

SEP 09 2020
DATE REVIEWER
NEW
DWP

PureVista

Deodorizer Oxidizer

(For Control of Odor-Causing Bacteria, Mold, and Mildew)

Restricted Use Pesticide: For retail sale and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS
Corrosive: Causes irreversible eye damage and skin burns. Do not get in eyes, on skin, or on clothing. Flush if swallowed, absorbed through the skin, or inhaled. Wear a NIOSH approved full face acid gas respirator, long sleeved shirt and long pants. Wear a digital chlorine dioxide detector. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS
 This product is potentially toxic to fish and aquatic organisms. All spills must be contained and immediately recovered or flushed with water into a chemical sewer or segregated holding tank or pond, which is provided for the specific purpose of neutralization. Chlorine Dioxide solutions must NEVER be flushed to a sanitary sewer or other outlet, which connects to watersheds or unconfined runoff streams. Contact local and federal authorities for applicable regulations. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL AND CHEMICAL HAZARDS
 Dry sodium chloride is a strong oxidizer. Mix only into water. Contamination may start a chemical reaction with generation of heat, liberation of hazardous gases (chlorine dioxide is a poisonous, explosive gas) and possible fire and explosion. Do not contaminate with garbage, dirt, organic matter, pine oil, dry rag, or any other foreign matter.

Personal Protective Equipment and Protocols
 All persons purchasing and using PureVista chlorine dioxide products are required to pass a certification test. The certification process requires all persons to be recertified every 15 months.

Personnel working with chlorine dioxide must always wear the proper protective equipment. It is recommended that employees be provided with, and are required to use personal protective equipment and clothing necessary to prevent any possibility of skin or eye contact with chlorine dioxide. Remember the use of personal protective equipment is not a substitute for safe handling practices.

Avoid breathing vapors. After handling, always wash hands thoroughly with soap and water. Where vapor concentration of chlorine dioxide exceeds or is likely to exceed 0.1 ppm, a NIOSH approved full-face acid gas respirator is acceptable. A NIOSH approved self-contained breathing apparatus, with full-face piece, is required for vapor concentration above 5 ppm and for leaks under emergency. Follow any applicable respirator use standards and regulations.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. In its gaseous state, PureVista may be used in controlling and inhibiting the growth of odor causing bacteria, mold, and mildew in unoccupied confined spaces when used as follows by trained professional personnel: All personnel purchasing or using PureVista must be certified, see the section discussing **Personal Protective Equipment and Protocols**. Visible signs must be placed at the opening or door of the treated area warning patrons not to enter during treatment. Applicators must remain on site to ensure that all treatment areas remain empty until treatment is completed. Vents and other openings must be sealed before treated, and must be treated in such a way that vapors from the use of this product are not allowed to escape to adjacent rooms or other confined spaces.

***NOT FOR USE IN CALIFORNIA**
 Do not remove PureVista 2550 canister from vac pack wrapper until it is ready to be used. Remove plastic vacuum seal packaging and label from the PureVista 2550 canister, and place it into the PureVista 2550 launcher containing the correct amount of water. Place the launcher in the center of the automobile. Leave the automobile and close all doors and windows. Automobile must remain unoccupied for 8 hours. After treatment, test automobile with electronic monitor for chlorine dioxide content. Chlorine dioxide levels must be no higher than 0.1 ppm before re-entry is permitted. Only use one PureVista 2550 canister per automobile. Do not use multiple canisters or canisters larger than 25 grams.

