ClorDiSys

Decontamination Service

6-log Sterilization Level Kill

Decon Services

ClorDiSys provides decontamination services for routine or single-time events. Whether it is for contamination response or preventative decontamination of new or existing facilities, ClorDiSys' method of using chlorine dioxide gas allows us to completely decontaminate your facility all at once, with minimal equipment and minimal downtime. Gaseous systems provide the ability to achieve complete distribution and penetration to all surfaces within your facility, including cracks and crevices, which other methods (vapors, mists or fogs) cannot promise.

Quality Assurance

When perfoming a decontamination service, accurate gas concentration measurements are taken continuously from various places within the space using a calibrated photometer. The decontamination is only said to be complete once the proper dosage has been exceeded at all sample locations.

In addition to concentration measurements, biological indicators (BIs) can be used to test the efficacy of the decontamination. BIs consist of over 1 million bacterial spores known to be among the most resistant to chlorine dioxide gas. The BIs are placed in hard-to-reach places during the decontamination and then dropped into a growth media and incubated to check for growth. After 36 hours, the BIs are checked and if no growth is present, the decontamination is deemed successful.

Process Features

- Accurate CD Gas concentration monitor ensures every cycle is effective
- Able to decontaminate any size space
- Fully turnkey process
- No cycle development necessary
- Effective against viruses, bacteria, fungi, spores, beta lactams and pinworm eggs
- Fast turnaround time
- Great material compatibility
- Capable of achieving kill within ductwork
- Fast turnaround time

Benefits of Chlorine Dioxide Gas

- Safe on materials including sensitive electronics
- Process not affected by temperature or dew point
- ClO2 molecule smaller than viruses, bacteria and spores
- Naturally fills the space its contained within, contacing all surfaces evenly, including crevices deeper than microorganisms can reach
- No measurable residue
- Non-carcinogenic
- US EPA registered as a sterilant, able to kill all viruses, bacteria, fungi and spores
- Effective against beta lactams and pinworm eggs

Chlorine Dioxide Gas

Safety and Material Compatibility

CD gas is scientifically less corrosive than most other common decontamination methods. CD gas is compatible with electronics, epoxies, materials of construction (stainless steels), and more.

Decontaminating Agent	Oxidation / Corrosion Potential (V)	
Ozone	2.07	↑ More Corrosive
Peracetic Acid	1.81	
Hydrogen Peroxide	1.78	
Bleach	1.49	
Chlorine Dioxide	0.95	

Safety Features

Odor Detection

Odor Threshold at the 8-hr OSHA safety level

Non-Carcinogenic

Chlorine dioxide is a non-carcinogen (formaldehyde and ethylene oxide are known carcinogens and hydrogen peroxide is a Class A3 Animal Carcinogen according to the ACGIH)

Effective within water

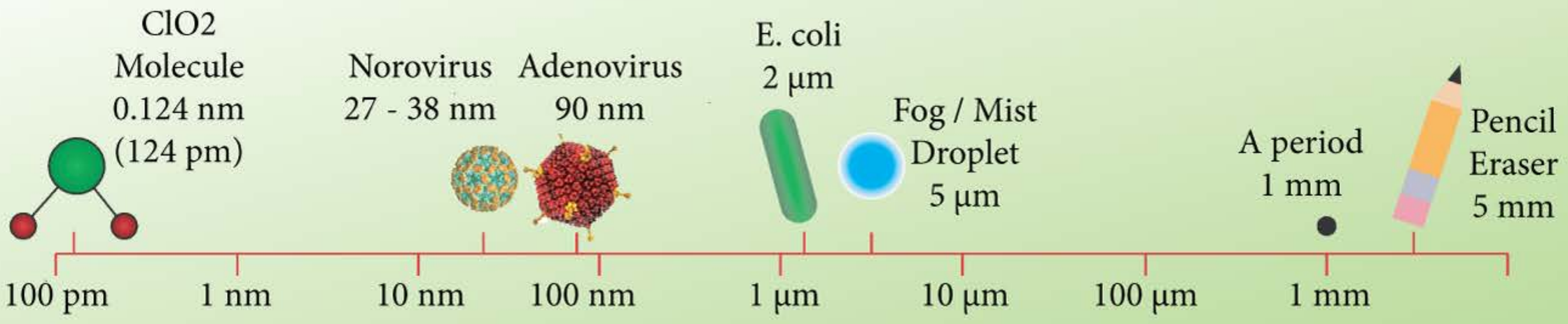
CD Gas is able to penetrate and maintain efficacy in water, unlike hydrogen peroxide

Widespread use

Chlorine dioxide is used for both drinking water treatment and the sanitization of many foods.

Applications

- **Rooms**
- **Entire facilities**
- **HVAC ductwork**
- **HEPA housings**
- **Processing tanks**
- **Pass-throughs**
- **Tented equipment**
- **Transport vans**
- **Lyophilizers**
- **Isolators**
- **Piping**
- **Biological safety cabinets**



Other solutions available from ClorDiSys

Megadox-P Large Volume Portable CD Gas Generator

Paletized for easy portability between buildings or sites, the Megadox-P is capable of decontaminating tanks, vessels, rooms and suites up to 280,000 ft^3

- integrated concentration monitor for precise process control
- Fast cycle times
- Simple control system and interface
- Effective against viruses, bacteria, fungi, spores, beta lactams and
- pinworm eggs.
- No required maintenance contracts

Decontamination Services Using Liquid CD or UV Light

A more affordable, but less effective method of decontamination compared to CD Gas. CD Gas offers superior distribution and penetration into hard-to-reach areas and the ability to guarantee 6-log sterilization level kill. Liquid CD and UV light both provide line-of-sight efficacy with difficulty achieving kill within crevices. Liquid CD and UV light are both capable of sporicidal kill, however it is impossible to guarantee sporicidal kill on all surfaces as accurate dosage cannot be measured.

- No areas too large
- Fast turnaround times
- No residues

Minidox-M Portable CD Gas Generator

An easily portable chlorine dioxide gas generator with an integrated concentration monitor capable of decontaminating isolators, chambers, vessels, rooms and suites up to 70,000 ft^3

- Able to connect up to many different types of chambers / rooms.
- Fast cycle times
- Simple control system and interface
- Effective against viruses, bacteria, fungi, spores, beta lactams and pinworm eggs.
- No required maintenance contracts