



HOME OZONE GENERATOR 2

INFORMATION AND INSTRUCTION MANUAL



Read the instructions carefully before using the Home Ozone Generator 2

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TECHNOLOGY

THE CHARACTERISTIC OF OZONE

Ozone, which has the scientific name O^3 is created by combining three oxygen atoms. It has a high oxidising ability, which is effective for disinfecting and sterilising. It can kill most bacteria in the water or in the air. It is accepted as a broad-spectrum, effective disinfectant and contains ozone. Ozone is an important component of our atmosphere. Our atmosphere confines 0.01-0.04ppm of ozone, which balances the level of bacteria and mildew in nature. Ozone is also created electrically in nature during active thunderstorms. The electrical discharge creates that positive sweet smell that we understand as clean fresh air.

The molecule of ozone is inherently unstable and tries to break down into the oxygen molecule as quickly as possible. This is what makes ozone such a great air and water cleaner. The ozone molecules need to be combined with something in order to break down so that they end up oxidising organic compounds and turn them into harmless carbon dioxide and water. Ozone quickly breaks down into oxygen, it's considerably less toxic than disinfectant chemicals like chlorine. It has been called the cleanest oxidiser and disinfectant.

WHAT OZONE CAN DO

- Kill microorganisms
- Kill bacteria
- Kills most Coliform and staphylococcus in the air
- Kills coliform and staphylococcus aureus on the surface of objects
- Kills coliform and staphylococcus and salmonella in the phosphate alleviant
- Kills coliform in water
- Kills bacteria spores
- Kills Brevibacterium spores
- High ability in killing bacteria in the air but not bacteria spores
- Kills 99.999% of brevibacterium spores in the water
- Kills viruses
- Destroys 99.99% of HBsAG and 100% of HAAg
- Destroys Influenzas Virus in the air
- Destroys PV 1 and Hepatitis A virus in the water
- Destroys SA-11 in water
- When the concentration of ozone in the blood serum reaches to 4mg/l it will destroy the HIV at 106cd50/ml
- Kills 100% of aspergillus versicolor and penicillium
- Kills 100% of Aspergillus niger, fusarium f.sp. mwlonogea and fusarium oxysporum f.sp. lycopersici
- Kills aspergillus niger and candida bacteria
- Kills parasitic protozoa
- Kills parasitic protozoa and its egg efficiently
- Neutralise smoke and toilet smells
- Remove paint smells

FACTORS WHICH AFFECT OZONE'S DISINFECTION ABILITY

- The concentration of ozone
- Temperature

At a temperature of 30°C-32°C the ozone disinfection ability is best.
In killing HA V and Coliform the best temperature is 10°C

HOW OZONE KILLS MICROORGANISMS

- Ozone can combine with amino acid and breaks the protein in these bodies
- Ozone destroys viruses by diffusing through the protein coat into the nucleic acid core, resulting in damage of the viral RN. At higher concentrations, ozone destroys the capsid or exterior protein shell by oxidation.
- In Gram negative organisms, fatty acid alkyl chains and helical lipoproteins are present
- Ozone may also penetrate the cellular envelope, directly affecting cytoplasmic integrity, disrupting any one of the numerous levels of its metabolic complexities

APPLICATIONS

WATER TREATMENT

- Ozone can effectively kill bacteria and viruses, and can remove the organic impurities in the water.
- It can remove odour and be used as a bleaching agent too.
- Chlorine is widely used in water treatment practice; it generates harmful substances such as chloroform in the process of treating water. Ozone will not generate Chloroform. Ozone is more germicidal than chlorine. It has been widely used in water plants in the USA and EU.
- Chemical Ozone can break the bonds of organic compounds to combine from new compounds. It is widely used as an oxidant in the chemical, petrol, papermaking and pharmaceutical industries.

FOOD INDUSTRY

- Because ozone is a safe, powerful disinfectant, it can be used to control biological growth of
- unwanted organisms in products and equipment used in the food processing industries.
- Ozone is particularly suited to the food industry because of its ability to disinfect microorganisms without adding chemical by-products to the food being treated or to the food processing water or atmosphere in which food is stored.
- In aqueous solutions, ozone can be used to disinfect equipment, process water and some food items and neutralise pesticides
- In gaseous form, ozone can act as a preservative for certain food products and can also sanitize food packaging materials.

- Some products currently being preserved with ozone include eggs during cold storage, fresh fruits and vegetables and fresh seafood.

MEDICAL

- Ozone has been used in hospitals and clinics as a disinfectant in China, Germany and other developed and developing countries.
- Ozone is more germicidal than formalin, acidum peroxyacetic and potassium permanganate.

