

MATERIAL SAFETY DATA SHEET

Issue Date: 9/01/2005

Section 1 Product and Company Information

Product Name	OdorXit ClO2 (NosGUARD) SG5, SG10, SG25, SG50, SG100, SG200
Product Use	Deodorizing delivery system (pouch) for the generation of chlorine dioxide for use as control of odor-causing bacteria, mold and mildew and chemical odors in confined spaces where moisture are present.
Company	Listening System Inc Distributor for Avantec Technologies Inc.
Address	Po Box 805 Hamilton, OH 45011
Technical Phone	513-895-1000
Emergency Phone	614 404-5175
Fax	513-868-8886

Section 2 Composition / Information on Ingredients

Hazardous Component

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% (by weight)</u>	<u>Exposure Standards</u>
Sodium Chlorite	7758-19-2	15.5 – 16.5	None Established
Sodium Chlorate	7777-09-9	0.8 max	None Established
Sodium Hydroxide	1310-73-2	0.6 max.	OSHA: 2 mg/m

Section 3 Hazards Identification

Emergency Overview White granule/powder, slight chlorine odor, strong oxidizer. May cause irritation or burns to skin and eyes.

Potential Health Effects

Eye: Direct contact with this product may cause severe irritation and possibly burns with symptoms of redness, tearing, and eye damage due to burns.

Skin: Direct contact with this product may cause severe irritation and/or burns with symptoms of itching, redness, swelling and possible skin damage.

Ingestion: Swallowing this product may be extremely harmful with symptoms of nausea, vomiting, lethargy, diarrhea, bleeding or ulceration. May cause anemia due to the oxidizing effects of sodium chlorite.

Inhalation: Inhaling this product may cause irritation of the mucous membranes and respiratory tract with symptoms of sneezing, coughing and bloody nose. Sever overexposures may cause lung damage

Section 4 First Aid Measures

Eye: Immediately flush eyes with water for at least 15 minutes, lifting eyelids to thoroughly flush. If redness or irritation persists, get prompt medical attention.

Skin: Remove contaminated clothing and flush affected skin area with copious

amounts of water for at least 15 minutes. Seek medical attention if burning or irritation of the skin persists. Launder clothing before reuse.

Ingestion: Drink large quantities of water and seek medical attention immediately. DO NOT induce vomiting. DO NOT give anything by mouth if the person is unconscious or having seizures.

Inhalation: Remove to fresh air. If irritation or discomfort persists, administer oxygen and seek medical attention immediately.

Notes to Physician Chlorine dioxide vapors are emitted when this product contacts water, 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.

Section 5 Fire Fighting Measures

Flash Point Auto ignition	Not Applicable
Temperature	Not Applicable
Flammable Limits in Air (percent by volume)	Not Applicable
Extinguishing Media	Not Applicable- Choose extinguishing media suitable for surrounding materials
Fire Fighting Techniques and Comments	Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Use flooding quantities of water as fog or spray. Use water spray to keep fire-exposed containers cool. Extinguish fire using agent suitable for surrounding fire. Wear self-contained breathing apparatus and protective clothing when fighting fires involving chemicals

Section 6 Accidental Release Measures

Procedure(s) of Personal Precautions(s)	Wear respirator, chemical safety goggles, rubber boots, and rubber gloves.
Methods for Cleaning Up	Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site with large amounts of water after material pickup is complete.

Section 7 Handling and Storage

Handling: Wear all recommended personal protective clothing when handling. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage: Store in a cool, dry place and ensure that there is adequate ventilation. Do not expose to direct light. Do not expose to moisture during storage. This product is hygroscopic and will readily absorb moisture. Should only be opened from the packaging pouch prior to use.

Section 8 Exposure Control / Personal Protection

Engineering Control: Local exhaust ventilation is recommended if vapors, mists or aerosols are generated. Otherwise, use general exhaust ventilation.

Eye Protection:	Chemical safety glasses or goggles
Skin Protection:	Chemical-resistant gloves, clothing, and boots.
Respiratory:	NIOSH/MSHA-approved respirator is recommended in absence of proper environmental control.
	General: Provide ventilation to control worker exposure and prevent health risk. Provide an eyewash fountain and safety shower in close proximity to points of potential exposure.

