLOWED. IF TUBE IS BROKEN, DO NOT GET CONTENTS IN EYES, ON SKIN OR ON CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH WITH WATER. AVOID BREATHING DUST. STORE IN A COOL, DRY, WELL-VENTILATED PLACE AWAY FROM ALL SOURCES OF IGNITION. EXERCISE CAUTION WHEN USING THIS PRODUCT SINCE MOLTEN FLECKS MAY BE EMITTED. DO NOT USE PRODUCT NEAR ANY FLAMMABLE OR COMBUSTIBLE MATERIALS. AVOID CONTACT WITH STRONG OXIDIZERS. AVOID OPEN FLAMES AND TEMPERATURES >167°F.	
PROTECTIVE EQUIPMENT FOLLOW DIRECTIONS ON PACKAGE. ALWAYS POINT FUSEE AWAY FROM FACE AND BODY WHILE IGNITING AND AFTERWARDS.	VENTILATION REQUIREMENTS THIS PRODUCT SHOULD ONLY BE USED OUTDOORS.

SECTION IV - FIRE AND EXPLOSION DATA		
FLASH POINT/METHOD: N/A CONTENTS: >167°F (OVEN)	OSHA CLASSIFICATION: FLAMMABLE SOLID	FLAMMABLE EXPLOSIVE LIMITS: UPPER: NONE ESTAB. LOWER: NONE ESTAB.
EXTINGUISHING MEDIA: USE WATER DELUGE/FLOODING METHODS;		
SUFFOCATION TECHNIQUES WILL NOT BE EFFECTIVE: NO THREAT OF MASS EXPLOSION.		
SPECIAL FIRE HAZARD & FIRE FIGHTING PROCEDURES: USE NIOSH/MSHA APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS WHEN ANY MATERIAL IS INVOLVED IN FIRE.		

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE: NONE ESTABLISHED FOR THE MIXTURE.	
SYMPTOMS OF OVER EXPOSURE: TUBE CONTENTS ARE CORROSIVE TO THE EYES AND IRRITATING TO THE RESPIRATORY TRACT AND SKIN.	
SKIN: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES, CALL A PHYSICIAN IF IRRITATION OCCURS.	
EYES: IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES, CALL A PHYSICIAN.	
INGESTION: IF CONTENTS ARE INGESTED: IMMEDIATELY GIVE LARGE QUANTITIES OF WATER OR EPSOM SALT SOLUTION. INDUCE VOMITING AND CALL A PHYSICIAN.	
INHALATION: IMMEDIATELY REMOVE VICTIM TO FRESH AIR. CALL A PHYSICIAN.	

CHEMICAL NAME: FUSEE

SECTION VI - TOXICOLOGY (PRODUCT)		
ALL CHEMICAL IS CONTAINED IN CARDBOARD TUBE - NONE IS EXPOSED		
ACUTE ORAL LD 50: APPROXIMATELY 3 GRAMS/kg (RAT)	CARCINOGENICITY: NOT KNOWN TO BE CARCINOGENIC	
	MUTAGENICITY: NOT KNOWN TO BE MUTAGENIC	
ACUTE DERMAL LD 50: APPROX. 2 GRAMS/kg (RABBIT)	EYE IRRITATION: CORROSIVE	
ACUTE INHALATION LD 50: NOT ESTABLISHED	PRIMARY SKIN EFFECT: IRRITANT	
PRINCIPLE ROUTES OF ABSORPTION: INHALATION; DERMAL CONTENT		
EFFECTS OF ACUTE EXPOSURE: TUBE CONTENTS ARE CORROSIVE TO EYES AND IRRITATING TO RESPIRATORY TRACT AND SKIN. INHALATION OF COMBUSTION PRODUCTS WILL IRRITATE EYES, LUNGS, AND MUCOUS MEMBRANES.		
EFFECTS OF CHRONIC EXPOSURE: NONE KNOWN OR REPORTED		
SECTION VII - SPILL AND LEAKAGE PROCEDURES (Control Procedures)		
ACTION FOR MATERIAL RELEASE OR SPILL: For large amounts, remove all sources of ignition. If tubes are broken, wear NIOSH/MSHA approved dust respirator, goggles, impervious coveralls, gloves and boots. Follow OSHA regulations for respirator use (See 29 C.F.R. 1910.134). Shovel or sweep up and place in an approved DOT container using non-sparking utensils. Minimize contamination with organic material. Do not return material to original container. Place swept material into fresh container, isolate and DO NOT SEAL. Wash all contaminated clothing before reuse. In the event of a large spill, call the emergency number listed below. If spill area is washed with water, collect wash water for approved disposal. Keep from entering water sources and sewers. TRANSPORTATION EMERGENCY, CALL CHEMTREC 1-800-424-9300		
WASTE DISPOSAL METHOD: Dispose of contaminated product 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. Open burning is the preferred method of disposal for pyrotechnic materials but must be done in compliance with federal, state and local regulations. Fusees should be allowed to burn to completion. Partially burned and unburned flares should be disposed of in accordance with federal, state, and local requirements. Refer to 40 C.F.R. 261.20 - .24 to determine at the time of disposal whether the product should be classified as a hazardous waste. Do not store partially burned fusees in a vehicle, closed container, warehouse or any other building.		
SECTION VIII - SHIPPING DATA		
D.O.T. CLASS (DOMESTIC): FUSEE, 4.1, NA1325, PG II (GROUND ONLY) LABEL REQ: FLAMMABLE SOLID		
INTERNATIONAL CLASS & DOMESTIC AIR: SIGNAL DEVICES, HAND, 1.4S, UN0373, PG II LABEL REQ: 1.4S		
SECTION IX - REACTIVITY DATA		
STABLE <input checked="" type="checkbox"/> UNSTABLE <input type="checkbox"/> @ _____°C _____°F	HAZARDOUS POLYMERIZATION	MAY OCCUR
		WILL NOT OCCUR <input checked="" type="checkbox"/>
CONDITIONS TO AVOID: DO NOT EXPOSE TO TEMPERATURES ABOVE 160°F, IGNITION SOURCES OF ANY KIND		
INCOMPATIBILITY (MATERIAL TO AVOID): STRONG OXIDIZERS; STRONG ACIDS; CHLORATE SALTS, GASOLINE OR OTHER FUELS.		
HAZARDOUS DECOMPOSITION PRODUCTS: SULFUR OXIDES, NITROGEN OXIDES, CARBON DIOXIDE / CARBON MONOXIDE.		
SECTION X - PHYSICAL DATA		
MELTING POINT: NO DATA	VAPOR PRESSURE: NO DATA	VOLATILES: NO DATA
BOILING POINT: NO DATA	SOLUBILITY IN WATER: >300 g/l powder	EVAPORATION RATE: NO DATA
SPECIFIC GRAVITY (H ₂ O = 1): NO DATA	pH NO DATA	VAPOR DENSITY (AIR = 1): NO DATA

INFORMATION FURNISHED BY:

JEFFREY W. JOHNSON

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STANDARD FUSEE CORPORATION/ORION SAFETY PRODUCTS

P.O. BOX 1047

EASTON, MD 21601

HIGHWAY and RAILWAY PRODUCTS 1-800-637-7807

ORION MARINE PRODUCTS: 1-800-851-5260

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