



### Ozone Facts

Ozone is the most effective disinfectant known. It kills 99.99% of all viruses, bacteria molds, mildew, spores, yeast, and fungus—instantly.

Ozone occurs in nature to purify the air we breathe. For more than 100 years ozone has been used in Europe to purify municipal water systems. It is now a preferred purifying treatment for most municipal water systems and bottled water facilities in the U.S.

The Center for Disease Control (CDC) recommends a supplemental water treatment like ozone to safeguard against harmful bacteria in public pools.

Outbreaks of illness caused by *Pseudomonas aeruginosa*, *E. coli*, *Staphylococcus aureus*, *Giardia* and *Cryptosporidium parvum* (Crypto) in public pools indicate that conventional chlorine treatments alone will not do the job. Chlorine resistant microorganisms have become more common over the past two decades. Ozone destroys these microorganisms instantaneously.

Ozone works well combined with chlorine. Ozone allows chlorine to do its work, but destroys the harmful byproducts of chlorine (chloramines) that irritate skin, eyes, ears & hair. Ozone destroys the offensive chlorine “swimming pool” smell.

Ozone reduces pool chlorine, pool shock and other pool chemicals by 60 to 90%. With such reductions, the negative effects of chlorine are virtually eliminated.

Ozone (O<sub>3</sub>) occurs in nature when oxygen (O<sub>2</sub>) is exposed to UV rays or lightning. The electrical charge adds an extra oxygen molecule (O<sub>3</sub>). Since 1893 scientists have learned to generate it for water purification uses. When O<sub>3</sub> (ozone) “bumps” into an impurity, the third oxygen molecule attaches to the microorganism/fat/oils/cosmetics/particles, etc. It opens up the cell wall and destroys it. The only by-product is O<sub>2</sub>—oxygen. There are no harmful chemical byproducts whatsoever.

Ozone clears up cloudy pool water by removing tiny particles that filters cannot capture. When ozone opens up the cell wall of an impurity, the impurities then clump together (coagulate). Then the filter can capture the impurities that were too small before ozone was introduced. The result is crystal clear, clean fresh water.

UV rays from UV sanitizers cannot penetrate cloudy water. UV sanitizers will work much more effectively when combined with ozone because of the crystal clear water that ozone produces.

Ozone keeps calcium under control, reducing scaling and softening the water.

Ozone solves Iron, Manganese and Hydrogen sulfide problems.

Ozone is important to use if salt chlorinators are present. Ozone decreases TDS and staining because less salt is used. Ozone also extends the life of the salt cell.

Ozone extends the life of equipment and plumbing, as it reduces costs of chemicals, labor and water usage.