Material Safety Data Sheet

1.) *PRODUCT CHEMICAL AND COMPANY IDENTIFICATION*

Last Revision:	10/05/2008
Product Name:	ODOR BLAST
Synonyms:	Solid Release Chlorine Dioxide
Chemical Name:	Chlorine Dioxide (ClO_2); Dry Impregnate Precursor
Product Application:	Gas Release Broad Spectrum Application
Company Name:	DIRECTLINE IND.
	PO Box 15133 St. Louis, MO. 63110
	Phone 866-773-6136 Emergency 800-255-3924 Chem-Tel

2). *PRODUCT COMPONENT/ COMPOSITION INFORMATION*

CHEMICAL NAME	PROPRIETARY	CAS NUMBER	WT. %	HAZARDOUS
COMPONENT A Sodium Chlorite (impregnate)	YES	7758-19-2*	≤ 10.00%*	NO
COMPONENT B Zeolite	NO	12113-10-3*	≤ 99.00%*	NO

According to 29 CFR 1910:1200 the identity and specific formulation of components has been withheld as CONFIDENTIAL and TRADE SECRET. Components A & B shall be consistent formulation ingredients. Compound derivations thereof, are included in the formulation independently or in combination as integrated activation control substances.

*CAS numbers and derivative percentage weights are shown for the pre-processed materials. "Non-Hazardous" designation is pertinent to the manufactured impregnate since the components are not separable when shipped. The components as employed in their impregnated state are non-hazardous. Individual MSDS' for the preprocessed material ingredients are available on request.

3). *HAZARDS IDENTIFICATION*

EMERGENCY OVERVIEW

Appearance:	Granular white or off-white powder, solid crystalline structure
Properties:	Strong oxidizer, 98% soluble in water
Odor:	Slight chlorine odor

POTENTIAL HEALTH EFFECTS

INGESTION: **DANGER,** harmful if swallowed. May cause all of the following symptoms: nausea, vomiting, diarrhea or ulceration. Ingestion of large amounts may cause anemia and/or cardiovascular distress.

INHALATION: Respiratory and/or gastro-intestinal irritant, inhalation may cause irritation of the mucous membranes and respiratory system characterized by coughing, burning, and sneezing. Extreme overexposure may result in lung damage.

EYE: Irritant, direct contact may cause severe irritation characterized by itching, redness and tearing. Extreme overexposure may result in eye damage due to burns.

SKIN: Irritant, direct contact may cause severe irritation characterized by itching, redness and/or edema. Extreme overexposure may result in tissue damage due to burns.

Other Chemical Interactions Which Enhance Toxicity:

No known or reported interactions.

Existing Medical Conditions Aggravated By Exposure:

Eye irritation may result from prolonged exposure to low levels of dust. Prolonged dust inhalation may result in varying degrees of lung damage and/or mucous membrane irritation. Prolonged exposure of the skin may result in localized dermatitis, inflammation, and/or irritation. Prolonged exposure may aggravate allergies, pulmonary disorders and blood cell diseases.

OTHER HEALTH EFFECTS

Premature or accidental product activation, mishandling and/or improper storage of the package or the contact of package components with acids and/or reducing agents may result in the release of Chlorine Dioxide gas. Direct contact with or inhalation of Chlorine Dioxide gas may result in skin and/or eye irritation and/or inflammation of the respiratory system and/or mucous membranes. Extended inhalation of Chlorine Dioxide gas in high concentrations may lead to coughing, bronchitis, pulmonary edema and oxidative burns.

4). *FIRST AID*

INGESTION: **DO NOT** induce vomiting; if conscious have subject drink multiple glasses of water, Seek medical attention. Loosen any tight clothing. If the subject stops breathing begin mouth-to-mouth resuscitation. Seek medical attention if symptoms persist.

INHALATION: Evacuate subject to a well-ventilated safe area as soon as practical and loosen any tight clothing. The subject should minimize activity and rest in a well-ventilated area. If breathing is labored, administer oxygen. If the subject stops breathing, begin mouth-to-mouth resuscitation. Immediately seek medical attention.

EYES: If applicable, remove contact lenses. With open eyelids IMMEDIATELY, irrigate eyes with cool or cold flowing water for at least 15 minutes. Do not use eye ointment of any type, flush with water ONLY. Seek medical attention if symptoms persist.

