



OXIFLO® SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Identifier:

OXIFLO®

Other means of Identification:

Sodium chlorite solution

Recommended Use:

OXIFLO is a registered antimicrobial pesticide (EPA Registration Number: 9804-6). Consult the OXIFLO label for a complete list of permitted uses.

Chemical Manufacturer:

Kemin Industries, Inc.
2650 Venture Drive
Norman, Oklahoma 73069
Phone: (405) 329-5556
Fax: (405) 329-2681

Emergency Telephone Number:

Chemtrec for transportation emergencies in the United States, Canada, Puerto Rico, and Virgin Islands 1-800-424-9300; All other areas 1-703-527-3887
American Association of Poison Control Centers 1-800-222-1222
Chemtrec contract number 2749

SECTION 2: HAZARD(S) IDENTIFICATION

Classification in accordance with OSHA 29 CFR 1910.1200 (d):

Eye Damage/Irritation: Category 1
Skin Corrosion/Irritation: Category 1B
Specific Target Organ Toxicity (Repeated Exposure): Category 2
Corrosive to Metals: Category 1
Acute Oral Toxicity: Category 4

GHS Label elements, including precautionary statements:

Signal word: **DANGER**

Pictograms:**Hazard Statements:**

Corrosive. Causes severe skin burns and eye damage.

Harmful if swallowed.

May cause damage to cardiovascular system, blood, spleen, digestive system and stomach through prolonged or repeated exposure by oral ingestion.

May be corrosive to metals.

Precautionary statements:

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Do not breathe mist or spray.

Wear protective gloves and clothing, eye protection and face protection.

Store locked up. Keep only in original container.

Response statements:

If in eyes: Immediately call a poison center or physician. Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

If swallowed: Rinse mouth. Do NOT induce vomiting. Call a poison center or doctor if you feel unwell.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.

Get medical attention if you feel unwell.

Absorb spillage with non-combustible material to prevent material damage.

Store in corrosive resistant container.

Dispose of contents and container in accordance with local, state and federal regulations.

Hazards not otherwise classified:

Dried material may cause fire in contact with combustibles.

Contact with acids or chlorine produces toxic chlorine dioxide gas.

This substance is a potential endocrine disruptor.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Substance	CAS #	Concentration
Sodium chlorite	7758-19-2	15%
Water	7732-18-5	75 – 85%

If the specific chemical identity and/or the exact percentage of an ingredient are not specified, the information has been withheld as a trade secret.

SECTION 4: FIRST-AID MEASURES

In case of skin contact; remove contaminated clothing immediately. Wash affected area with water/shower. Get medical attention immediately. Launder contaminated clothing and shoes before reuse.

In case of eye contact; rinse thoroughly with plenty of water for at least 15 minutes and get medical attention immediately.

If swallowed; do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately call a poison center or licensed health care provider.

Toxic chlorine dioxide vapors are emitted when this product contacts acids or chlorine. If these vapors are inhaled move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Monitor patient closely for delayed development of pulmonary edema which may occur up to 48-72 hours post inhalation.

SECTION 5: FIRE-FIGHTING MEASURES

Substance does not burn but supports the combustion of flammable substances through the liberation of oxygen. Water is the preferred extinguishing media when it is compatible with the burning substance. If water is not compatible, use dry powder extinguisher.

Burning will release hydrogen chloride gas (HCl) and oxides of sodium (NaO_x).

Firefighters should wear self-contained breathing apparatus (SCBA) if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL CONTAINMENT:

Avoid allowing spilled material to dry to crystalline sodium chlorite. **Dry sodium chlorite is a strong oxidizer and creates a potential fire hazard when in contact with combustible materials.** Use a non-combustible absorbent such as sand or vermiculite to absorb spilled or leaked OXIFLO before it dries. Remove any powder residue from dried OXIFLO by rinsing with water. Absorb rinse water with sand or other non-combustible absorbent and discard. Do not discharge this product to storm drains or to any surface or groundwater source unless specifically allowed under a valid NPDES permit.

SECTION 7: HANDLING AND STORAGE

HANDLING:

Use product only as directed by the label. Avoid contact with skin and eyes; avoid breathing any vapors or fumes resulting from product activation. Wash thoroughly after handling. Thoroughly rinse all protective gear and handling equipment, such as transfer pumps and lines, with water prior to reuse or storage. Keep away from children, animals, and unauthorized personnel.