***Unoccupied Automobiles:** PureVista is effective when used in residential automobiles, commercial automobiles (cars, trucks, vans, frame, trailers, railroad cars, railroad tanks, shipping containers, and storage containers), Prepare interior of automobile, remove all items from automobile. Close windows. Place lid on launcher. Place PureVista 2550 launcher lid on PureVista 2550 launcher with "teeth" facing down. Fill water to the "25" tooth of the 2550 launcher lid. See **Water Fill chart** at end of directions for water fill instructions. **DO NOT OVERFILL.**

***Unoccupied RVs/boats/Cabins/Aircrafts:** PureVista is effective when used in unoccupied RVs, unoccupied boat cabins located in privately owned boat vessels, and unoccupied boat cabins located in commercial boat vessels including, but not limited to, cruise ships. Prepare space/room: open all cupboards, drawers, cabinets, closets and doors in the areas to be treated. Remove exposed foods. Close outside doors and windows. Shut off fans and air conditioners.

Place lid on launcher: Place PureVista launcher lid on PureVista launcher, with "teeth" facing down. Add water to launcher: the amount of water will vary depending on which PureVista product is being used. See **Water Fill chart** at end of directions for water fill instructions. **DO NOT OVERFILL.**

Unoccupied Rooms including but Not Limited to Commercial, Lodging, and Non-Residential Spaces: Prepare space/room: Open all cupboards, drawers, cabinets, closets and doors in the areas to be treated. Remove exposed foods. Close outside doors and windows. Shut off fans and air conditioners.

Place lid on launcher: Place PureVista launcher lid on PureVista launcher, with "teeth" facing down. Add water to launcher: the amount of water will vary depending on which PureVista product is being used. See **Water Fill Chart** at end of directions for water fill instructions. **DO NOT OVERFILL.**

ACTIVE INGREDIENT: Sodium Chlorite* 28.0 %
 OTHER INGREDIENTS 72.0 %
 100.0 %
 *AVAILABLE CHLORINE 22.0 %

KEEP OUT OF REACH OF CHILDREN
DANGER/POISON
POISON
FIRST AID

Water Fill Chart	Water Fill Chart																		
PureVista 12.5 Fill with water to the "25" tooth of the 2550 launcher lid.	PureVista 12.5 Fill with water to the "25" tooth of the 2550 launcher lid.																		
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PureVista 100 Fill with water to the "100" tooth of the 100/200 launcher lid.	PureVista 100 Fill with water to the "200" tooth of the 100/200 launcher lid.																		
PureVista 250 Do not remove PureVista 2550 canister from vac pack wrapper until it is ready to be used. Remove plastic vacuum seal packaging and both labels from the PureVista canister. Put all labels into the PureVista launcher containing the correct amount of water. Place the launcher in the center of the room, or where odors are most concentrated. Leave in the room and close all doors, windows and vents. Room must remain unoccupied for 8 hours. After treatment, test room with electronic monitor for chlorine dioxide content. Chlorine dioxide levels must be no higher than 0.1 ppm before re-entry is permitted. Treatment dosage are as follows: <table border="1"> <thead> <tr> <th>PureVista (ounce packet)</th> <th>Target PPM</th> <th>Cubic Footage Treated</th> </tr> </thead> <tbody> <tr> <td>0.44 (12.5g)</td> <td>30</td> <td>500</td> </tr> <tr> <td>0.88 (25g)</td> <td>30</td> <td>1000</td> </tr> <tr> <td>1.76 (50g)</td> <td>30</td> <td>2000</td> </tr> <tr> <td>3.51 (100g)</td> <td>30</td> <td>4000</td> </tr> <tr> <td>7.02 (200g)</td> <td>30</td> <td>8000</td> </tr> </tbody> </table>	PureVista (ounce packet)	Target PPM	Cubic Footage Treated	0.44 (12.5g)	30	500	0.88 (25g)	30	1000	1.76 (50g)	30	2000	3.51 (100g)	30	4000	7.02 (200g)	30	8000	PureVista 250 Do not remove PureVista 2550 canister from vac pack wrapper until it is ready to be used. Remove plastic vacuum seal packaging and label from the PureVista 2550 canister, and place it into the PureVista 2550 launcher containing the correct amount of water. Place the launcher in the center of the automobile. Leave the automobile and close all doors and windows. Automobile must remain unoccupied for 8 hours. After treatment, test automobile with electronic monitor for chlorine dioxide content. Chlorine dioxide levels must be no higher than 0.1 ppm before re-entry is permitted. Only use one PureVista 2550 canister per automobile. Do not use multiple canisters or canisters larger than 25 grams.
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Have the product or label with you when calling a poison control center or doctor or going for treatment. For 24 hour emergency information on this product, call NPIC at 1-800-858-7378. During other times, call the poison control center at 1-800-222-1222.

