

## MATERIAL SAFETY DATA SHEET

### SECTION I: PRODUCT IDENTIFICATION

PRODUCT NAME: **White Lightning**

CHEMICAL FAMILY: Mixture of Oxychlorine Compounds

SYNONYMS: N/A CAS#: None (Mixture)

NFPA RATING: (with 0 for no hazard to 4 for life threatening)  
Fire: 0 Health: 1 Reactivity: 1 Special: None

WARNING STATEMENT: Product may cause eye and skin irritation

EPA REGISTRATION NUMBER: 9804-1

REVISION DATE: July 12, 1995

SUPERCEDES: June 1994

### SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT (CAS #)

	OSHA ACGIH		TLV	STEL	OTHER
	PERCENT	PEL			
Sodium Chlorite (7758-19-2)	3.35 Minimum	NE	NE	NE	Irritant
Chlorine Dioxide (10049-04-4)	Trace	0.1 PPM	0.1 PPM	.03 PPM	SARA 313
TOTAL	3.35				

NE= NOT ESTABLISHED NL= NOT LISTED  
(C) = IDENTIFIED AS A CARCINOGEN BY OSHA, IARC, NTP,  
OR ROTECs

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not classified as "Hazardous" per this OSHA Standard may be listed. The identity of other Ingredients will be made available as provided in this standard.

### SECTION III: PHYSICAL/CHEMICAL DATA

APPEARANCE AND ODOR: Clear liquid with a very faint chlorinous odor.

BOILING POINT: 213° F (100.5° C)

MELTING POINT: N/A

VAPOR PRESSURE: 23.7 mm Hg (25°C)

VAPOR DENSITY: 0.02 kg/m<sup>3</sup>

SPECIFIC GRAVITY: 1.03 g/ml (20°C)

VOLATILE ORGANIC COMPOUNDS: < 0.1% by weight)

OCTANOL/WATER PARTITION COEFFICIENT: NE

EVAPORATION RATE: Comparable to Water

SOLUBILITY IN WATER: Complete

pH CONCENTRATE: 8.0 TO 8.5

OTHER DISTINGUISHING CHARACTERISTICS: N/A

### SECTION IV: FIRE AND EXPOSIVE HAZARD INFORMATION

FLASH POINT: None to solution boiling point.

Method: N/A

FLAMMABLE LIMITS (% BY VOLUME):

Lower: N/A Upper: N/A

AUTOIGNITION TEMPERATURE: N/E

DECOMPOSITION TEMPERATURE: N/E (For dry sodium chlorite: 180-200°C)

FIRE EXTINGUISHING MEDIA: Water unless contraindicated by other material involved in fire.

FIRE-FIGHTING EQUIPMENT: Standard protective gear with self-contained breathing apparatus.

SPECIAL FIRE-FIGHTING PROCEDURES: Do not allow White Lightning solutions to evaporate to dryness. If chlorine dioxide gas is produced, vent to atmosphere. Open or vent any large containers of White Lightning.

UNUSUAL FIRE OR EXPLOSIVE HAZARDS: The sodium chlorite in dried White Lightning is a strong oxidizer, which supports combustion. Chlorine dioxide, which may evolve from White Lightning solutions, is explosive in the gaseous phase at concentrations greater than 10% by volume. Do not allow chlorine dioxide gas to accumulate within a confined space.

### SECTION V: RADIOACTIVITY DATA

STABILITY: Product is stable.

CONDITIONS TO AVOID: Avoid storing product under conditions in which it could evaporate to crystalline salt.

INCOMPATIBLE MATERIALS: Avoid accidental contact with acids, chlorine compounds, hypochlorites (bleach), sulfur and sulfite compounds, phosphorus, organic solvents, and combustible/flammable materials.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Exposure to acids or chlorine compounds can produce uncontrolled generation of chlorine dioxide gas.

**HAZARDOUS POLYMERIZATION:** Does not occur.

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## **SECTION VI: HEALTH HAZARD DATA**

**INGESTION:** Rat Oral LD 50: 4,360mg/kg. Ingestion may produce gastric discomfort, nausea, vomiting, and diarrhea. Intake of large quantities may produce methemoglobinemia.

