



# SAFETY DATA SHEET

Issue Date 24-Mar-2015

Revision Date 18-Apr-2024

Version 8

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product Name** BIO-TEC 25

**Other means of identification**

**Product Code** ABC100618

**UN/ID No.** UN1908

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Oxidizing Microbiocide Chlorine Dioxide Precursor.

**Uses advised against** No information available

**Manufacturer Address**

Anderson Chemical Company, 325 South Davis Avenue, Litchfield, MN 55355 (320-693-2477)

**Emergency telephone number**

Chemtrec 1-800-424-9300

**Synonyms:** Sodium Chlorite Solution; Chlorous Acid, Sodium Salt; 25% Active Sodium Chlorite Solution

**Product Use:** Bio-Tec 25 is a registered antimicrobial pesticide. EPA Registration Number 5382-43-150. It has numerous uses including uses in potable water, industrial cooling water, mollusk control, food-plant process water, wastewater, slime control in paper mills, and oilfield water. Bio-Tec 25 can also be used for poultry processing water.

**Restrictions on Use (United States):** This is a pesticide product; do not use in a pesticide application that is not approved by the EPA. EPA Reg. No. 5382-43-150

# BIO-TEC 25

Rev. Date: 18-Apr-2024  
Rev. Num. 08

---

**Chemical Family:** Sodium Chlorite Solution

---

## SECTION 2. HAZARDS IDENTIFICATION

---

**OSHA REGULATORY STATUS:** This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**HEALTH CANADA HPR REGULATORY STATUS:** This material is considered hazardous by the Health Canada Hazardous Products Act's Hazardous Products Regulations (HPR) (SOR/2015-17).

---

### EMERGENCY OVERVIEW:

**Color:** Pale, yellow  
**Physical State:** Liquid  
**Appearance:** Clear to slightly yellow liquid  
**Odor:** Slight chlorine odor

**Signal Word:** **DANGER**

**MAJOR HEALTH HAZARDS:** 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 VIA ORAL ROUTE. MAY BE HARMFUL IN CONTACT WITH SKIN. THIS MATERIAL IS A POTENTIAL ENDOCRINE DISRUPTOR.

**PHYSICAL HAZARDS:** MAY BE CORROSIVE TO METALS. OXIDIZING AGENT. MAY INTENSIFY FIRE. Dried material can ignite upon contact with combustibles.

**AQUATIC TOXICITY:** Acute Aquatic Toxicity: Very toxic to aquatic life. Chronic Aquatic Toxicity: Harmful to aquatic life with long lasting effects.

**PRECAUTIONARY STATEMENTS:** Keep only in original container. Keep away from combustible materials. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe dust, vapor or spray mist. Wash hands and exposed skin thoroughly after handling. Do not touch eyes. Do not eat, drink, or smoke when using this product. Wear protective gloves, protective clothing, eye, and face protection. Wash contaminated clothing before reuse. Avoid release to the environment.

**ADDITIONAL HAZARD INFORMATION:** This material is corrosive and an oxidizer. This material is a more severe corrosive and oxidizer when dry. Dry sodium chlorite is a strong oxidizing agent. This product becomes a fire or

---

# BIO-TEC 25

Rev. Date: 18-Apr-2024  
Rev. Num. 08

explosive hazard if allowed to dry. This material's pH and oxidative action contribute to its health and physical hazards. If not stored in original container; store in corrosive resistant container constructed of materials identified in Section 7 of this SDS. Always package, store, transport and dispose of all waste and contaminated equipment in accordance with all applicable federal, state, and local health and environmental regulations. 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. Other incompatible materials which should be avoid which include oxidizers, reducing agents, and combustible materials.

## HAZARD CLASSIFICATION:

<b>GHS: PHYSICAL HAZARDS:</b>	Oxidizing Liquid - GHS Category 3: May intensify fire; oxidizer Corrosive to Metals - Category 1: May be corrosive to metals
<b>GHS: CONTACT HAZARD - SKIN:</b>	Category 1B - Causes severe skin burns and eye damage
<b>GHS: CONTACT HAZARD - EYE:</b>	Category 1 - Causes serious eye damage
<b>GHS: ACUTE TOXICITY - ORAL:</b>	Category 4 - Harmful if swallowed
<b>GHS: TARGET ORGAN TOXICITY (REPEATED EXPOSURE):</b>	Category 2 - May cause damage to cardiovascular system, blood, spleen, digestive system, and stomach through prolonged or repeated exposure via oral route
<b>GHS: HEALTH HAZARDS NOT OTHERWISE CLASSIFIED (HNNOC)</b>	- Acute Toxicity [Dermal], Category 5 - May be harmful in contact with skin
<b>HAZARDS NOT OTHERWISE CLASSIFIED (HNOC):</b>	- AQUATIC TOXICITY - ACUTE: Category 1 (Very toxic to aquatic life) - AQUATIC TOXICITY - CHRONIC: Category 3 (Harmful to aquatic life with long lasting effects)

**GHS SYMBOL:** Oxidizer, Corrosive, Health hazards, Exclamation mark, Environmental hazard



**GHS SIGNAL WORD:** DANGER

## GHS HAZARD STATEMENTS:

### GHS - Physical Hazard Statement(s)

- May intensify fire; oxidizer
- May be corrosive to metals

### GHS - Health Hazard Statement(s)

- Harmful if swallowed
- Causes severe skin burns and eye damage

# BIO-TEC 25

Rev. Date: 18-Apr-2024

Rev. Num. 08

- May cause damage to cardiovascular system, blood, spleen, digestive system, and stomach through prolonged or repeated exposure via oral route

## **Additional Hazards - GHS Hazards Not Otherwise Classified (HNOC):**

- MAY BE HARMFUL IN CONTACT WITH SKIN
- ACUTE AQUATIC HAZARD - CATEGORY 1: Very toxic to aquatic life
- CHRONIC AQUATIC HAZARD - CATEGORY 3: Harmful to aquatic life with long lasting effects

## **GHS - Precautionary Statement(s) - Prevention**

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Keep away from combustible materials
- Keep only in original container or container compatible with product (see Section 7 - Safe Storage Conditions)
- Do not breathe mist, vapors, or spray
- Wash hands and exposed skin thoroughly after handling. Do not touch eyes
- Do not eat, drink, or smoke when using this product
- Wear protective gloves, protective clothing, eye, and face protection
- Avoid release to the environment

