



AquaGaz is a safe and effective deodorizer. It eliminates odors quickly and easily by harnessing the power of gaseous chlorine dioxide by killing germs, bacteria, viruses, mold and mildew by attacking the microbial through oxidation. **AquaGaz** can also oxidize volatile organic compounds such as formaldehyde, benzene, etc. produced by our easy-to-use vapor release delivery system. **AquaGaz** eliminates odor at its source and can reach hard to access confined areas such as rooms, basements, cabinets, buses, garbage rooms, HVAC duct works, fan-coil units, ambulances, etc., in just 4-6 hours.

Gaseous chlorine dioxide used to be technically difficult to use and were only used by trained professionals for microbial control situations. NOW, with over 12 years of R&D, our rigorously field-tested patented and patent pending(s) products have taken a foothold in the commercial and retail market. **AquaGaz** is very simply, easy and safe to use by utilizing gaseous chlorine dioxide for odor causing problems. No residual active compound is left behind, therefore, no rinsing is required.

AquaGaz can be used regularly. Just add water and the unique functionality built into the design ensures that our product is safe for both the user and the environment. Our Chlorine Dioxide products can turn anybody into an odor removal specialist. It is that simple.

AquaGaz uses a state-of-the-art, biodegradable sponge packet that just needs water to be activated. Open the package, add water, place the packet in the water, close up the space and walk away! When you return you will have an odor-free space. Our product destroys odors at the source. **AquaGaz** has done the impossible, make gaseous chlorine dioxide available and easy to use for the consumer, homeowner, or anyone with an odor dilemma with safe, easy-to-use, biodegradable, odor elimination and disinfection products. Let us help you get rid of your odor problem for good.



FEATURES

- * Safe-easy to use
- * No capital requirement is required
- * Slow release of gaseous chlorine dioxide
- * Does not react with ammonia
- * Mildew & microbial control
- * No harmful chemical residue
- * Oxidize volatile organic chemicals
- * No rinsing required
- * Simple activation procedures
- * More soluble in water
- * Destroys phenols and has no distinct smell
- * Requires shorter contact time to be effective than chlorine

Simple to use

Easy to use

Safe to use



AquaGaz penetrates the cell wall of the microorganism and disrupts metabolic functions. This is more efficient than other oxidizers that “burn” whatever they come in contact with. This allows of lower effective concentrations to be used.

AquaGaz unlike other disinfectants, is a dissolved gas that penetrates biofilm by molecular diffusion. However, other oxidizers react mostly on the surface of the biofilm to form an oxidized layer, like charring on wood. This precludes further penetration.



INTERNATIONALLY RECOGNIZED AND APPROVED ACTIVE INGREDIENT

SUMMARY

To our knowledge The Johns Hopkins Hospital was the first medical facility in the United States to receive a consecutive public water system permit for the application of a point of entry chlorine dioxide treatment system.

The efficacy of Chlorine dioxide is influence by proper system application, operation, control and monitoring of *Legionella*, pathogenic bacteria and disinfectant residuals. Additionally, identifying and correcting piping deficiencies and understanding water usage is necessary. It is essential that daily flushing protocols and prompt remediation after disruptions to the potable water system be implemented.

Our data confirms that Chlorine dioxide is safe and effective in controlling and eliminating *Legionella*, other pathogenic bacteria and bio-film. Further studies are encouraged.

*Clipping from Legionella control
in hospital testing, USA*

*USA Postal Services uses Chlorine
Dioxide for Anthrax decontamination*

UNITED STATES POSTAL SERVICE

Chlorine Dioxide

Trenton, NJ Processing and Distribution Center

This fact sheet is one in a series of fact sheets providing information on the anthrax decontamination activities at the Trenton, NJ Processing and Distribution Center.

What is chlorine dioxide (ClO₂)?
Chlorine dioxide is a yellow-green gas with an odor similar to chlorine. It has been recognized as a disinfectant since the early 1900's and has been approved by the United States Environmental Protection Agency for many applications.

How will chlorine dioxide be used at the Trenton Facility?
Chlorine dioxide, was selected in November 2001 by the USPS as the fumigation treatment approach and best available technology. The selection was based on test results performed by EPA at the USPS Brentwood P&DC in October and November. Experienced companies will produce chlorine dioxide onsite and systematically and safely fumigate the building. The gas will be generated on site at the time of use for greatest effectiveness. Chlorine Dioxide is not flammable nor explosive at the concentrations being used for the Trenton facility fumigation.

The decontamination process will employ a sophisticated air moving system to support the fumigation system and to optimize movement and distribution of gas throughout the facility. Additionally, many engineering control systems will be applied during the chlorine dioxide fumigation process to provide for the optimal environment for successful and thorough decontamination of the facility. These systems include temperature and humidity control, negative air scrubber system, gas dispersion fans, process control and monitoring systems.

The process control and monitoring systems will utilize a man-machine computer interface system to monitor and view the equipment and fumigation process in real time. Upon completion of the fumigation, a chemical scrubber will be introduced to neutralize the chlorine dioxide within the building.

What is chlorine dioxide used for?
Chlorine dioxide is safely used in large quantities in the United States on a daily basis (4 to 5 million pounds per day). It is commonly used for:
 • treating/disinfecting drinking water;
 • bleaching/pulp used in papermaking;
 • disinfecting food products such as flour, spices, shrimp, fruits and vegetables;
 • sanitizing food processing equipment;
 • odor elimination in industrial scrubbers and fish plants; and
 • sterilization in biomedical and pharmaceutical applications and of medical equipment.

APPLICATIONS



FIELDS OF APPLICATIONS

- * Musty Odor
- * Indoor Hygiene
- * Nursery, Playground & Kindergarten
- * Health Care Facilities
- * Institution Sanitation such as Rehabilitation Centre, Old Aged Homes
- * Public Toilets
- * Hotels and Hostels
- * Commercial and Industrial
- * Disinfection
- * Cooling Towers
- * Animal Complex
- * Aircrafts, ferries and vehicles

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