**EYE CONTACT:** Based on rabbit studies, White Lightning has been given an EPA Category III rating as a mild irritant. Exposure can produce localized irritation, contact dermatitis, mild erythema, and edema.

**SKIN ABSORPTION:** Highly unlikely to be absorbed through the skin in toxic amounts. Rabbit Acute Dermal LD 50 > 2,020 mg/kg.

**INHALATION:** Acute inhalation: LC 50 > 5.6l mg/l. Prolonged  
Inhalation of fog or mist containing White Lightning may be irritating to nose and throat.

**SYSTEMIC AND OTHER EFFECTS:** None Known.

**CHRONIC EXPOSURE EFFECTS:** May cause localized irritation to areas exposed to product.

### **MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:**

Skin disorders, such as dermal allergies and dermatitis. Exposure to chlorine dioxide produced by activation can aggravate pulmonary disorders, such as emphysema

**CARCINOGENICITY:** Active ingredients are not listed by ROTECS, OSHA, IRC, or NTP. No evidence to date implicating product as carcinogen or tumor promoter.

**MUTAGENICITY:** Though product active ingredient is a chemical oxidant, no evidence to date for mutagenicity from whole animal or in vitro studies.

**REPRODUCTIVE EFFECTS:** No known effects to date.

**OTHER HEALTH HAZARDS/HEALTH EFFECTS:** None known.

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## **SECTION VII: FIRST AID**

**TARGET ORGANS:** Skin, Eyes. For chlorine dioxide produced from activation: respiratory tract and exposed mucous membranes.

**SYMPTOMS OF OVER-EXPOSURE:** Skin and eye irritation. Exposure to chlorine dioxide from activation can produce coughing, sore throat, headache, and dizziness.

**SKIN CONTACT:** Wash affected area thoroughly with soap and water. Remove contaminated clothing and rinse thoroughly with water before laundering or discard. If irritation occurs, seek medical attention.

**EYE CONTACT:** Flush eyes thoroughly with water, making certain  
Eyelids are held open. If irritation or burning persist, seek medical attention.

**INHALATION:** Unactivated White Lightning normally has no respiratory effects. If exposure to chlorine dioxide produced from activation occurs, remove victim to fresh air. Contact a physician if respiratory distress continues.

**INGESTION: DO NOT INDUCE VOMITING.** Contact a physician of Poison Control Center immediately.

**PLEASE NOTE:** Above procedures are recommended as emergency first aid precautions only. They are not intended to replace or supplant the treatment advice of a physician or other authorized health care specialist.

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## **SECTION VIII: CONTROL MEASURES/PERSONAL PROTECTION EQUIPMENT**

**VENTILATION:** Open air or good room ventilation is normally adequate for safe use of this product. Avoid breathing any vapors of fumes resulting from acid activation.

**RESPIRATORY PROTECTION:** In accordance with OSHA regulations (29CFR 1910.134 and 29 CFR 1910.1000), fogging or spraying applications may require worker respiratory protection such as: (1) NIOSH/MSHA approved air-purifying respirators, or (2) NIOSH/MSHA approved canister/cartridge facial respirators rated for chlorine/acid vapors or specified for chlorine dioxide.

**EYE PROTECTION:** Good manufacturing practice recommends use of chemical safety goggles for all applications involving chemical handling.

**PROTECTIVE CLOTHING:** Good manufacturing practice recommends that, at a minimum, rubber, neoprene, or other chemically impervious gloves be worn for all applications involving chemical handling.

**OTHER PROTECTIVE MEASURES:** Product should be stored and applied in close proximity to a safety shower, chemical eyewash station, or other fresh water source.

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## **SECTION IX: SPILL, LEAK, AND DISPOSAL PROCEDURES**

**ENVIRONMENTAL NOTIFICATION:** All spills and leaks involving more than 10 gallons should be reported to the nearest regional EPA office or designated state emergency response office within 24 hours. Spills from ocean vessels or which may contaminate U.S. coastal waterways should be reported to the nearest Coast Guard office within 24 hours.