## **GHS - Precautionary Statement(s) - Response**

- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- IF SWALLOWED: Get medical help
- IF INHALED: Remove person to fresh air and keep comfortable for breathing
- IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes
- IF ON SKIN: Get medical help immediately
- Specific treatment (see "Notes to Physician" in Section 4 of the SDS)
- Wash contaminated clothing before reuse
- IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- IF IN EYES: Get medical help
- Get medical help if you feel unwell
- In case of fire: Use large amounts of water to extinguish
- Absorb spillage to prevent material damage
- Collect spillage

## **GHS - Precautionary Statement(s) - Storage**

- Store locked up
- Store in corrosive resistant container constructed of materials identified in Section 7 of this SDS

## **GHS - Precautionary Statement(s) - Disposal**

- Dispose of contents and container in accordance with applicable local, regional, national, and/or international regulations

## **Physical Hazards of Significance Not Mentioned in GHS Classification**

- According to NFPA 400, this material is classified as a Class 2 Oxidizer
- NFPA Class 2 Oxidizer (Class 2 Oxidizers will increase the burning rate of combustible materials with which they come in contact. In addition, they may cause spontaneous ignition when in contact with a combustible material)
- This product becomes a fire or explosive hazard if allowed to dry. Dry sodium chlorite is a strong oxidizing agent
- 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. Other incompatible materials which should be avoid which include oxidizers,

# BIO-TEC 25

Rev. Date: 18-Apr-2024  
Rev. Num. 08

reducing agents, and combustible materials.

## Health Hazards of Significance Not Mentioned in GHS Classification

- May be harmful in contact with skin
- Potential endocrine disruptor

### PBT and vPvB assessment:

Not applicable

Component	U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing	EU - PBT / vPvB Status
Sodium Chlorite	Not listed	PBT/PvBT assessment does not apply Considered NOT to be an EU PBT
Sodium Chloride	Not listed	PBT/PvBT assessment does not apply Considered NOT to be an EU PBT
Sodium Chlorate	Not listed	PBT/PvBT assessment does not apply Considered NOT to be an EU PBT

### Endocrine Disruptor Assessment:

The Endocrine Disruptors Exchange's (TEDX) List of Potential Endocrine Disruptors database of chemicals has one or more verified citations published, accessible, primary scientific research demonstrating effects on the endocrine system.

Component	Endocrine Screening List
Sodium Chlorite	TEDX Potential Endocrine List: Present

See Section 11: TOXICOLOGICAL INFORMATION

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Systematic Chemical Name	Common name	CAS Number	Percent [%]
Water 7732-18-5	Dihydrogen monoxide (H <sub>2</sub> O)	Water	7732-18-5	68 - 76
Sodium Chlorite 7758-19-2	Chlorous Acid, Sodium Salt	Sodium Chlorite	7758-19-2	24.25 - 25.75
Sodium Chloride 7647-14-5	Sodium Chloride (NaCl)	Sodium Chloride (Salt)	7647-14-5	1 - 3
Sodium Chlorate 7775-09-9	Chloric Acid Sodium Salt	Sodium Chlorate	7775-09-9	< 0.5

## SECTION 4. FIRST AID MEASURES

---

**EYE CONTACT:** IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF IN EYES: Get medical help.

**SKIN CONTACT:** IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes. IF ON SKIN: Get medical help immediately. Specific treatment (see "Notes to Physician" in Section 4 of the SDS). Wash contaminated clothing before reuse.

**INHALATION:** IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF INHALED: Get medical help if you feel unwell.

**INGESTION:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Get medical help.

### Most Important Symptoms/Effects (Acute and Chronic [Delayed]):

#### Acute Symptoms/Effects:

**Eye:** Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eyelids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to internal eye structures.

**Skin:** Skin Corrosion. Skin exposure to gas or liquid may cause redness, irritation, burning sensation, swelling, blister formation, first, second-, or third-degree burns.

**Inhalation (Breathing):** Breathing (Inhalation): Inhalation of airborne material may cause irritation, redness of upper and lower airways, coughing, laryngeal spasm and edema, shortness of breath, bronchi-constriction, and possible pulmonary edema. Severe and permanent scarring may occur. The pulmonary edema may develop several hours after a severe acute exposure.

**Ingestion (Swallowing):** Ingestion: Exposure by ingestion may cause irritation, nausea, and vomiting. Oxidation may cause significant metabolic issues such as: methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

#### Chronic (Delayed) Symptoms/Effects:

Repeated and prolonged skin contact may cause a dermatitis.

**Protection of First-Aid Responders:** Protect yourself by avoiding contact with this material. Avoid contact with skin and eyes. Do not ingest. Use personal protective equipment (PPE). Refer to Section 8 for specific PPE recommendations. At minimum, treating personnel should utilize PPE sufficient for prevention of bloodborne pathogen transmission.

#### Notes to Physician:

Treat as a corrosive due to the pH of this material. For prolonged exposures and significant exposures, consider delayed injury to exposed tissues. Oxygen should be immediately administered to all symptomatic patients. Treatment is supportive care. Follow normal parameters for airway, breathing, and circulation. Ingestion of even small amounts of solution should be closely monitored for methemoglobinemia, hemolysis, and glutathione depletion, followed by renal failure. This chemical acts similarly to its related compound chlorate, and produces a drug induced G6PD deficiency. Methylene blue is the primary antidote for methemoglobinemia early in the initial stages of chlorite/chlorate

---

---

intoxication. Exchange blood transfusion as the preferred course in patients with G6PD deficiency, or NDAPH methemoglobin reductase deficiency, in severely symptomatic patients if methemoglobinemia is not responsive to methylene blue treatment, and in patients with methemoglobinemia and hemolysis. Methylene blue has not been uniformly reported as effective; however, it can be considered in early poisoning if blood methemoglobin concentrations are 30% or greater, or at concentrations less than 30% in cases where other factors are also contributing to circulatory compromise. Consult a medical toxicologist or Poison Center for recommendations for dosage and administration for the specific case involved. Dosing is different for neonates, children, and adults. Chlorine dioxide vapors are emitted when this product contacts acids or chlorine. If these vapors are inhaled, monitor patient closely for delayed development of pulmonary edema which may occur up to 48-72 hours post-inhalation. Following ingestion, neutralization and use of activated charcoal is not indicated. In vitro studies have shown that activated charcoal does not adsorb chlorate/chlorite ions. The benefit of decontamination after ingestion is not certain and not recommended.

**Interaction with Other Chemicals Which Enhance Toxicity:** Mixing with ammonia, acids, detergents, or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucus membranes.

