

## 10 Reasons You Should be Using X-Oxide / Chlorine Dioxide



X-Oxide made with Chlorine Dioxide is one powerhouse sanitizer that is getting more attention recently as food processors, hospitals and long-term care facilities look for more efficacious products to help them win the sanitation battle. Approved by the U.S. Food and Drug Administration (FDA) and the U.S. Environmental Protection Agency (EPA) as a food grade disinfectant, X-Oxide has a much gentler impact on the environment and surfaces than its competitors which makes it an excellent choice for restaurants, health care facilities and food processing plants. X-Oxide has been shown to destroy and prevent biofilms, one of the biggest challenges to food processors in destroying harmful bacteria. It also does not have the strong odor or corrosive qualities associated with chlorine.

### Here are 10 reasons why you should use X-Oxide / Chlorine Dioxide:

- 1.** Chlorine dioxide has 2.6 times the oxidizing power of waterborne chlorine (from bleach), giving it a wide spectrum of sanitizing uses and making it extraordinarily effective against a host of bugs and viruses. Studies have shown that it produces as high as a 6-log reduction.
- 2.** Chlorine dioxide has a much wider pH spectrum than chlorine, making it more versatile and forgiving in a variety of application situations. Unlike chlorine, chlorine dioxide remains a true gas dissolved in solution. The lack of any significant reaction of chlorine dioxide with water is partly responsible for its ability to retain its biocidal effectiveness over a wide pH range. It also has limited reactions with organics, indicating that much more of the chlorine dioxide added to a system is available as a biocidal agent, and is not consumed to the degree that chlorine would be under the same circumstances. In addition, chlorine will react with, and be consumed by ammonia or any amine, while chlorine dioxide reacts very slowly with secondary amines, and sparingly with primary amines or ammonia.
- 3.** Chlorine dioxide is registered with EPA (Registration No. xxxxxxxx), and is considered an excellent bactericide, fungicide and antimicrobial agent. It has passed the EPA's stringent DIS/TISS guidelines for use as a disinfectant and as a food-contact surface sanitizer.

- 4.** The FDA and the U.S. Department of Agriculture (USDA) have approved stabilized sodium chlorite (a precursor) and chlorine dioxide in food processing plants for sanitizing and controlling bacteria and mold.
- 5.** Chlorine dioxide is currently under EPA review as a surface sanitizer for *E. coli* O157:H7 and drug-resistant Salmonella. It is also currently under EPA review as a virucide for HIV and Hepatitis A and for use as a fungicide, virucide and algaecide.
- 6.** Chlorine dioxide has been found to be one of the most effective tools for dispersing biofilms, and in some cases, inhibiting the formation of future biofilms. This function is especially valuable in the small cooling towers of food processing facilities where food product contamination can contribute to heavy films or algal slimes. Biofilm is a polysaccharide film or coating that protects and harbors viable bacteria colonies making surfaces more difficult to clean and disinfect.
- 7.** Chlorine dioxide can be used on food-contact surfaces at diluted concentrations as low as 5 parts-per-million (ppm). In some cases, the compound has demonstrated a rapid kill of bacteria much less than the 30-minute period typically used in disinfection studies. Because it is so powerful in such small amounts, it is also extremely economical.
- 8.** So far, problem cells have shown little ability to develop resistance to chlorine dioxide, as they can with other sanitizers, making it a consistent tool in the sanitation toolbox.
- 9.** Chlorine dioxide generating systems can be used for odor control, sanitation and water purification applications. XO-USA Corp. offers a range of odor control and disinfectant products, which eliminates older and more harsh products and technology.
- 10.** Unlike chlorine bleach and bromide, which make carcinogenic trihalomethanes that get washed down the drain and deposited in the environment, chlorine dioxide donates oxygen, breaking down to water, oxygen and common table salt. This makes it much less corrosive to equipment and a superb environmental choice. It also breaks down quickly, which means it won't harm the soil or add toxic deposits to the ground.

Chlorine dioxide has a wide spectrum of uses. It's got amazing firepower, it's economical, and its environmental profile is safer than other choices. There's nothing else out there that can compete.

Visit our website for more information and a sample.

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