NOTE TO PHYSICIAN:
 Probable mucosal damage may contraindicate the use of gastric lavage.

Distributed By:
 Sterling Bridge, LLC
 1241 N. Ellis Street
 Bensenville, IL 60106
 1-847-963-8465

Locker Rooms: Prepare space/room: Open all cupboards, drawers, cabinets, closets and doors in the areas to be treated. Remove exposed foods. Close outside doors and windows. Shut off fans and air conditioners.

***Directions for Controlling the Growth of Algae in Recirculating Cooling Water Towers:**
 1. Clean body/fouling systems before starting treatment.
 2. When algae are visible, add an initial dosage of 6 fluid ounces (177ml) of a 2.00ppm soap per 1,000 gals of water in the system. Repeat if necessary until control is evident. Place one (1) PureVista 100 (100g/3.53 oz) into 4 liter/1 gal gallon of water provides a 2.00ppm solution.

3. When algae control is evident, add a subsequent dose of 3 fl. oz. (86ml) of the PureVista 2.00ppm soap per 1,000 gals. of water in the system, twice per week or as needed to maintain control.
 4. Add PureVista directly to the cooling tower drip pan (cold water basin) or near the inlet to the recirculating pump.

***Potable Water Treatments**
 The selected generator should be equipped with a sensor that detects the concentration of ClO₂ that is produced. In addition, the generator should be periodically calibrated according to the manufacturer's instructions on the chlorine dioxide, quantitated by volumetric titration. Read the instructions on the chlorine dioxide generator system before using this product.

ClO₂ is used as both an oxidant and a disinfectant in drinking water treatment. For most municipal and public potable water systems, a chlorine dioxide residual concentration of 2 ppm is sufficient to provide adequate disinfection. Residual disinfectant byproducts must be monitored as required by the National Primary Drinking Water Regulations (40 CFR 141) and state drinking water standards.

***Industrial Cooling Water Treatment**
 Control of bacterial slime and algae in industrial recirculating and one-pass cooling systems, the required dosages will vary depending on the exact application and the degree of contamination present. The required ClO₂ residual concentrations range between 0.1 and 5.0 ppm. Chlorine dioxide may be applied either continuously or intermittently. The typical chlorine dioxide residual concentration range is 0.1 - 1.0 ppm for continuous dosing, and 0.1 - 5.0 ppm for intermittent dosing. The minimum acceptable residual concentration of ClO₂ is 0.1 ppm for a minimum one minute contact time.

***Water Control in Water Systems**
 ClO₂ generated from sodium chlorite may be used for mollusk control in commercial and industrial recirculating and once pass cooling water systems. The required dosages will vary with the system type, the degree of water contamination present and the desired level of control. Depending on the extent of the infestation, sodium chlorite may be applied either continuously or intermittently through a chlorine dioxide generating system to achieve the necessary ClO₂ residual concentration.

Veget. Control: Maintain a continuous chlorine dioxide residual of 0.1 - 0.5 ppm.
Intermittent Dose: Apply ClO₂ to obtain a chlorine dioxide residual concentration of 0.2 - 25 ppm. Repeat as necessary to maintain control.
Continuous Dose: Maintain a ClO₂ residual concentration of up to 1.0 ppm.

***Food Plant Process Water Treatment**
 Chlorine dioxide generated from sodium chlorite is effective for use in controlling microbiological growth in fume water and other food processing water systems such as chill water systems, chills brine and hydro coolers. The required dosages will vary with the process conditions and the degree of contamination present. Depending on the requirements of the specific water system, ClO₂ should be applied continuously or intermittently to achieve a ClO₂ residual concentration between 0.25 and 5.0 ppm.