**Medical Conditions Aggravated by Exposure:** May aggravate preexisting conditions such as. Eye disorders that decrease tear production or have reduced integrity. Skin disorders that compromise the integrity of the skin. Respiratory conditions including asthma and other breathing disorders. Ingestion may induce G6PD deficiency, hemolysis and renal failure. G6PD deficiency, hemoglobinopathies, renal compromise, and conditions causing hypoxia may be aggravated by ingestion of this material.

---

## **SECTION 5. FIRE FIGHTING MEASURES**

---

**Fire Hazard:** According to NFPA 400, this material is classified as a Class 2 Oxidizer. Class 2 Oxidizers will increase the burning rate of combustible materials with which they come in contact. In addition, they may cause spontaneous ignition when in contact with a combustible material. Avoid evaporation to dryness. Dried material can ignite upon contact with combustibles.

**Explosive properties:** This product may represent an explosion hazard if it contacts acids, chlorine, or organic materials (Refer to Sections 7 and 10).

**Extinguishing Media:** Use extinguishing agents appropriate for surrounding fire. Water is the only effective extinguisher of sodium chlorite.

**Unsuitable Extinguishing Media:** Water is the only effective extinguisher of sodium chlorite.

**Unusual Hazards:** Do not allow sodium chlorite solutions to evaporate to dryness; this product becomes a fire or explosion hazard if allowed to dry and can ignite in contact with combustible materials. Contaminated clothing may become a risk factor since the liquid sodium chlorite will dry and become a fire hazard; therefore, take off immediately all contaminated clothing and wash before reuse.

**Fire Fighting:** Wear NIOSH approved positive-pressure self-contained breathing apparatus. Consider evacuation of personnel located downwind. Keep unnecessary people away, isolate hazard area and deny entry. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Flood with fine water spray. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

**Hazardous Combustion Products:** Chlorine; Oxides of sodium

**Sensitivity to Mechanical Impact:** Not sensitive.

**Sensitivity to Static Discharge:** Not sensitive.

**Lower Flammability Level (air):** Not flammable

**Upper Flammability Level (air):** Not flammable

**Flash point:** Not applicable

**Auto-ignition Temperature:** Not applicable

**GHS: PHYSICAL HAZARDS:**

- Oxidizing Liquid - GHS Category 3: May intensify fire; oxidizer
- Corrosive to Metals - Category 1: May be corrosive to metals

**Physical Hazards of Significance Not Mentioned in GHS Classification**

- According to NFPA 400, this material is classified as a Class 2 Oxidizer
  - NFPA Class 2 Oxidizer (Class 2 Oxidizers will increase the burning rate of combustible materials with which they come in contact. In addition, they may cause spontaneous ignition when in contact with a combustible material)
  - This product becomes a fire or explosive hazard if allowed to dry. Dry sodium chlorite is a strong oxidizing agent
  - 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. Other incompatible materials which should be avoid which include oxidizers, reducing agents, and combustible materials.
- 

## SECTION 6. ACCIDENTAL RELEASE MEASURES

---

**Personal Precautions:** Isolate hazard area and deny entry. Keep unnecessary and unprotected personnel from entering the area. Avoid contact with skin and eyes. If material is allowed to dry, DO NOT make airborne. DO NOT breathe dust. Wear appropriate personal protective equipment recommended in Section 8 of the SDS.

**Personal Protective Equipment:** Cleanup personnel must wear proper protective equipment. For Unknown Concentrations or exposures above IDLH (Immediately Dangerous to Life or Health) - Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece. See Section 8 for information on personal protective equipment.

**Emergency Procedures:** Evacuate unnecessary personnel and eliminate all sources of ignition. For other than minor leaks, immediately implement predetermined emergency plan. Restrict access to the area until cleanup is complete. Stop the release if it can be done safely from a distance. Prevent material and runoff from entering sewers and waterways if it can be done safely well ahead of the release. Sodium chlorite may represent an explosion hazard if it contacts acids or chlorine. If such contact is possible, evacuation procedures must be placed into effect. Cleanup

---



---

personnel must wear proper protective equipment. Notify all downstream water users of possible contamination.

**Environmental Precautions:** This material is harmful to aquatic life. This material is alkaline and may raise the pH of surface waters with low buffering capacity. Keep out of water supplies and sewers. Releases should be reported, if required, to appropriate agencies. See Section 12 for additional ecological information.

**Methods and Materials for Containment, Confinement, and/or Abatement:** Contain spill. Spilled materials may be absorbed using non-combustible and non-organic commercial absorbents. Dampen and scoop spilled material into clean, dedicated equipment. Every attempt should be made to avoid mixing spilled material with other chemicals or debris when cleaning up. Keep collected material damp and put into drums. Dried material can ignite upon contact with combustibles. Dispose of promptly. Dispose of in accordance with all applicable regulations.

### Methods and Materials for Clean-up

**Recovery:** Liquid sodium chlorite solutions can be absorbed using non-combustible and non-organic commercial absorbents and placed in corrosive-resistant containers. Contact Anderson Chemical Company Technical Service for confirmation of other types of absorbents before utilizing.

**Neutralization:** Due to heat evolution during neutralization reaction, neutralization should be avoided whenever possible. Sodium chlorite neutralization procedures are available by contacting Anderson Chemical Company Technical Service Department. Sodium chlorite neutralization procedures must be carried out ONLY by properly trained personnel wearing appropriate personal protective equipment and ONLY after thoroughly reviewing the neutralization procedures with manufacturer.

**Final Disposal:** Runoff may pollute waterways. 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. For waste disposal, see section 13.

**Additional Disaster Prevention Measures:** Keep away from water supplies and sewers. Do not use combustible absorbents such as rags, sawdust, and other natural organic sorbents.

---

## SECTION 7. HANDLING AND STORAGE

---

### Handling:

**Precautions for Safe Handling:** Do not contaminate sodium chlorite with incompatible materials such as dirt, organic matter, oxidizers, reducing agents, chemicals, soap products, solvents, acids, paint products, or combustible materials. Do not store or transport sodium chlorite with incompatible materials. 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. Triple rinse empty containers thoroughly with water and dispose of in accordance with label instructions.

**Technical measures/precautions:** All instrumentation should be designed to prevent possible solution freezing in the instrument. Greaseless lubricants should be used in mechanical equipment where there is a potential for leaks or spills. Pumps should not be operated against closed valves as this may result in heating solution above its decomposition temperature.