SKIN: In the case of direct contact, flush residual material and area of skin affected with generous amounts of cool or cold water for at least 15 minutes. Remove and launder any contaminated clothing prior to use. Seek medical attention if symptoms persist.

NOTE TO PHYSICIAN: Inhalation of Chlorine Dioxide potentially will damage the lungs, ingestion effects.

5). *FIRE FIGHTING MEASURES*

FLAMMABLE PROPERTIES

FLASH POINT:	Not applicable.
AUTO IGNITION TEMPERATURE:	Not applicable.
FLAMMABLE LIMITS:	Not applicable.
EXTINGUISHING MEDIA:	Not applicable; choose extinguishing media suitable for surround-ing materials.
EXPLOSION HAZARDS:	Not applicable.
FIRE FIGHTING INSTRUCTIONS:	Not applicable. Extinguish fire using agent suitable for surround-ing combustible matter.
UNUSUAL EXPLOSION HAZARDS:	Not applicable.

LARGE SPILLS: Sweep material up. Place contaminated material in a disposal container and thoroughly rinse spill area. Avoid material runoff into storm drains, ditches, or any pathways that lead to waterways. Never discharge into natural bodies of water.

SMALL SPILLS: Place all contaminated material in a disposal container and thoroughly rinse spill area with water.

PERSONAL PROTECTION: Dust and small particulate hazard. Wear vapor respirator, full-face splashguard and/or goggles, and impervious gloves, as required. Eye wash facilities and emergency shower should be in close proximity. Remove and launder all contaminated clothing prior to reuse.

REACTION PRODUCT: Chlorine Dioxide Gas

7). *HANDLING AND STORAGE*

HANDLING: Except when in use, do not open individual packages to expose media components; keep bulk media containers tightly closed when not in use. Avoid media contact with skin, eyes or clothing. Do not generate media dust. Do not breathe media dust or vapors. Avoid personal exposure and contact with media components.

STORAGE: Store materials in a cool, dry, well-ventilated location. Storage temperature should not exceed 90 degrees F. Keep bulk media containers tightly closed when not in use. Do not store in open, mislabeled or unlabeled containers. Do not deface or remove labels. Do not expose stored materials to heat, moisture or direct sun light.

SHELF LIFE LIMITATIONS: 12 months

INCOMPATIBLE MATERIALS FOR STORAGE: Acids, reducing agents, oxidizers, combustible materials, solvents, paints and sulfur.

8). *EXPOSURE CONTROLS AND PERSONAL PROTECTION*

ENGINEERING MEASURES: If use operations generate dust, fumes, or mists use local exhaust ventilation, process enclosures, or other control means to minimize airborne exposure. Otherwise, use general exhaust ventilation or other air circulation means.

PERSONAL PROTECTIVE EQUIPMENT:

EYE AND FACE PROTECTION: Use a chemical approved full-face splashguard and goggles or safety glasses. Strong recommendation: maintain an eyewash station, shower, and washing facilities in a location near the material work area.

SKIN PROTECTION: Impervious gloves are recommended, but not required. Strong recommendation: maintain an eyewash station, shower, and washing facilities in a location near the material work area.

RESPIRATORY PROTECTION: Maintain a well-ventilated work area or local forced exhaust system. If ventilation is not acceptable or if exposure to vapor, dust or mist is possible wear a NIOSH/MSHA approved acid vapor respirator and dust/mist pre-filter.

EXPOSURE GUIDELINES: There are no established exposure limits based on the systemic inhalation of Sodium Chlorite dust, the recommended 8 to 12 hour time weighted average (TWA) for an occupational exposure limit (OEL) for Sodium Chlorite dust is 1 mg/m^3. In the event of accidental or premature release of Chlorine Dioxide gas the OSHA PEL and ACGIH TLV for Chlorine Dioxide gas is 0.1 PPM and 0.3-PPM STEL.

9). *CHEMICAL AND PHYSICAL PROPERTIES*

APPEARANCE:	FORM:	Solid irregular shaped granules
	COLOR:	Off white, light tan to burnt orange
	ODOR:	Mild bleach/pool odor
CHEMICAL FORMULA:		Proprietary
MOLECULAR WEIGHT:		Proprietary
MELTING POINT:		Not applicable
BOILING POINT:		Not applicable
pH:		Range: 6 to 8 at 25 C^o
BULK DENSITY:		Range: 80 to 110 lbs/ft^3 packed
SOLUBILITY IN WATER:		Range: 1% to 10% at 25 C^o
DECOMPOSITION TEMPERATURE:		Range: 250 TO 300 C^o
VOLATILES, % BY VOLUME:	Range: 1% to 25%	

10). *REACTIVITY AND STABILITY*

STABILITY: Stable material, CONDITIONS TO AVOID: avoid ignition sources and extended exposure to heat, moisture and ultraviolet light.

