KNOW MORE ABOUT OZONE (FAQs)

1. What is Ozone?

Ozone is active or supercharged Oxygen. It occurs naturally high in the earth's atmosphere and protects us from the sun's cancer causing UV rays.

2. What are some uses of ozone?

Some common uses are: Drinking water Purification, Waste water treatment, Deodorising of smells, cooling tower water management, Swimming pool water management and most importantly Pollution and effluent treatment processes.

3. What are some valuable properties of Ozone?

Ozone sterilises, decolorises (removal of color) and deodorises (removal of odor).

4. How long has Ozone been known and used?

Ozone has been known since 1800's and been used in little applications before the 80's but more extensively in the 90's.

5. Has Ozone been used to treat Drinking water elsewhere?

Ozone has been applied in hundreds of water treatment applications in Europe (France, Germany, UK and USA and lately in Australia.

6. How is Ozone manufactured and can it be stored like Oxygen?.

Oznoe is manufactured from Air or Oxygen. Ther is very little or ono Ozone near the earths surface. the ozone protective layer is miles above the earth and cannot be accessed. Ozone cannot be stored like Oxygen. Because of the very high activity of ozone it is highly unstable. Ozone decomposes to Oxygen rapidly in minutes.

7. Does Ozone have any odor?

Ozone has a slightly sweet smell at very low concentrations but as the concentration increases it becomes irritating.

8. Will Ozone kill bacteria?

Yes Ozone kills all bacteria and is known to be the most effective bactericide on earth.

9. Will Ozone kill(deactivate) Virus?

Yes. ozone will deactivate virus by attacking the protein of the virus.

10. What about Amoeba cysts, spores and protozoans?

Ozone kills all forms of amoeba spores, cysts and protozoans.

11. How is ozone better than Chlorine?

Ozone has proven to be 3,500 times more powerful in killing bacteria than Chlorine. Unlike Chlorine which leaves unwanted residue and toxic byproducts, Ozone only leaves Oxygen after reaction. Therefore ozone is a better sterlilant than Chlorine.

12. What about UV systems?

UV rays will only disinfect the water by killing the bacteria that actually passes through the rays. The water must not be cloudy or with suspended matter. UV will not oxidise matter in the water or disinfect the vessel surface or air. The effect of UV depends entirely upon the age of the lamp which deteriorates rapidly. This deterioration is not noticeable unless the UV is measured or the water is checked for bacteria. Its bactericidal action cannot be measured immediately.

13. Do you mean that we can measure the disinfectant effect with ozone.

Yes. We can measure how much disinfection has progressed by measuring how much of the organic material that has been oxidised. If a certain level is reached we can guarantee that at that level there is no organic matter (eg.bacteria) and therefore sterile.

14. Does Ozone have any odour?

Yes. depending upon the concentration. The ozone produced after a thunderstorm is the sweet refreshing smell one is associated with. At slightly higher concentrations it is fishy and at very high concentrations like any other reactive gas it is pungent. This concentration is rarely achieved.

15. Will Ozone Kill bacteria?

Yes. ozone kills bacteria instantly on contact, unlike other disinfectants which must be absorbed and then poison the cell in time.

16. What about virus?

Yes. Ozone reacts with virus and breaks down the protein. Chlorine can only do the same in extremely high concentrations which will also affect humans.

17. Will Ozone kill protozoans, amoeba and cysts?

Yes. ozone will break down the cell wall and oxidise it. The cyst cannot protect itself from ozone.

18. Why do you say ozone is better than Chlorine?

Scientists have conducted comparative tests on the effect of Chlorine and Ozone on the most common faecal pathogen E Coli. Ozone is 3500 times stronger than Chlorine. This means you need 3,500 times less Ozone than Chlorine. Further Chlorine leaves unwanted residue or toxic byproducts after the reaction. Ozone will leave Oxygen only after reaction.

19. Will ozone change the taste of water?

No. Ozone will not impart any color or taste or odour to the water. In fact it will remove color and bad taste from the water.

20. Is Ozonated water injurious to health?

On the contrary, Ozoated water is beneficial to health. Drinking fresh ozonated water can destroy pathogens in the gastro intestinal tract, provide vigor and can solve a lot of health problems. Ozonated water is being pres cribed for internal use in naturopathy.

21. How long will Ozone last in the water?

The half life of ozone is about 22 minutes. Therefore Ozone dissipates to oxygen. However some residual Ozone can still be found after 10 hours in a closed system...

22. What can you say about UV systems?

UV systems kill bacteria on contact with the rays (ie. spot kill unlike Ozone which is a general kill). It cannot Oxidise water! Nor can it disinfect the vessel surface containers. Ultra Violet process is unpredictable. The UV lamps have a short life and their effeiciency cannot be easily checked even if the light is on.

23. What about the Chlorination method of treatment?

Chlorination has been accepted till lately as the safe method of water treatment. However as modem research has now shown, Chlorine reacts with various organics in the water to produce harmful and cancer causing chemicals. Though the concentrations may be small, the effects are accumulated so that the disease is cause many years later- that this is th e source will never be realised. Children are particulary sensitive to these carcinogens.

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