Safety Data Sheet CD-Tab

ClorDiSys Solutions, Inc.

Safety Data Sheet

Revision Date: 10/06/2015

Date Printed: 10/06/2015

Date Reviewed: 10/06/2015

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Common Name:	Chlorine Dioxide Release Material
Chemical Name:	Chemical Mixture containing Sodium Chlorite

Product Use and Deodorizer. Restrictions on Use:

Supplier: ClorDisys Solutions, Inc. PO Box 549 Lebanon, NJ 08833

For Chemical Emergency Call CHEMTREC (24 Hours/Day, 7 Days/Week):

1-800-424-9300 (US, Canada, Puerto Rico, Virgin Islands) 1-703-527-3887 (Outside Above Area)

2. HAZARDS IDENTIFICATION

Color:	White
Form:	Tablets
Odor:	Odorless to slight chlorine odor
Flash Point, C:	Not Applicable

Most Important Hazards: Harmful if swallowed. Contact with combustible material may cause fire. Contact with acids liberates toxic gas. Risk of serious damage to eyes. Irritating to eye and respiratory system. Skin eruptions may occur after direct contact. Cause corrosion injuries. Toxic to aquatic organism, may cause long-term adverse effects in the aquatic environment.

Potential Health Effects:

Inhalation:	Exposure to dust particles generated from this material causes irritation of the respiratory tract. May result in coughing, difficulty breathing and sore throat. Exposure to high concentrations may result in bronchospasms.
Ingestion:	Harmful if swallowed. May cause pain, nausea, vomiting and diarrhea. May cause weakness and fatigue.
Skin Contact:	Causes skin irritation. Prolonged contact may cause dermatitis. Contact with a dilute chlorine dioxide solution (100 ppm), made from a similar product, was slightly irritating to rabbit skin. (See Section 11.)
Eye Contact:	Causes severe eye irritation.
Other Effects:	NOTE: Upon exposure to moisture, this product releases Chlorine Dioxide gas. Inhalation of Chlorine Dioxide may cause irritation, coughing, wheezing and burns of the mucous membranes. Inhalation of large amounts may lead to pulmonary edema and bronchitis. Direct contact with Chlorine Dioxide causes eye and skin irritation and may cause burns. Toxic by oral exposure.
Chronic Health Hazards:	Prolonged or repeated exposure to dust may cause pulmonary problems.
Aggravated Medical Conditions:	Pulmonary disorders. Dermal ailments. Page 1 of 6

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS #	Weight in Product %	Notes
Sodium Chlorite	7758-19-2	24%	None
Additives	231-836-6	76%	None

4. FIRST AID MEASURES		
General Indications:	Body and eye protection. Bring person out of danger area.	
After inhalation:	Move affected person to fresh air. If not breathing, give artifical respiration. If breathing is difficult, give oxygen. Get medical attention. Flush mouth with water.	
After skin contact:	Immediately wipe off the excess material from skin. Wash with soap and water. Remove contaminated clothing and launder before reuse. Get medical attention if irritation persists	
After eye contact:	With open eyelid, instantly flush with plenty of lukewarm water for at least 15 minutes and get immediate medical attention If person is conscious and able to swallow, give huge amounts of water to dilute. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention immediately. Stomach flush with gastroscope.	

5. FIRE FIGHTING MEASURES		
Extinguishing Media:	Flooding amounts of water.	
Fire Fighting Procedures:	Positive pressure, self-contained breathing apparatus. Wear full protective clothing. Apply water from a protected location or from a safe distance.	
Unusual Fire and Explosion Hazards:	Product is an oxidizer. Oxidizers decompose, especially when heated, to yield oxygen or other gases which will increase the burning rate of combustible matter. Contact with moisture will produce chlorine dioxide gas. The lower explosive limit (LEL) for chlorine dioxide is 10%. If large amounts of the product are involved in a fire, it is possible that the application of water mist or fog could release enough chlorine dioxide gas in a confined space to present an explosion hazard. The chlorine dioxide will dissolve harmlessly in flooding amounts of water.	