**Other precautions:** This material is a more severe corrosive and oxidizer when dry. This material's pH and oxidative action contribute to its health and physical hazards.

---

---

**Prevention of contact:** Do not breathe dust or spray mist. Wash skin and contaminated clothing thoroughly after handling. Do not eat, drink, or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves, protective clothing, eye, and face protection. Avoid contact with incompatible materials. Avoid release to the environment. If sodium chlorite is spilled on clothing, remove, and wash contaminated clothing at once to avoid the potential of fire.

## **Storage:**

**Safe Storage Conditions:** Store and handle in accordance with all current regulations and standards. (NFPA Oxidizer Class 2). Store in tightly closed, labeled containers away from combustible materials. Store in a cool, dry area. Store in a well-ventilated area. Store below 212°F (100°C). Avoid exposure to sunlight or ultraviolet light. Keep separated from incompatible substances (see below or Section 10 of the Safety Data Sheet). Sodium chlorite solutions exceeding 30% concentration have a greater potential to crystallize at ambient temperatures. Normally, these products should be diluted prior to storage. Where bulk storage of concentrated solutions is required, the tank must be placed in a temperature-controlled location to ensure that the product is maintained at a temperature above its crystallization point. Direct heat should not be applied to the storage tank.

**Technical measures:** All equipment purchased for handling and storing sodium chlorite solutions should be verified by the manufacturer or vendor to be suitable for use with sodium chlorite. Use appropriate containment to avoid environmental contamination. The storage area should not be exposed to direct sunlight or ultraviolet light. It should be fire resistant and have an effective sprinkler system with good ventilation. Do not allow solution to evaporate to dryness; this product becomes a fire or explosion hazard if allowed to dry and can ignite in contact with combustible materials. Storage conditions should comply with the requirements established by the National Fire Protection Association's NFPA 1 – Uniform Fire Code and/or NFPA 400 – Hazardous Materials Code and/or the International Code Council's (ICC) International Fire Code. Since both NFPA and ICC codes are used throughout the U.S., consult with local fire departments to determine which codes apply.

**Incompatible Substances:** 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.

**Packaging or Materials of Construction:** Any containers used to store sodium chlorite solutions should be constructed of one of the following materials:

1. Fiberglass reinforced polyester with Hetron 922 resin or equivalent, color natural, with UV protection, and no internal insulation
2. High density polyethylene (HDPE)
3. Titanium.

## **GHS: PHYSICAL HAZARDS:**

- Oxidizing Liquid - GHS Category 3: May intensify fire; oxidizer
- Corrosive to Metals - Category 1: May be corrosive to metals

## **Physical Hazards of Significance Not Mentioned in GHS Classification**

- According to NFPA 400, this material is classified as a Class 2 Oxidizer
- NFPA Class 2 Oxidizer (Class 2 Oxidizers will increase the burning rate of combustible materials with which they come in contact. In addition, they may cause spontaneous ignition when in contact with a combustible material)
- This product becomes a fire or explosive hazard if allowed to dry. Dry sodium chlorite is a strong oxidizing agent
- 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. Other incompatible materials which should be avoid which include oxidizers,

reducing agents, and combustible materials.

## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### **REGULATORY EXPOSURE LIMIT(S):**

This product does not contain any components that have regulatory occupational exposure limits (OEL's).

### **NON-REGULATORY EXPOSURE LIMIT(S):**

This product does not contain any components that have advisory (non-regulatory) occupational exposure limits (OEL's); however, the manufacturer has established internal Recommended Exposure Level(s) [REL(s)] as noted below.

Recommended Exposure Limits (REL's) are non-regulatory occupational exposure limits the manufacturer has established based on health effects data.

Component	OXY REL 8 hr TWA	OXY REL STEL	OXY REL Ceiling
Sodium Chlorite 7758-19-2 (24.25 - 25.75 %)	1 mg/m <sup>3</sup>	Not applicable	Not applicable

**ENGINEERING CONTROLS:** Use only in well-ventilated areas. Provide local exhaust ventilation where vapor, mist or aerosols may be generated. Where sodium chlorite dust may be present, ventilation of the work area should be accomplished as necessary to maintain concentrations in air below 1 mg/m<sup>3</sup>.

### **PERSONAL PROTECTIVE EQUIPMENT:**

**Eye Protection:** Wear chemical safety goggles. Where splashing or spraying is possible, use a face-shield in addition to chemical protective goggles. Provide an emergency eyewash fountain and quick drench shower in the immediate work area.

**Skin and Body Protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with water, and launder clothing before reuse or dispose of properly. Leather gloves and leather boots should not be allowed in work area. Clothing should be rinsed with water before disposal.

**Hand Protection:** Wear appropriate chemical resistant gloves. Consult a glove supplier for assistance in selecting an appropriate chemical resistant glove.

**Protective Material Types:** Neoprene.

**Respiratory Protection:** A NIOSH approved full-face respirator equipped with N95 (dust, fume, mist) cartridges may be permissible when symptoms have been observed that are indicative of overexposure. If chlorine or chlorine dioxide is present, an acid gas cartridge is also required. An approved self-contained breathing apparatus operated in the pressure demand mode or an airline respirator with escape pack is required when an air purifying respirator is not adequate or for spills / emergencies of unknown concentrations. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.

**HYGIENE MEASURES:** Obtain proper training prior to use. An emergency eyewash fountain and quick drench shower should be provided in the immediate work area. Good housekeeping practices are important where sodium

---

chlorite is used. All spills should be contained and immediately recovered or flushed with water into a chemical sewer or a segregated holding tank or pond provided for the specific purpose of neutralization. Sodium chlorite must never be flushed to sanitary sewer or other outlet connecting to waterways to uncontrolled runoff streams. Contact local and federal authorities for applicable regulations. Recovered sodium chlorite from a spill should never be reintroduced into the process due to the high probability of contamination.