Water containing up to 3 ppm residual ClO₂ may be used to:
 1. Provide microbial control in wash or process water for fruit and vegetable raw agricultural commodities.
 2. Control spoilage and decay causing non-public health microorganisms present in the wash or process water for fruit and vegetable raw agricultural commodities.
 3. Provide microbial control in poultry chiller water.

Water containing up to 3 ppm residual chlorine dioxide may be used for washing fruits and vegetables that are not raw agricultural commodities in accordance with 21 CFR 173.300. Treatment of the fruits and vegetables with chlorine dioxide must be followed by a potable water rinse, or by blanching, cooking or canning.

***Wastewater Treatment**
 ClO₂ is effective as both a disinfectant and an oxidant in wastewater treatment. The required dosages will vary with water conditions and the degree of contamination present. For most municipal and other wastewater systems, a chlorine dioxide residual concentration of up to 5 ppm is sufficient to provide adequate disinfection.

***Sulfide Odor Control:** between pH 5-9 a minimum of 5.2 ppm of ClO₂ should be applied to oxidize 1 ppm of sulfides/mass as sulfide ion. For phenol oxidation, at pH less than 8, 1.5 ppm ClO₂ will oxidize 1 ppm phenol, at greater than 10, 3.5 ppm ClO₂ will oxidize 1 ppm phenol.

***Bacterial Slime Control in Paper Mills**
 ClO₂ generated from sodium chlorite is effective for use in controlling microbiological growth in white water paper mill systems. The required dosages will vary with the degree of microbiological and process contamination present. Depending on the specific requirements of the system, sodium chlorite should be applied continuously or intermittently through a chlorine dioxide generating system to achieve a chlorine dioxide residual concentration between 0.1 and 5.0 ppm. Intermittent treatments should be repeated as often as necessary to maintain control.

***Directions for Use in Controlling Microbial Population in Poultry Processing Water**
 ClO₂ generated from this product may be used as an antimicrobial agent in water used in poultry processing, provided that the residual concentration of chlorine dioxide does not exceed 3 ppm, as determined by an appropriate method in accordance with 21CFR§173.300.

***For treatment of poultry chill water:** apply this product as necessary through a ClO₂ generation system to maintain a residual concentration of up to 3 ppm.

***Bacterial Control in Oil Wells and Petroleum Systems**
 ClO₂ is effective in the remediation of bacterial and sulfide contamination commonly found in oilfield production, reaction and disposal fluids. The required dosages will vary with process conditions. ClO₂ may be applied either continuously or intermittently to oil well production water as it is separated from the oil, and before it is injected into the well.

For Continuous Doses, ClO₂ may be applied at dosages slightly higher than sulfide's oxidative demand as determined by a demand test. For intermittent treatment, chlorine dioxide should be applied at a shock dosage of 200 - 3000 ppm.

***Feed requirements:** Feed rates of PureVista will depend on the severity of contamination and the degree of control desired. The exact dosage will depend on the size of the system and residual necessary for effective control. Depending on the generator type, PureVista may be diluted with water to the point of use to prepare a lower % active aqueous solution for use in chlorine dioxide generators.

Methods of feed: Large amounts of chlorine dioxide (ClO₂) can be generated by several common methods, including:
 1. The chlorine method which utilizes a sodium chlorite solution and chlorine gas, or
 2. The hypochlorite method which uses a sodium chlorite solution, a hypochlorite solution, and an acid, or
 3. The Acid-chlorite method, which utilizes a sodium chlorite solution and an acid, or
 4. The electrolytic method, which utilizes a sodium chlorite solution, sodium and sodium chloride added as needed.