6. ACCIDENTAL RELEASE MEASURES

Spill Procedures:

Contain spillage. Scoop up or vacuum into a container for a reclamation or disposal. Avoid dusting. If a solution of this product is spilled, take up as much as possible and place in a suitable container for disposal in compliance with local regulations. Dilute chlorine dioxide solutions (100-200 ppm) do not need to be pH neutralized. Flush residual material down drain, with an excess of water, in Page 2 of 6

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accordance with local regulations.

Personal Precautions:	Wear protective clothing and respiratory equipment. Avoid dust formation.
Environmental Precautions:	Prevent contamination of soil, surface water and sanitary sewer system. Avoid releases to the environment.
	7. HANDLING AND STORAGE
Handling:	Store only in original packing. Only use content of packaging in one shot. NO partial use. Wear protection gloves and respiratory equipment. Avoid contact with eyes, skin and clothing. Avoid generating or breathing dust. Wash thoroughly after handing.
Fire and Explosion Protection Indications:	Avoid direct sunlight. Avoid contact with heat, sparks, open flame and static discharge. Protect against moisture or humidity. Keep away from acids, and combustible materials. Store in a cool, dry location away from incompatible materials.
Storage Room:	Cool, dry, clean and locked. Well ventilated.
Combined Storage:	Keep away from metal, metal salts, bases, reducing agents and combustible materials.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Ingredient	Weight in Product %	OSHA PEL	ACGIH TLV
Sodium Chlorite 7758-19-2	24%	None Established	None Established
Additives	76%	None Established	None Established

Unless otherwise noted, all values are reported as 8-hour Time-Weighted Averages (TWAs) and total dust (particulates only). All ACGIH TLVs refer to the 2002 standards. Unless otherwise noted, all OSHA PELs refer to 29 CFR Part 1910 Air Contaminants: Final Rule, January 19, 1989.

PEL TLV Notes:	NOTE: Upon exposure to moisture, this product releases chlorine dioxide. The OSHA PEL, as well as the ACGIH TLV, for chlorine dioxide is 0.1 ppm, 0.3 ppm STEL.	
General:	Keep away from food and beverages. When touching clothing immediately rinse with water. Avoid generating dust. Do not smoke.	
Skin Protection:	Avoid skin contact. Wear clean, body protection clothing.	
Personal Protective Equipment:	Safety glasses with side shields. PVC protective gloves. Wear clean, body-covering clothing. Wash hands before breaks and immediately after handling product.	
Respiratory Protection:	Use approved respiratory protection if exposure limits are exceeded, or overexposure is likely. If respiratory protection is used, follow all requirements for respiratory programs set forth in OSHA regulations (29 CFR 1910.134).	
Ventilation:	General ventilation. Local exhaust ventilation is recommended to control exposures to within applicable limits.	
9. PHYSICAL AND CHEMICAL PROPERTIES		
Form:	Tablets	
Color:	White	
Odor:	Odorless to slight chlorine odor	
Boiling Point, C:	Min: 120 Max: 190 Decomposes	
Bulk Density:		
Vapor Pressure:	Negligible	

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Solubility (in water): pH: Reacts with Water Min: 6 Max

5 **Max:** 8 (0.01 % Solution in water)

10. STABILITY AND REACTIVITY		
Stability Data:	Stable	
Conditions/Hazards to Avoid:	Heat, exposure to light	
Incompatibility (Materials to Avoid):	Strong acids or alkalis. Reducing agents. Combustible Materials.	
Hazardous Reactions:	Upon exposure to water vapor, chlorine dioxide gas is released.	
Hazardous Decomposition Products:	Chlorine	
Polymerization:	Will not occur.	
Polymerization- Avoid:	None anticipated.	

11. TOXOLOGICAL INFORMATION

Information on product:

Acute Toxicity- Dermal:

For 100 ppm chlorine dioxide solution made from a similar product: Acute Dermal LD50 (rat)>5000 mg/kg

Acute Toxicity- Inhalation:

For 200 ppm chlorine dioxide solution: Acute Inhalation LC50 (rat, 4-hour)>2.7 mg/I

Skin Irritation:

For 100 ppm chlorine dioxide solution made from a similar product: Primary Dermal Irritation Index (rabbit) = 0.1 (slightly irritating)

Eye Irritation:

For 100 ppm chlorine dioxide solution made from a similar product: Primary Eye Irritation (rabbit)=non-irritating

Sensitization:

For 100 ppm chlorine dioxide solution made from a similar product: Dermal Sensitization (guinea pig)=not a contact sensitizer

NOTE: Upon exposure to moisture, this product releases chlorine dioxide. The oral LD50 in rats for chlorine dioxide has been reported as 292 mg/kg.