---

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

---

<b>Appearance:</b>	Clear to slightly yellow liquid
<b>Physical State:</b>	Liquid
<b>Color:</b>	Pale, yellow
<b>Odor:</b>	Slight chlorine odor
<b>Melting Point/Range:</b>	Not applicable to liquids
<b>Freezing Point/Range:</b>	No data available
<b>Boiling Point °C</b>	102.0 °C
<b>Boiling point / boiling range</b>	215.6 - 233.6 °F (102 - 112 °C)
<b>Lower Flammability Level (air):</b>	Not flammable
<b>Upper Flammability Level (air):</b>	Not flammable
<b>Explosion limits:</b>	Not applicable
<b>Flash point:</b>	Not applicable
<b>Auto-ignition Temperature:</b>	Not applicable
<b>Decomposition Temperature:</b>	Not applicable
<b>pH:</b>	>12 @ 25°C
<b>Kinematic viscosity</b>	No data available
<b>Water Solubility:</b>	Soluble
<b>Partition Coefficient (n-octanol/water):</b>	No data available
<b>Vapor Pressure:</b>	No data available
<b>Density:</b>	10.2 lbs/gal @ 25°C
<b>Relative Density:</b>	No data available
<b>Relative Density/Specific Gravity (water=1):</b>	1.1 to 1.3 @ 25°C
<b>Vapor Density (air=1):</b>	No data available
<b>Particle Size Distribution:</b>	Not applicable
<b>Other Information</b>	
<b>Molecular Formula:</b>	NaClO <sub>2</sub>
<b>Chemical Family:</b>	Sodium Chlorite Solution
<b>Molecular Weight:</b>	90.45
<b>Explosive properties:</b>	This product becomes a fire or explosive hazard if allowed to dry.
<b>Oxidizing properties:</b>	Oxidizing agent. Dry sodium chlorite is a strong oxidizing agent.
<b>Crystallization Temperature:</b>	-8°C (17.6°F)
<b>Volatility:</b>	59-85% by volume

---

---

## SECTION 10. STABILITY AND REACTIVITY

---

**Chemical Stability:** Stable at normal temperatures and pressures.

**Reactivity:** Not reactive under normal temperatures and pressures.

**Possibility of Hazardous Reactions:** Avoid heat, flames, sparks, and other sources of ignition. Avoid evaporation to dryness. Dried material can ignite upon contact with combustibles. Avoid contamination with foreign materials. Avoid exposure to sunlight or ultraviolet light.

**Conditions to Avoid (e.g., static discharge, shock, or vibration):** Avoid mechanical shock or impact, if contaminated.

**Incompatible Substances:** 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.

**Hazardous Decomposition Products:** Chlorine dioxide is formed on contact with acids, chlorine, and hypochlorite, Thermal decomposition products include chlorine and oxides of sodium.

**Hazardous Polymerization:** Will not occur.

---

## SECTION 11. TOXICOLOGICAL INFORMATION

---

### POTENTIAL HEALTH EFFECTS:

#### ACUTE TOXICITY:

**Eye contact:** Causes serious eye damage. Eye exposures may cause burns to the eye lids, conjunctivitis, corneal edema, and corneal burn. May cause permanent eye damage including blindness. Significant and prolonged contact may cause damage to the internal eye structures.

**Skin contact:** Causes severe skin burns and eye damage. May cause redness, irritation, burning sensation, swelling, blister formation, first, second, or third-degree burns. Acute dermal toxicity was dependent on the product concentration and its physical state. The most concentrated existing form (80%) induced severe cutaneous reactions and necrosis, which may have enhanced the irritant properties and systemic availability of the product leading to an LD50 of 134 mg/kg body weight. Conversely, the 31% solution induced at most mild skin irritation thus limiting the systemic passage of the product to the blood and leading to an LD50 higher than 2000 mg/kg body weight. Dermal absorption of a 30% liquid solution ranges approximately 5 - 10%.

**Inhalation:** Inhalation may cause coughing, irritation (possibly severe), redness of upper and lower airways, shortness of breath, chemical burns, and possibly pulmonary edema. Pulmonary edema may develop several hours after a severe acute exposure.

**Ingestion:** Harmful if swallowed. Ingestion may cause irritation, nausea, and vomiting. Causes significant metabolic issues through oxidation. May induce methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

---

**CHRONIC TOXICITY:**

Sodium chlorite has produced hemolytic anemia in several animal species at concentrations of 100 mg/L or higher. In a sub-chronic study using rats, hematological alterations included decreased erythrocyte counts, hemoglobin levels, and hematocrit. Methemoglobin levels decreased in females but increased in males. There is no evidence of kidney effects in humans; however, in animal studies with sodium chlorite, there is limited evidence of kidney effects. Repeated and prolonged skin contact may result in dermatitis.

**SIGNS AND SYMPTOMS OF EXPOSURE:**

Signs and symptoms of exposure vary, and are dependent on the route of exposure, degree of exposure, and duration of exposure.

**Inhalation (Breathing):** Breathing (Inhalation): Inhalation of airborne material may cause irritation, redness of upper and lower airways, coughing, laryngeal spasm and edema, shortness of breath, bronchi-constriction, and possible pulmonary edema. Severe and permanent scarring may occur. The pulmonary edema may develop several hours after a severe acute exposure.

**Skin:** Skin Corrosion. Skin exposure to gas or liquid may cause redness, irritation, burning sensation, swelling, blister formation, first, second-, or third-degree burns.

**Eye:** Serious Eye Damage. Exposure to eyes may cause irritation and burns to the eyelids, conjunctivitis, corneal edema, and corneal burn. Significant and prolonged contact may cause damage to internal eye structures.

**Ingestion (Swallowing):** Ingestion: Exposure by ingestion may cause irritation, nausea, and vomiting. Oxidation may cause significant metabolic issues such as: methemoglobinemia, hemolysis, and intravascular coagulation and renal failure.

**Interaction with Other Chemicals Which Enhance Toxicity:** Mixing with ammonia, acids, detergents, or organic matter will release chlorinated compounds, which are irritating to eyes, lungs, and mucus membranes.