HOME APPLICATIONS

AIR PURIFICATION		
APPLICATIONS	TIME	FUNCTIONS AND EFFECTS
Airtight room	10 minutes	Removes odour, tobacco smoke and particles in the air
Kitchen	10 minutes	Removes food preparation and cooking (onions, garlic and fish odour and smoke in the air)
Pets	10 minutes	Removes pets' odour
Cupboard	10 minutes	Kills bacteria and mould. Removes odour from cupboard
Carpets and furniture	10-30 minutes	Removes harmful gases such as formaldehyde emanating from new furniture, painting and carpeting

FOOD AND WATER

FOOD AND WATER		
APPLICATIONS	TIME	FUNCTIONS AND EFFECTS
Washing of fruits and vegetables	10 - 20 minutes	Dissolves and eliminates pesticide on the surface of fruits and vegetables. Kills bacteria on the surface of fruits and vegetables
Tableware washing	10 minutes	Kills bacteria on the surface of the tableware

Fish and meat washing	5-10 minutes	Eliminates the fishy odour. Kills the bacteria on the meat and fish
Water treatment	10 minutes (10kg)	Dissolves the organic impurities and bleaches the water. Increases the oxygen level in the water
Food preservation	5-10 minutes	Disinfects the food in the refrigerator. Extends fresh fruit and vegetable storage life in refrigerators and coolers. Keep the food fresh
Refrigerator deodorisation	10 minutes	Eliminates any odour in the refrigerator. Prevents odour and taste cross contamination of foods in refrigerators and coolers

HEALTH CARE

HEALTH CARE		
APPLICATIONS	TIME	FUNCTIONS AND EFFECTS
Bathing	15-30 minutes	Prevents diseases such as epiphyte from spreading
Laundry	20 minutes	Kills bacteria, eliminates any odour and bleaches the clothes
Children's articles	10 minutes	Disinfects nursing bottles and toys etc...
Oral Hygiene	5-10 minutes	Kills bacteria in the oral cavity diseases such as faucitis and stomatitis
Skin care	10-20 minutes	Kills harmful bacteria. Helps prevent or control many skin conditions. Helps accelerate the metabolism activity of the skin making skin healthier and fresher in appearance

OPERATING INSTRUCTIONS

- Plug into an earthed socket of the appropriate rating
- Connect the tube with the outlet of the unit and the ozone diffuser / air stone (Air stone is not required for air treatment)
- Turn the knob in a clockwise direction to indicate the working time according to the table mentioned. (The maximum working time is 30 minutes)

TECHNICAL SPECIFICATIONS

- Model: Aquazone H0me Ozone Generator 2
- Power Supply: AC220V-240V/50Hz
- Power Consumption: 18W
- Ozone Output: 500mg/hour
- Max Working Time: 30 minutes
- Weight: 1 kg
- Dimensions: 27cm x 16.5cm x 5.5cm
- Purifying area: 15-20 square meters



CAUTIONS

SAFETY CAUTIONS

- The unit should be mounted in a position where it is higher than water level, to protect from water backflow into the machine
- Do not put the unit in a smoky or damp place and avoid high temperature environments
- Handle with caution. Do not cover the air outlet
- Place the unit out of reach of children
- Keep the air tube clean and do not fold the silicon tubes
- Do not keep your eyes or nose close to the air outlet of the unit
- Keep the room well ventilated when purifying the air
- Stop using the unit if you feel dizzy after you have used it
- Do not drink ozone treated water until the process is completed for 5-10 minutes
- The safety level of ozone for people is about -ppm which is about the same as the level of ozone in nature
- It is normal if the silicon tube becomes white or yellow after using for some time
- Make sure the diffuser air stone is at the bottom of the vessel when treating water
- In water treatment, when the water is 20cm -40cm deep, ozone has a high dissolving ability.
- Disconnect the power cord when repairing or maintaining the unit



OPERATION CAUTIONS

Warning - the unit is operating at high voltage

Caution - handle and maintain caution

- Power requirement – AC220V/50Hz
- Operating at high voltage, do not attempt to disassemble by yourself
- Contact our service centre to change the broken cord or plug
- Unplug the unit and clean with a soft dry cloth
- Do not place the unit in a damp and high temperature environment
- Do not attempt to disassemble, repair or refit the unit by yourself

TROUBLESHOOTING DATA

- If ozone output is reducing, please check the following;
- The air tube is breached or folded. In the event of breaching and folding, please change the silicon tube or unfold it.
- If the air stone is clogged, please use a new air stone
- If working normally, but has no smell of ozone, please contact Biozone Manufacturing and a technician will assist with information or assess the unit.

TERMS AND CONDITIONS OF SERVICE

- One year / 12 months warranty for factory defects.

The following circumstances are not under warranty

- Attempt to disassemble or repair the unit by yourself
- The serial number sticker is to remain on the unit
- Damage caused by shipment or accident
- Damage caused by lack of maintenance
- Damage caused by not following the instructions
- Damage caused by improper repairing by unauthorised person
- After warranty period you will be charged for parts changed and labour
- The service, which is not included in warranty, will be charged according to stipulations

ACCESSORIES

The following items are in the box

- 1 x Aquazone Home Ozone Generator 2
- 2 x Air stones
- 2 x Silicon tubing
- 1 x Information and instruction manual

Notice: The manual is for reference only; any design or specification are subject to change without notice.