12. ECOLOGICAL INFORMATION		
Fish Toxicity:	LD50 (96 h)= 100 - 2000 mg/L (Brachydanoio rerio, OECD 203)	
Bacteria Toxicity:	EC50 = 100 – 800 mg/L (OECD 209)	
Environmental Fate:	May cause long-term adverse effects in the aquatic environment –	
Ecotoxicological Information:	Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.	
13. DISPOSAL CONSIDERATIONS		
US EPA Waste Number:	D001 D003	

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Disposal of Waste Method:	Federal, state and local disposal laws and regulations will determine the proper waste disposal/recycling/reclamation procedure. Disposal requirements are dependent on the hazard classification and will vary By location and the type of disposal selected. All waste materials should be reviewed to determine the applicable hazards (testing may be necessary).
Waste Key Number:	060714
Waste Name:	Inorganic chemical compound.
Original Packaging:	Do not reuse original packaging. Clear empty packaging with copious amounts of water and dispose in accordance with local regulations.

14. TRANSPORT INFORMATION		
International Transport Regulations: UN/PIN Number:	UN 2813 (Ground) /UN 2813(Air)	
ICAO Class: Proper shipping name:	4.3 Dangerous when wet Water reactive solid, n.o.s (Sodium Chlorite) in	
ICAO Packing Group:	Π	
Exceptions:	CD tabs, when kept in its original foil packaging, can be packaged and shipped according to IATA 2.6.2.2, <i>Dangerous Goods Permitted in Excepted Quantities</i> .	
<u>US Transportation Regulations:</u> DOT Classification:	4.3 Dangerous when wet	
DOT Proper Shipping Name:	Water reactive solid, n.o.s. (Sodium chlorite)	
Packing Group:	II	
Exceptions:	CD tabs, when kept in its original foil packaging, can be shipped according to 49 CFR 173.4, <i>Small quantities for highway and rail.</i>	

Canadian Transportation	of Dangerous Goods (TDG):
TDG Classification	4.3 Dangerous when wet

TDG Classification

15. REGULATORY INFORMATION

International Inventories:	
United States:	This product or its ingredients are listed on or compliant with the TSCA Inventory.
Canada:	This product or its ingredients are listed on or compliant with the DSL.
Europe:	This product or its ingredients are listed on or compliant with EINECS.
Japan:	This product or its ingredients are listed on or compliant with MITI.
Australia:	This product or its ingredients are listed on or compliant with AICS.
Korea:	Not Determined

US Federal Regulations:

SARA 311/312 Hazard Categories:

Acute Health Hazard Fire Hazard Reactive Hazard

CAA 602 Ozone Depleting Substances (ODS):

This product neither contains nor is manufactured with an ozone depleting substance subject to the labeling requirements of the Clean Air Act Amendments 1990 and 40 CFR Part 82.

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US State Regulations:

VOC Content (CARB): Not Applicable

Canadian Regulations:

WHMIS Classification: Class B Division 6 Class C Class D Division 1 Subdivision B Class D Division 2 Subdivision B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

16. OTHER INFORMATION		
Revision Number:	1	
Section(s) Revised	None	
Prepared By:	ClorDiSys Solutions, Inc	

The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations, management and for persons working with or handling this product. The information presented in the SDS is premised upon proper handling and anticipated uses, and is for the material without chemical additions/alterations. We believe this information to be reliable and up-to-date ad of the date of publication, but make no warranty that it is. Additionally, if this Safety Data Sheet is more than three years old, please contact the supplier at the phone number listed in Section 1 to make certain that this sheet is current. Clordisys Solutions, Inc License granted to make unlimited copies for internal use only.