**GHS HEALTH HAZARDS:**

**GHS: CONTACT HAZARD - SKIN:** Category 1B - Causes severe skin burns and eye damage

**GHS: CONTACT HAZARD - EYE:** Category 1 - Causes serious eye damage

**GHS: ACUTE TOXICITY - ORAL:** Category 4 - Harmful if swallowed

**GHS: ACUTE TOXICITY - DERMAL:** Category 5 - May be harmful in contact with skin

**GHS: TARGET ORGAN TOXICITY (REPEATED EXPOSURE):**

Category 2 - May cause damage to cardiovascular system, blood, spleen, digestive system, and stomach through prolonged or repeated exposure via oral route

**TOXICITY DATA:**

**PRODUCT TOXICITY DATA:**

<b>LD50 Oral:</b> 389 - 1800 mg/kg (Rat)	<b>LD50 Dermal:</b> > 2 gm/kg skin-rabbit	<b>LC50 Inhalation:</b> 0.58 mg/L (4 hr-Rat)
---------------------------------------------	----------------------------------------------	-------------------------------------------------

**COMPONENT TOXICITY DATA:** The component toxicity data is populated by the LOLI database and may differ from the product toxicity data given

Component	Oral LD50	Dermal LD50	Inhalation LC50
Sodium Chlorite 7758-19-2	165 mg/kg (Rat)	107.2 mg/kg (Rabbit)	230 mg/m <sup>3</sup> (4-h Rat)
Sodium Chloride	3 g/kg (Rat)	>10000 mg/kg (Rabbit)	>42 mg/L (1-h Rat)

# BIO-TEC 25

Rev. Date: 18-Apr-2024  
Rev. Num. 08

---

Component	Oral LD50	Dermal LD50	Inhalation LC50
7647-14-5			
Sodium Chlorate 7775-09-9	4950 mg/kg (Rat) 6250 mg/kg (Rat)	>2000 mg/kg (Rabbit)	>5.59 mg/L (4.5-h Rat)

**EYE IRRITATION/CORROSION:** The product is classified as causing serious eye damage (Category 1, H318), according to criteria of the GHS.

**SKIN IRRITATION/CORROSION:** This product is classified as causing severe skin burns (Category 1B, H314), according to GHS classification criteria.

**SKIN ABSORBENT/DERMAL ROUTE:** Yes.

May be harmful in contact with skin. Dermal absorption of a 30% liquid solution ranges approximately 5 - 10%.

**RESPIRATORY OR SKIN SENSITIZATION:** Not classified as a skin or respiratory sensitizer per GHS criteria.

**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. This product is not classified as a carcinogen by NTP, IARC or OSHA. Not classified as a carcinogen per GHS criteria.

**SPECIFIC TARGET ORGAN TOXICITY (Single Exposure):** The substance is not classified as a specific target organ toxicant after single exposure per GHS criteria.

**SPECIFIC TARGET ORGAN TOXICITY (Repeated or Prolonged Exposure):** This product is classified as GHS Category 2 - May cause damage to cardiovascular system, blood, spleen, digestive system, and stomach through prolonged or repeated exposure via oral route.

**INHALATION HAZARD:** Inhalation is not likely from vapors due to low vapor pressure; however, if mists are inhaled may cause respiratory tract irritation. Its action in the respiratory tract is due to its strong oxidizing capability. Symptoms of pulmonary congestion and edema may develop after a latency period of several hours following severe acute exposure to mists.

**GERM CELL/IN-VITRO MUTAGENICITY:** Not classified as a mutagen per GHS criteria. Sodium chlorite has tested positive in some studies. The significance of these test results for human health is unclear because the oxidizing effects of the chlorite or salting effects of sodium may significantly affect the ability of the tests to accurately detect mutagens.

**REPRODUCTIVE TOXICITY:** Not classified as a reproductive toxin per GHS criteria. There is limited evidence of male reproductive effects in animal studies.

**DEVELOPMENTAL TOXICITY:** Not classified as a developmental or reproductive toxin per GHS criteria. Observations in animal studies include decreased serum levels of thyroid hormones in offspring.

**ASPIRATION HAZARD:** Not classified as an aspiration hazard per GHS criteria.

**TOXICOKINETICS:** The time taken to absorb 50% of the dose for sodium chlorite was  $3.5 \pm 1.06$  hours. The absorption rate constant was  $0.198 \pm 0.06$ /hour. The time taken to eliminate 50% of the dose from the plasma when detected as  $^{36}\text{Cl}$  was  $35.2 \pm 3.0$  hours. After 72 h, radioactivity from chlorite was found at the highest level in the plasma, followed by stomach, testes, skin, lung, duodenum, kidney, carcass, spleen, ileum, bone marrow and liver. In

# BIO-TEC 25

Rev. Date: 18-Apr-2024  
Rev. Num. 08

blood, chlorite levels were distributed evenly between plasma and packed cells. For sodium chlorite, 87 and 13% of initial dose (36 -Cl) was found in urine and feces, respectively. 36-Cl was not detected in expired air throughout the 72-hour time period. Chloride, chlorite, and chlorate were found in rat urine 72 hours after the administration. The major metabolite was chloride, representing 31.6% of the initial dose of chlorite.

**METABOLISM:** May metabolize to form elevated chloroform levels in the liver and brain but not in blood.

**BIOLOGICAL DISTRIBUTION:** See Toxicokinetics above.

**PATHOGENICITY AND ACUTE INFECTIOUSNESS (ORAL, DERMAL, AND INHALATION):** Not applicable.

**ENDOCRINE DISRUPTOR:** Sodium chlorite is listed on The Endocrine Disruptors Exchange's (TEDX) List of Potential Endocrine Disruptors database of chemicals with the potential to affect the endocrine system. Every chemical on the TEDX List has one or more verified citations published, accessible, primary scientific research demonstrating effects on the endocrine system.

**NEUROTOXICITY:** Not Available.

**IMMUNOTOXICITY:** Not available.

### Health Hazards of Significance Not Mentioned in GHS Classification

- May be harmful in contact with skin
- Potential endocrine disruptor

## SECTION 12. ECOLOGICAL INFORMATION

### ECOTOXICITY (EC, IC, and LC):

**Ecotoxicity - Available LOLI Data for Components:** No data available for product itself

Component:	Freshwater Fish:	Invertebrate Toxicity:	Algae Toxicity:	Other Toxicity:
Sodium Chlorite 7758-19-2 (24.25 - 25.75 %)	*LC50 Brachydanio rerio: 100 - 500 mg/L 96h static *LC50 Lepomis macrochirus: 100 mg/L 96h static *LC50 Oncorhynchus mykiss: 100 mg/L 96h static	*EC50 Daphnia magna: 0.012 - 0.018 mg/L 48h *EC50 Daphnia magna: 0.25 - 0.33 mg/L 48h *EC50 Daphnia magna: 0.026 mg/L 48h	No data available	No data available
Sodium Chlorate 7775-09-9 (< 0.5 %)	*LC50 Pimephales promelas: 13500 mg/L 96h *LC50 Oncorhynchus mykiss: 1750 mg/L 96h *LC50 Cyprinus carpio: 7090 mg/L 96h	No data available	No data available	*LC50 Eisenia foetida (14 Days soil dry weight) >750 mg/kg