Section 9 Physical and Chemical Properties

Appearance and Odor:	White granule/powder Odor: Slight chlorine odor
Melting Point:	350 °F (177 °C) Decomposition Temperature: 347 °F (175 °C)
Solubility in water:	Complete
Bulk Density	No data
pH	@ 25°C: No data
Vapor Pressure:	No data
Specific Gravity:	No data
Volatiles (% by volume):	No data

Section 10 Stability and Reactivity

Chemical Stability:	Stable
Conditions to Avoid:	Temperatures above 347 °F (175 °C), do not store dry product where exposed to moist conditions and contamination with combustible materials
Incompatibility:	Acids, reducing agents, combustible materials, oxidizers (eg. hypochlorites), sulfur-containing rubber, dirt, soap, solvents, paints.
Decomposition Products:	Toxic chlorine dioxide gas will be generated on contact with acids or chlorine
Hazardous Polymerization:	Will not occur.

Section 11 Toxicology Information

Routes of Exposure

Inhalation:	Inhalation may cause irritation of the mucous membranes and respiratory tract. Symptoms may include coughing, bloody nose, and sneezing. Severe overexposures may cause lung damage.
Skin:	Direct contact may cause severe irritation and/or burns with symptoms of redness, itching, swelling and possible destruction of tissue
Eye:	Mist or direct contact may cause severe irritation and possibly burns. Symptoms may include tearing, redness and in severe cases, eye damage due to burns

Ingestion:	Gastroenteritis with any or all of the following symptoms: nausea, lethargy, diarrhea, bleeding or ulceration. Acute ingestion of large quantities may also cause anemia due to the oxidizing effects of the chemical.
Carcinogenicity	Sodium chlorite is not listed in OSHA, EPA, NTP, IARC or any other authority as a carcinogen.
Reproductive Toxicity	No effects were observed at 10 ppm or higher concentration of sodium chlorite in the drinking water in animal testing

Section 12 Ecological Information

Ecotoxicological Information Sodium chlorite is slightly toxic to fish and other aquatic organisms. For bluegill (*Lepomis macrochirus*), aquatic toxicity studies have shown a TL50 of 208 mg/l and LC50 values of 265-310 mg/l. rainbow trout (*Salmo gairdneri*) have been tested and shown acute toxicity values of 50.6 mg/l (TL50) and 290 mg/l (LC50). Of the aquatic species tested, *Daphnia* have been the most sensitive species tested with an LC50 of 0.29 mg/l. Sodium chlorite is acutely toxic to birds when administered by gavage. The acute oral LD50 in mallard ducks is 0.49-1.00 g/kg. In bobwhite quail the LD50 is 0.66 g/kg. Sodium chlorite in the diet of birds was not acutely toxic. Eight day dietary LC50's in mallard ducks and bobwhite quail were both greater than 10,000 ppm in the diet.

Environmental Fate Information

Soil: Sodium chlorite could generate chlorine dioxide when in contact with acidic soil. However both sodium chlorite and chlorine dioxide will degrade to sodium chloride in the presence of reducing agents in soil

Water: Sodium chlorite in water will eventually degrade to sodium chlorite in the presence of reducing agents in natural water.

Section 13 Disposal Considerations

If this products as supplied becomes a waste, it meets the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA), 40 CFR Part 261. All disposals of this material must be done in accordance with local, State and Federal laws and regulations.

Section 14 Transport Information

This material is regulated as a DOT hazardous material.

DOT Shipping Description (49 CFR 172.101)

Sodium Chlorite, 5.1, UN 1496, II

The applicable packaging section is 49 CFR 173.4 (small quantity - maximum amount of sodium chlorite per individual receptacle is 30 grams). Oxidizer placard not required. Outside package must be marked as follows: "This package conforms to 49 CFR 173.4."

Section 15 Regulatory Information

TOXIC SUBSTANCES CONTROL ACT

The components of this product are listed on the Toxic Substance Control Act (TSCA) inventory

**SUPERFUND AMMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III
HAZARD CATEGORIES (40 CFR 370.2)**

HEALTH: Immediate (Acute), Delayed (Chronic) PHYSICAL: Fire

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW (40 CFR 355, APP.A)

EXTREMELY HAZARDOUS SUBSTANCE (EHS) - PLANNING QUANTITY

None Established

SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45

None Required

FOR ADDITIONAL INFORMATION CALL: 614-340-1862 (During business hours, Eastern Standard Time)

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