PRODUCT STORAGE:

Store in a cool, dry, well-ventilated location away from acids, chlorine and chlorine compounds, hypochlorite (bleach), organic solvents, sulfur and sulfite compounds, phosphorus, combustible/flammable materials, and direct sunlight. Keep containers tightly closed when not in use and open carefully to prevent spillage. Storage on wooden floors and pallets is not recommended. Do not contaminate water, food or feed by storage or disposal.

PACKAGING MATERIAL:

Containers used to store OXIFLO should be constructed of High-Density Polyethylene (HDPE), Fiberglass reinforced polyester with Hetrion 922 resin or equivalent (natural color with UV protection and no internal insulation), or titanium.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

No Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL) or American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit values (TLV) have been established for sodium chlorite.

Wear splash proof goggles to protect the eyes. Use gloves and protective clothing to protect against skin contact. Remove contaminated clothing immediately and laundry before reuse.

Use directions for this product typically require its activation by mixing with GRAS (generally regarded as safe) acids. The reaction leads to formation of chlorine dioxide (ClO₂) gas. Chlorine dioxide vapor from activated solutions may cause respiratory irritation. Severe overexposure may cause lung damage. Chlorine dioxide has an OSHA Permissible Exposure Limit (PEL) of 0.1 ppm and an OSHA Short Term

Exposure Limit (STEL) of 0.3 ppm. Activate and use only in well-ventilated areas. For applications where activated product is used in an enclosed area or which involve potential employee exposure, such as in a fogging or spraying application, respiratory protection is required.

RESPIRATORY PROTECTION:

In accordance with OSHA regulations (29 CFR 1910.134 and 29 CFR 1910.1000) use a NIOSH approved air purifying respirators (APR) with cartridges approved for chlorine dioxide (ClO₂).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- (a) Appearance (physical state, color, etc.):** Pale yellow liquid
- (b) Odor:** Slight odor of chlorine
- (c) Odor threshold:** Not determined
- (d) pH:** >12 @ 25°C
- (e) Melting point/freezing point:** No data available
- (f) Initial boiling point and boiling range:** 100.8°C (213.4°F)
- (g) Flash point:** Not applicable
- (h) Evaporation rate:** No data available
- (i) Flammability (solid, gas):** Not flammable
- (j) Upper/lower flammability or explosive limits:** Not flammable
- (k) Vapor pressure:** No data available
- (l) Vapor density:** No data available
- (m) Relative density:** 1.1 – 1.3 g/ml (25°C)
- (n) Solubility:** Soluble
- (o) Partition coefficient: n-octanol/water:** Not applicable (not a mixture)
- (p) Auto-ignition temperature:** Not applicable
- (q) Decomposition temperature:** Not determined
- (r) Viscosity:** No data available
- (s) Volatility:** 78 – 85% by weight
- (t) Crystallization temperature:** -8°C (17.6°F)

SECTION 10: STABILITY AND REACTIVITY

- (a) Reactivity:** Not reactive under normal temperatures and pressures.
- (b) Chemical stability:** Stable at normal temperatures and pressures.
- (c) Possibility of hazardous reactions:** Contact with acids or chlorine can result in the evolution of chlorine dioxide gas (ClO₂). Thermal decomposition products include chlorine and oxides of sodium.
- (d) Conditions to avoid:** Avoid evaporation to dryness. Dried material can ignite upon contact with combustibles. Avoid heat, flames, sparks and other sources of ignition. Avoid contamination with foreign materials. Avoid exposure to sunlight or ultraviolet light.
- (e) Incompatible materials:** Acids, Reducing agents, Combustible material, Oxidizing agents, Hypochlorite, Organic solvents and compounds, Garbage, Dirt, Organic materials, Household products, Chemicals, Soap products, Paint products, Vinegar, Beverages, Oils, Pine oil, Dirty rags, Sulfur-containing rubber, or any other foreign matter

(f) **Hazardous polymerization:** Does not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

LIKELY ROUTES OF EXPOSURE:

Oral: Harmful if swallowed.

Dermal: Causes severe skin burns.

Inhalation: Not classified, but may induce mild respiratory symptoms.

Eye contact: Causes serious eye damage.

Acute Toxicity, Oral: LD50 389 – 1800 mg/kg (rat)

Acute Toxicity, Dermal: LD50 >2000mg/kg (rabbit)

Acute inhalation toxicity: LC50 >0.58 mg/L over 4-hour exposure (rat)

Serious eye damage/eye irritation: Causes serious eye damage.

Skin irritation/Corrosion: Causes severe skin burns.