### Aquatic Toxicity:



# BIO-TEC 25

Rev. Date: 18-Apr-2024  
Rev. Num. 08

---

LC50 Rainbow trout = 290 mg/l as 80% NaClO<sub>2</sub> (96 hour)  
LC50 Bluegill = 265-310 mg/l as 80% NaClO<sub>2</sub> (96 hour)  
LC50 Sheepshead minnow = 62-90 ppm (96 hour)

**Invertebrate Toxicity:**

LC50 Daphnia Magna = 0.29 mg/L as 80% NaClO<sub>2</sub> (48 hour)

**Other Toxicity:**

LD50 Mallard duck = 0.49-1.00g/kg as 80% NaClO<sub>2</sub> (gavage)

LD50 Bob White quail = 0.39 - 0.66 g/kg as 80% NaClO<sub>2</sub> (gavage)

Sodium chlorite in the diet of birds was not acutely toxic. Eight-day dietary LC50's in the Mallard duck and Bob White quail were > 5,000 ppm

## FATE AND TRANSPORT:

**PERSISTENCE:** This material will eventually degrade to sodium chloride.

**BIODEGRADATION:** This material is inorganic and not subject to biodegradation; however, chlorite ions are reduced by some bacteria under anaerobic conditions. Sodium chlorite is a strong oxidizing agent and under proper reducing conditions is readily reduced to chloride, and to a lesser extent, chlorate. In strong acidic conditions, chlorite can change into chlorine dioxide.

**BIOCONCENTRATION:** This material will not bioaccumulate.

**BIOACCUMULATIVE POTENTIAL:** Bioaccumulation in aquatic species test does not need to be conducted as the substance has a low potential for bioaccumulation (a log Kow < 3) and is an inorganic substance.

**MOBILITY IN SOIL:** Not applicable.

**PBT and vPvB assessment:** Not applicable.

---

## SECTION 13. DISPOSAL CONSIDERATIONS

**Waste from material:**

Dispose 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 incompatible materials could cause a reaction and fire. Contact Technical Service to obtain neutralization instructions. Sodium chlorite is toxic to fish and aquatic organisms. Keep out of water supplies and sewers. 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 Management:**

Containers are non-refillable. Do not reuse or refill containers. Offer for recycling if available. Offer for reconditioning if appropriate. Triple rinse or pressure rinse container promptly after emptying. Triple rinse containers 5-gallons or smaller as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full of water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow

# BIO-TEC 25

Rev. Date: 18-Apr-2024

Rev. Num. 08

---

begins to drip. Repeat this procedure two more times. Triple rinse containers larger than 5 gallons as follows: Empty remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full of water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its 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 procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse about 40 PSI for at least 30 seconds. Drain for 10 seconds, after the flow begins to drip. Container rinsate must be disposed of in compliance with applicable regulations.

### **Contaminated Material:**

Dispose according to appropriate regulations.

---

## SECTION 14. TRANSPORT INFORMATION

---

### LAND TRANSPORT

#### **U.S. DOT 49 CFR 172.101:**

<b>UN NUMBER:</b>	UN1908
<b>PROPER SHIPPING NAME:</b>	Chlorite solution
<b>HAZARD CLASS/ DIVISION:</b>	8
<b>PACKING GROUP:</b>	II
<b>LABELING REQUIREMENTS:</b>	8
<b>Special provisions for transport:</b>	A3; A7; B2; IB2; N34; T7; TP2; TP24.
<b>Packaging Exceptions</b>	154.
<b>Non-bulk Packaging:</b>	202.
<b>Bulk Packaging:</b>	242.

#### **CANADIAN TRANSPORTATION OF DANGEROUS GOODS:**

<b>UN NUMBER:</b>	UN1908
<b>SHIPPING NAME:</b>	Chlorite solution
<b>CLASS OR DIVISION:</b>	8
<b>PACKING/RISK GROUP:</b>	II
<b>LABELING REQUIREMENTS:</b>	8

### MARITIME TRANSPORT (IMO / IMDG)

<b>UN NUMBER:</b>	UN1908
<b>PROPER SHIPPING NAME:</b>	Chlorite Solution
<b>HAZARD CLASS / DIVISION:</b>	8
<b>Packing Group:</b>	II
<b>LABELING REQUIREMENTS:</b>	8
<b>MARINE POLLUTANT:</b>	Marine Pollutant

---

# BIO-TEC 25

Rev. Date: 18-Apr-2024  
Rev. Num. 08

---

## AIR TRANSPORT (ICAO / IATA)

**Special Instructions CAO:** IATA Certificate for shipping personnel is required

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code.

---

## SECTION 15. REGULATORY INFORMATION

---

### U.S. REGULATIONS

**OSHA REGULATORY STATUS:**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

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

Not regulated.

**SARA EHS Chemical (40 CFR 355.30)**

Not regulated.

**SARA HAZARD CATEGORIES ALIGNED WITH GHS (2018):**

- Health Hazard - Acute Toxin (any route of exposure)
- Health Hazard - Skin Corrosion or Irritation
- Health Hazard - Serious eye damage or eye irritation
- Health Hazard - Specific Target Organ Toxicity (STOT) Repeat Exposure (RE)
- Health Hazard - HNOC
- Physical Hazard - Oxidizer (liquid, solid or gas)
- Physical Hazard - Corrosive to Metal

**EPCRA SECTION 313 (40 CFR 372.65):**

Not regulated.

**DEPARTMENT OF HOMELAND SECURITY (DHS)- Chemical Facility Anti-Terrorism Standards (6 CFR 27):**

Not likely to be regulated based on composition level of component below in formulation

Component	DHS - Security Issues	DHS-Sabotage Screening Threshold Qty.	DHS-Sabotage Min. Conc.	DHS-Theft Screening Threshold Qty.	DHS-Theft Min. Conc.	DHS-Release Screening Threshold Qty.	DHS-Release Min. Conc.	CWC Toxic Chemicals:
Sodium Chlorate 7775-09-9 (< 0.5)	Theft - Explosives/Im provided Explosive Device Precursors	Not Listed	Not Listed	400 lb STQ	a commercial grade	Not Listed	Not Listed	Not Listed

**OSHA PROCESS SAFETY (PSM) (29 CFR 1910.119):**

Not regulated.

**FIFRA REGULATIONS:** Registered pesticide under 40 CFR 152.10, Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). EPA Reg. No. 5382-43 (Technical Sodium Chlorite Solution 31.25).