YOUR STRATING BLDG, LLC REPRESENTATIVE CAN PULL YOU IN THE SELECTION, INSTALLATION AND OPERATION OF THE APPROPRIATE FEED SYSTEM FOR YOUR SPECIFIC NEEDS.

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 4. The electrolytic method, which utilizes a sodium chlorite solution, sodium and sodium chloride added as needed.

OVERALL APPROACH TO FUMIGATION AND REMEDIATION
 The objective of ClO₂ fumigation is to effectively treat mild and moderate contamination, and odor causing bacteria and microorganisms present within buildings under operating conditions that protect life workers, the surrounding community and the environment.

Each fumigated building or subpart thereof is properly tented or sealed. During fumigation, operational parameters are monitored at an appropriate number of co-located ClO₂ gas sampling points. At the end of fumigation, the addition of ClO₂ gas is terminated and natural decay of the gas within the building begins. The building is airtight for the final stage. Building decay or ClO₂ removal continues until such time that ClO₂ concentration levels at all monitoring points have fallen below the Occupational Safety and Health Administration (OSHA) eight-hour time-weighted average (TWA) permissible exposure level (PEL) of 1.0 ppm, at which time the building is re-vented by fumigation personnel.

The user of this product should develop a site-specific Safety Plan of Action (SPA) that follows these local instructions and takes into account site-specific information such as the size of the structure, its contents, conditions, etc.

SPECIFIC USE INSTRUCTIONS

Site Preparation
 To the extent feasible, remove debris, non-removable items and water soaked materials. Eliminate any sources of water (e.g. roof leaks, damaged plumbing, etc.) that may contribute to further water damage and/or mold and/or bacteria growth. Open any enclosed spaces to allow maximum exposure to the ClO₂ gas during fumigation.

Building Containment
 Tent the building undergoing fumigation completely with a material proven to be impervious to ClO₂ gas, or effectively seal the building through utilization of sealing materials such as tape, caulking, etc. in all external cracks, crevices, etc. through which ClO₂ might otherwise escape during fumigation.

Negative Air Pressure
 Control ClO₂ gas in the building through the use of a negative air pressure system to maintain a slight negative pressure on the internal wall and ceiling of the building at all times.

Pause the fumigation process immediately should ClO₂ breakthrough be observed at any time during the fumigation process. The cause of breakthrough is ascertained and corrective measures are implemented as necessary.

Chlorine Dioxide Generation
 Generate ClO₂ in a ClO₂ generation system that produces ClO₂ gas through the use of an electrolytic generation system. The system reacts PureVista Sodium Chlorite solution in electrolytic cells producing ClO₂. Follow the label directions of that product. The ClO₂ gas generated will be pumped from the machine to the building.

Chlorine Dioxide Removal
 At the conclusion of fumigation, allow residual ClO₂ gas remaining in the building to decay naturally, or a quicker removal of ClO₂ as desired, allow fresh air to enter building.

Chemical Storage
 Store chemicals in drums (5, 30 or 55 gall) depending on the size of the building being fumigated. Use all personal and neutralization chemicals with secondary containment areas.

Process Wastewater
 Store wastewater generated by the fumigation process temporarily in a dedicated on-site storage tank. Collected and analyze representative samples of the wastewater for purpose of waste profiling. If the wastewater is determined to be non-hazardous, dispose of into the sanitary sewer system if allowed by the local publicly owned treatment works. Otherwise, send off site to a permitted non-hazardous wastewater treatment facility.

Utility Equipment
 Provide standby electrical generation power to provide power to critical fumigation systems should utility power to fumigation site be interrupted at any time.

Equipment Testing
 Test all key fumigation system components as they are installed to ensure that all subsystems will operate as designed.

Before commencing the fumigation: conduct a low-level "puff" test in which all subsystems are simultaneously challenged as if it were the actual fumigation with the exception that significantly lower ClO₂ concentration levels are used (i.e., 200 to 500 ppm) than those used during the actual fumigation process and ClO₂ is introduced into the building for a much shorter duration (i.e., 15-30 minutes). Design and conduct the test such that all elements that support the fumigation are proven functional, operational and effective.

