

## What if I don't want to use Chlorine?

There are many benefits to having a non-chlorine pool and options available to help you do so. You will read many pros and cons about a non-chlorine pool.

Ultimately, the choice is yours in which system you choose to use.

There is a salt system that is said to be a non-chlorine system but since salt's chemical name is sodium chloride and sodium chloride is the raw ingredient to make chlorine this is just a smoke screen. You will experience the same problems with a salt system that you would incur in a chlorine pool: the red and burning eyes etc.

You also have the choice of a mineral cartridge system. This system uses cartridges that kill bacteria as the water passes through them. In order for the water to be continuously cleaned by this system your pump must remain running 24 hours a day and 7 days a week.

Ozone generators are another non-chlorine pool system choice. These generators kill bacteria by using ultra violet light. These units can be expensive. They are better suited for a spa or small pool because of their operating costs. Ionizers are a good choice for killing the bacteria in your non-chlorine pool, however they do not sanitize and you will have to use other chemicals to do so.

Some private, public, commercial, water-park and hotel pools have switched to Ozone technologies as people become more concerned about chlorine and chlorinated by-products. Other than the issue of carcinogens and other health problems, what are the relative benefits of Ozone vs. chlorine?

One of the main problems with adopting Ozone is that there is a higher initial capital cost to the swimming pool compared to chlorine. However, over the life of the pool Ozone and ultraviolet technologies reduce the on-going operating and maintenance costs. These costs can be significant. Chlorine is famous for destroying pool infrastructures, rusting out ventilation systems and destroying pool liners etc. Ozone poses no such problems.

The Ozone pool will be much cleaner, which means dirt, grease, oils, organics and other materials will wind up in the filter system much faster than with chlorinated systems. If the filter and strainer maintenance is not stepped up accordingly, the pool re-circulating system will slow down and the pool will actually look dirtier than with Chlorine. However, proper maintenance of the filter system will solve this problem.

What is the difference in technologies? Chlorine is a complex man-made chemical that found original use in the infamous "mustard gas" of the First World War. Ozone has been in use for over 100 years, primarily in Europe and was first put to use for water purification, odour control and in medical hospitals.

Ozone is made from Oxygen or O<sub>2</sub>, which is converted through electricity to Ozone or O<sub>3</sub>. Ozone is a much more powerful oxidant than chlorine. However, the "shelf life" of Ozone is limited. It must be manufactured and used on-site. This is done through Ozone Generators which convert Oxygen in the air into Ozone.

As well, Ozone is considered a "short-term" sanitizer and chlorine is considered a "long-term" sanitizer. Chlorine is also an entrenched technology. It has been widely used in North America and was first adopted at the turn of the century. It is still the reigning champion of sanitizers and has many supporters in the chemical and swimming pool industries.

Other options for a non-chlorine pool would be polymeric biguanide chemicals. These chemicals are very expensive but they do provide a higher quality of water than what chlorine systems do. This also can be more time consuming since it has to be added manually to the pool.

The best know polymeric biguanide is polyhexamethylene biguanide (PHMB) but for the purposes of this article we'll call it Baquacil. Baquacil keeps the water sanitised but it needs help from BaquaCheck and BaquaShock. BaquaCheck is an algacide and BaquaShock is 36% Hydrogen Peroxide solution used as a shock treatment to break down bather waste.

Baquacil is totally incompatible with chlorine and before you use it you must get all of the chlorine out of the pool. Likewise if you change your mind and go back to Chlorine you must get all the Baquacil out. You can't use persulphates with Baquacil either.

Like all non-chlorine alternatives it is expensive and has its own rather tricky testing system. It is not a popular system in this country and is not without its critics, particularly in the USA, but those that do use it seem to love it.

Hopefully this article has given an insight in to the various ways of cutting down or eliminating Chlorine from your pool. Non-Chlorine alternatives cost more and require more maintenance but we think it is worth it for the improved water quality.

Please check out our other guides for more help and advice for your swimming pool or spa or if you have any questions then feel free to contact us.

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