---

# BIO-TEC 25

Rev. Date: 18-Apr-2024  
Rev. Num. 08

**FIFRA LABELING REQUIREMENTS:** - This chemical is a pesticide product registered by the United States Environmental Protection Agency (EPA) and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of 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
- Corrosive
- Causes irreversible eye damage and skin burns
- Harmful if swallowed
- Irritating to nose and throat
- Do not get in eyes, on skin, or on clothing
- This product is toxic to fish and aquatic organisms
- This product becomes a fire or explosive hazard if allowed to dry. Dry sodium chlorite is a strong oxidizing agent
- 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

**FDA:** This material has Generally Recognized As Safe (GRAS) status under specific U.S. Food and Drug Administration (FDA) regulations. Additional information is available from the Code of Federal Regulations, which is accessible on the FDA's website. Only food grade product meets the FDA's Food Safety Modernization Act (FSMA) requirements and is guaranteed to be produced under all current Good Manufacturing Practices (cGMP) requirements as defined by the FDA. Food grade product is produced in a facility that is accredited as a Safe Quality Food (SQF) Level 2 Facility, certified under the Global Food Safety Initiative (GFSI), and meets the Food Chemical Codex (FCC) requirements

**EPA'S CLEAN WATER AND CLEAN AIR ACTS:**  
Component(s) not listed on impacted regulatory lists.

## NATIONAL INVENTORY STATUS

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

Component	TSCA Inventory	TSCA ACTIVE LIST	TSCA 12(b)	TSCA/Section 4	TSCA/Section 5	TSCA/Section 6	TSCA/Section 8
Sodium Chlorite 7758-19-2 (24.25 - 25.75 %)	Listed	ACTIVE	Not Listed	Not listed	Not Listed	Not Listed	Not listed
Sodium Chloride 7647-14-5 (1 - 3 %)	Listed	ACTIVE	Not Listed	Not listed	Not Listed	Not Listed	Not listed
Sodium Chlorate 7775-09-9 (< 0.5 %)	Listed	ACTIVE	Not Listed	Not listed	Not Listed	Not Listed	Not listed

**Canadian Chemical Inventory:** All components of this product are listed on either the DSL or the NDSL.

Component	DSL	NDSL
Sodium Chlorite 7758-19-2 (24.25 - 25.75)	Listed	Not Listed
Sodium Chloride 7647-14-5 (1 - 3)	Listed	Not Listed
Sodium Chlorate	Listed	Not Listed

# BIO-TEC 25

Rev. Date: 18-Apr-2024

Rev. Num. 08

---

7775-09-9 (< 0.5)		
-------------------	--	--

## STATE REGULATIONS

### California Proposition 65:

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 OxyChem Customer Relations.

Component	U.S. - California - Proposition 65 - Carcinogens List	CA. Prop. 65 Teratogen	California Proposition 65 CRT List - Male reproductive toxin:	California Proposition 65 CRT List - Female reproductive toxin:	Massachusetts Right to Know Hazardous Substance List	Rhode Island Right to Know Hazardous Substance List
Sodium Chlorite 7758-19-2 (24.25 - 25.75 %)	Not listed	Not listed	Not Listed	Not Listed	Listed	Not Listed
Sodium Chloride 7647-14-5 (1 - 3 %)	Not listed	Not listed	Not Listed	Not Listed	Not Listed	Not Listed
Sodium Chlorate 7775-09-9 (< 0.5 %)	Not listed	Not listed	Not Listed	Not Listed	Listed	Listed

Component	New Jersey Right to Know Hazardous Substance List	New Jersey Special Health Hazards Substance List	New Jersey - Environmental Hazardous Substance List	Pennsylvania Right to Know Hazardous Substance List	Pennsylvania Right to Know Special Hazardous Substances	Pennsylvania Right to Know Environmental Hazard List
Sodium Chlorite	1689	corrosive; reactive - second degree	Not Listed	Listed	Not Listed	Not Listed
Sodium Chloride	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Sodium Chlorate	1688	reactive - second degree	Not Listed	Listed	Not Listed	Not Listed

## CANADIAN REGULATIONS

This product has been classified in accordance with the hazard criteria of the Workplace Hazardous Materials Information System (WHMIS 2015) which includes the amended Hazardous Products Act (HPA) and the Hazardous Product Regulations (HPR).

**Canadian Federal Regulation Status:** All components are listed or exempt

Component	Canada - CEPA - Schedule I - List of Toxic Substances	Canada - NPRI	Canada - CEPA - Greenhouse Gases (GHG) Subject to Mandatory Reporting	Canadian Chemical Inventory:	NDSL
Sodium Chlorite 7758-19-2 (24.25 - 25.75)	Schedule 1, Part 3 Substance	Not Listed	Not Listed	Listed	Not Listed
Sodium Chloride 7647-14-5 (1 - 3)	Not listed	Not Listed	Not Listed	Listed	Not Listed
Sodium Chlorate 7775-09-9 (< 0.5)	Not listed	Not Listed	Not Listed	Listed	Not Listed

---

## SECTION 16. OTHER INFORMATION

Prepared by Anderson Chemical Company

---

**Rev. Date:** 18-Apr-2024

**Reason for Revision:**

- Updated Company's logo in SDS header
- Emphasis placed on Physical Hazards of Significance Not Mentioned in GHS Classification: SEE SECTION 2
- Revised precautionary phrases to be in compliance with GHS Revision 9
- Updated First Aid Measures: SEE SECTION 4
- Updated Transportation Information: SEE SECTION 14
- Updated Canadian Regulatory information: SEE SECTION 15
- Revised Important Statement: SEE SECTION 16
- SDS format adopts revisions to the Hazardous Products Regulations (HPR) to include revisions to "Section 9: Physical and chemical properties" and ensures classification with at a minimum the seventh revised edition of GHS and certain elements from the eighth revised edition (Revision 8)

**IMPORTANT:**

Important: The information presented herein, while not guaranteed, was prepared by technical personnel and is true and accurate to the best of our current knowledge. NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OR GUARANTY OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, SAFETY, SUITABILITY, STABILITY OR OTHERWISE. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, storage, disposal, and other factors that may involve other or additional legal, environmental, safety or performance considerations, and Occidental Chemical Corporation assumes no liability whatsoever for the use of or reliance upon this information. Appropriate handling and use of the product remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as, a recommendation to infringe any existing patents or to violate any Federal, State, local or foreign laws.

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, safety data sheets, training and access to written records. We request that you, and it is your legal duty to, make all information in this Safety Data Sheet available to your employees.

---

**End of Safety Data Sheet**