COMPATIBILITY: SPECIFIC MATERIALS TO AVOID, reactive with reducing agents, acids, oxidizers, solvents, paints, combustible materials and sulfur.

REACTIVITY: Chlorine Dioxide gas may be generated upon contact with reducing agents, acids and/or oxidizers or mishandling of packages or improper storage of packages.

POLYMERIZATION: Will not occur

11). *TOXICOLOGICAL INFORMATION*

ACUTE TOXICITY

INHALATION: Inhalation may cause irritation of the mucous membranes and respiratory system characterized by coughing, burning, and sneezing. Extreme overexposure may result in lung damage.

CHRONIC TOXICITY

INHALATION: No data available on any chronic effects.

INGESTION: Chronic Sodium Chlorite (Component A) ingestion in drinking water concentrations of 100 PPM and greater has resulted in minor suppression of thyroid function and mild anemia in laboratory animals. After cessation of treatments, all symptoms were reversible. Clinical studies of human populations using drinking water disinfected with Sodium Chlorite yielded no adverse effects.

CARCINOGENICITY: According to NTP, OSHA, EPA and IARC Sodium Chlorite (Component A precursor), including all other product components and the product as a whole, does NOT contain known carcinogens, (*i.e.* cancer causing agents).

MUTAGENICITY:
Orally administered Sodium Chlorite in animal studies has not been found to be mutagenic. Human health effects of Sodium Chlorite are unclear. Human health data for the product as a whole is not available.

REPRODUCTIVE SYSTEM TOXICITY:
In animal studies, Sodium Chlorite has not been found to be teratogenic in drinking water concentrations up to 100 PPM. No additional information related to teratogenic effects for the product, as a whole is available. Male rats chronically exposed to Sodium Chlorite concentrations of 100 PPM or greater in drinking water have exhibited slight suppression of sperm mobility. At any dose level, similar animal studies have not produced any meaningful adverse reproductive treatment effects. No information related to the reproductive system for the product, as a whole is available.

12). *ECOLOGICAL INFORMATION*

AQUATIC TOXICITY: Sodium Chlorite is toxic to fish and aquatic organisms. No further information related to aquatic toxicity for the product as a whole is available.

ECO TOXICITY: Sodium Chlorite in the diet of Mallard Ducks and Bobwhite Quail was not acutely toxic during dietary eight day LC_{50} at more than 10,000 PPM. For Rainbow Trout Acute four day LC_{50}: 290 mg/l, acute TL_{50}: 50.6 mg/l.

ENVIRONMENTAL FATE: Sodium Chlorite in water and soil will degrade to Sodium Chloride salt (NaCl).

13). *DISPOSAL CONSIDERATIONS*

All disposal of Sodium Chlorite must comply with local, state and Federal regulations, EPA waste designation: D001. Product components, as shipped, are not listed as RCRA hazardous waste and are considered inert. State and local disposal regulations may differ from federal disposal regulations. Characterization of waste and compliance with disposal regulations are the responsibility of the waste generator.

14). *TRANSPORT INFORMATION*

ODOR BALST is non-hazardous for shipping purposes.

15). *REGULATORY INFORMATION*

U S FEDERAL REGULATIONS

REPORTABLE QUANTITY: None

TOXIC SUBSTANCES CONTROL ACT: Sodium Chlorite is listed on TSCA Inventory

SARA TITLE III: Sodium Chlorite is not subject to reporting requirements of Section 313 of Title III of the 1986 Superfund Amendments and Reauthorization Act (SARA) and 40 CFR Part 372.

SARA HAZARD CATEGORIES (40 CFR 370.2): (Sodium Chlorite) Health: Immediate (Acute), Delayed (Chronic) Physical: Fire

16). *OTHER INFORMATION*

ODOR BLAST product data sheets for further information on product applications, use instructions, health, safety, transport, storage, environmental, and disposal. For any other information, contact DirectLine Ind., 866-773-6136 8 AM to 5 PM, (EST), Monday - Friday.

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