Fumigation Operation Sequencing
 Perform fumigation activities in the following operational sequence to ensure safety and efficacy of the process:

Task Number	Task Description
1	Verify spill containment supplies are in place
2	Verify necessary chemical inventory is in place
3	Verify acceptable meteorological conditions exist
4	Conduct pre-fumigation safety meeting
5	Verify Emergency Response Team is in place
6	Verify Operations Team is in place
7	Confirm all personnel are out of building
8	Initial ClO ₂ generation
9	Initiate ClO ₂ concentration "ramp-up"
10	Initiate internal and external ClO ₂ gas sampling
11	Achieve minimum desired ClO ₂ concentration to start CT clock
12	Maintain ClO ₂ concentration above target level
13	Terminate ClO ₂ generation
14	Terminate gas sampling when ClO ₂ <1 ppm
15	Conduct building inspection entry

Temperature Monitoring
 Monitor temperature at an appropriate number of co-located building locations through the use of iOSB® U12-011 NTP-RF Data Loggers. The instrument has a measuring range of -4 to 158°F with an accuracy of ±0.5°F. Take measurements of 5-minute intervals during the conditioning, fumigation and aeration phases of the process. Obtain a local record of temperature readings by connecting the data loggers to a PC via USB cable from the various monitoring locations. Log data in the monitor during fumigation and download for manipulation following fumigation.

Chlorine Dioxide Monitoring
 Monitor ClO₂ concentration levels by means of a composite sample collection system constructed of 1/4-in inside diameter high-density polyethylene (HDPE) tubing. HDPE tubing has been shown to be non-reactive with ClO₂. Run the tubing from an appropriate number of co-located monitoring locations inside the building to the central sampling manifold located outside the building. Have knowledgeable sampling technicians collect samples and deliver them to an on-site laboratory for analysis.

Personal Protective Equipment (PPE)
 Hand sanitizers/applifiers must wear:
 • Long sleeve shirts and long pants
 • Shoes plus socks
 • Full face protective respirator using cartridge for chlorine dioxide gas, when concentrations are at or below 5.0 ppm. Use NIOSH/MSHA approved TC-35-314 Low-Pressure Self-Contained SCBA Respirator for gas concentrations above 5.0 ppm.
 • Waterproof gloves

CONDUCT PRECAUTIONS

Use fumigation operations in a manner that protects both workers and members of the general public from exposure to fumigation process chemicals through implementation of specifically designed safety measures.

Worker Safety
 Develop a Site-Specific Health and Safety Plan (HASP) to establish safe working and operating conditions for both fumigation preparation activities and fumigation operations. Prepare the HASP in accordance with applicable OSHA guidelines and regulations.

Health and Safety Training
 Establish minimum health and safety training requirements for all personnel involved in fumigation operations. Do not allow workers to participate in, or supervise field activities until they have been fully and fully trained by their job function and responsibility. Cover appropriate elements during initial training including: (1) names of personnel and alternate responsible for site safety and health; (2) safety, health and other hazards present on site; (3) proper use, care and maintenance of PPE; (4) work practices by which the worker can minimize risk from hazards; (5) safe use of engineering controls and signs which might indicate over exposure to hazards; and (7) contents of the site HASP.

Building Containment
 Tent the building undergoing fumigation completely with a material proven to be impervious to ClO₂ gas, or effectively seal the building through utilization of sealing materials such as tape, caulking, etc. in all external cracks, crevices, etc. through which ClO₂ might otherwise escape during fumigation.

Negative Air Pressure
 Control ClO₂ gas in the building through the use of a negative air pressure system to maintain a slight negative pressure on the internal wall and ceiling of the building at all times.

Pause the fumigation process immediately should ClO₂ breakthrough be observed at any time during the fumigation process. The cause of breakthrough is ascertained and corrective measures are implemented as necessary.

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