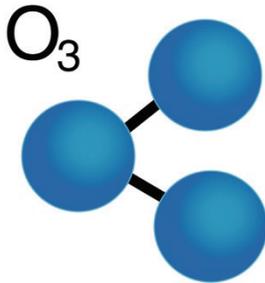


## INTRODUCTION TO OZONE



One of nature's most powerful oxidizers (second only to elemental fluorine), ozone has been used as a powerful organic disinfectant and sanitizer since the early 1900s. Ozone is widely used for water treatment, including disinfection of municipal water supplies, swimming pools, spas, cooling towers, and sewage treatment plants. Today, nearly all bottled water is treated with ozone.

The United States Department of Agriculture accepted ozone as safe and suitable for use in the production of meat and poultry products in 2000 (Final Ruling), and the States Food and Drug Administration approved ozone as an antimicrobial agent for food in 2001.

## WHY OZONE?

- Ozone is a gas made of just one thing: oxygen
- Unlike harsh liquid sanitizers, ozone gas penetrates into padding and fabric where spray sanitizers cannot go
- Unlike other sanitizers, such as chlorine bleach, ozone gas does not damage or impact the integrity of the fabric or padding
- Ozone gas can sanitize fabrics and items that are non-washable
- Ozone eliminates the use of hot water
- Ozone is very inexpensive to produce
- Ozone substantially reduces offensive odors, which are likely the result of decomposition of the bacteria and viruses
- Ozone will not damage, discolor, or decrease the life of paper, wood, metal or glass items and most plastics





## THE SCIENCE SUPPORTING THE ZONO

The ZONO is a “Disinfectant” and “Sanitizer”. What does that mean? To “disinfect” a virus means to inactivate or destroy microorganisms on inert surfaces, and in testing it is a 99.99% kill rate of the microorganism tested. To “sanitize” means to reduce microorganisms to levels considered safe from a public health viewpoint, and in testing it is a 99.9% kill rate of the microorganism tested. For example, on common liquid disinfectants, you will see a claim that states the product kills 99.99% of common viruses+, and on sanitizers you will see a claim that states the product kills 99.9% of common bacteria\*. The + then refers the reader to the virus tested using the chemical and the \* refers the reader to the bacteria tested using the chemical.

People often mistakenly use the terms sanitize, disinfect, and sterilize interchangeably. Those terms have distinct meanings under the law and U. S. EPA regulations.

## LABORATORY VALIDATION

The efficacy of our equipment has been verified in independent testing by Aerobiology Laboratory Associates (December 2010) and the University of Georgia, Center for Food Safety, College of Agricultural and Environmental Sciences (February 2011).

The ZONO Cabinet meets the Official Analytical Chemists (AOAC) definition of sanitizing non–food product surfaces, which requires a contamination reduction of 99.9% or a three (3) log kill.

The ZONO Cabinet meets the EPA’s requirements for making Virucidal claims for a surface disinfectant which requires at least a 4 log<sub>10</sub> reduction in virus titers (using Feline Calicivirus and Murine Norovirus model viruses) after treatment.



## SAFETY INFORMATION

At ZONO Technologies, your safety and the health of the environment are our top priorities. We work to provide you with accurate instructions and warnings and first-aid and safety information to ensure that when you use the ZONO Cabinet, as instructed, you will be safe.

### Display Panel

The Display Panel on the front of the ZONO always tells the operator of the status of the ZONO, whether it is locked or unlocked, safe to open, or if a cycle is ongoing or complete.

### Access Code and Green Start Button

Before the operator can start a disinfecting and sanitizing cycle, heat cycle, drying cycle or lock the doors, the operator must enter an "Access Code," a sequence of numbers given to the operator then open the doors to the ZONO and press a green "start" button inside the ZONO. The same "Access Code" is used to unlock the door. The magnetic lock prevents the operator from opening the door if it is unsafe.

### Magnetic Lock

The magnetic lock on the door prevents the door to the ZONO from being opened if ozone level inside the ZONO is not safe for the door to be opened.

### Inside Ozone Sensor

The ozone sensor inside the ZONO monitors the ozone level to ensure that the ZONO is properly operating and that it is safe to open the door. As stated above, the magnetic lock prevents the doors from being opened if it is not safe to open the door.

### Outside Ozone Sensor

The ozone sensor located outside of the ZONO cabinet detects ozone outside of the cabinet at a level below 0.1 ppm. The 0.1 ppm level is the level that OSHA allows workers to be exposed to for eight hours a day. If ozone is detected outside of the ZONO cabinet at 0.1ppm, the ZONO will stop producing ozone, an alarm will sound, and the Display Panel will state that ozone is detected outside the ZONO.