Aspiration hazard: Not classified.

Respiratory or Skin Sensitization: Not classified as a skin or respiratory sensitizer per GHS criteria.

Specific target organ toxicity – single exposure: Not classified.

Specific target organ toxicity – repeated exposure: May cause damage to cardiovascular system, blood, spleen, digestive system and stomach through prolonged or repeated exposure by oral ingestion.

Reproductive toxicity: Not classified.

Germ cell mutagenicity: Not classified.

Carcinogenicity: There is inadequate evidence for the carcinogenicity of sodium chlorite in experimental animals. No data were available from studies in humans on the carcinogenicity of sodium chlorite.

Sodium chlorite is not classified as a carcinogen by NTP, IARC, or OSHA. Not classified as a carcinogen per GHS criteria.

Hazards not otherwise classified: This substance is a potential endocrine disruptor.

SECTION 12: ECOLOGICAL INFORMATION

OXIFLO is toxic to fish and aquatic Invertebrates, oysters and shrimp. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless in accordance with the requirements of a National Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

OXIFLO does not bio-accumulate.

SECTION 13: DISPOSAL CONSIDERATIONS

Product Disposal: Dispose of in accordance with all applicable regulations. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactor. Contact with combustible materials could cause a fire. If sodium chlorite is spilled or becomes a waste, it must be disposed of in accordance with local, state, and Federal regulations by a NPDES permitted out-fall or in a permitted hazardous waste treatment, storage, and disposal facility.

CONTAINER DISPOSAL: Do not reuse or refill this container. Offer for recycling if available. Offer for reconditioning if appropriate. Triple rinse container, or equivalent, promptly after emptying.

Triple rinse as follows: Empty remaining contents into application equipment or mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip the container on its side and roll it back and forth, ensuring at least one complete revolution for 30 seconds. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this process two more times.

SECTION 14: TRANSPORT INFORMATION

U.S. DOT

UN Number: UN1908
Proper shipping name: Chlorite solution
Class: 8
Packing group: II
Marine pollutant: Yes

AIR TRANSPORT (ICAO/IATA)

UN Number: UN1908
Proper shipping name: Chlorite solution
Class: 8
Packing group: II
Marine pollutant: Yes

MARITIME TRANSPORT (IMDG)

UN Number: UN1908
Proper shipping name: Chlorite solution
Class: 8
Packing group: II
Marine pollutant: Yes

SECTION 15: REGULATORY INFORMATION

U.S. REGULATIONS

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4):

Not regulated.

EPCRA SECTION 313 (40 CFR 372.65):

Not regulated.

NATIONAL INVENTORY STATUS

U.S. INVENTORY STATUS: Toxic Substance Control Act (TSCA):

All components are listed or exempt.

Canadian Chemical Inventory:

All components of this product are listed on either the DSL or the NDSL

STATE Regulations

This product and its ingredients are not listed on the California Governor's current list of Carcinogens, Reproductive Toxicants, and/or Candidate Carcinogens (Proposition 65), but it may contain trace amounts of impurities that are listed. For additional information, contact Kemin Customer Service.

Contact Kemin Customer Service for other state-specific regulatory information, including state pesticide registration status.

FIFRA Regulations:

Registered pesticide under 40 CFR 152.10, Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), EPA Reg. No. 9804-6 (OXIFLO®)

FIFRA Labeling Requirements:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and it subject to certain labeling requirement under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels non-pesticide chemicals. The hazard information required on

the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

- FIFRA Signal Word – DANGER
- Causes irreversible eye damage and skin burns.
- Harmful if swallowed- Irritating to nose and throat.
- This product is toxic to fish and aquatic organisms.
- Dry sodium chlorite is a strong oxidizing agent. This product becomes a fire or explosive hazard if allowed to dry.
- Mix only into water- Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide a poisonous, explosive gas), and possible fire and explosion.
- Do not contaminate with garbage, dirt, organic matter, household products, chemicals, soap products, paint products, solvents, acids, vinegar, beverages, oils, pine oil, dirty rags, or any other foreign matter.

SECTION 16: OTHER INFORMATION

NOTICE: Manufacturer believes the information contained herein is accurate; however we make no guarantees with respect to such accuracy and assume no liability in connection with the use of the information contained herein by any party. Any party using this product should review all such laws, rules or regulations prior to use.

NO WARRANTY IS MADE, EXPRESS OR IMPLIED FOR A PARTICULAR PURPOSE OR OTHERWISE

Prepared: February 27, 2024