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FAQs – Water Treatment

What is water balancing?

Water balancing is the adjustment of chemicals in the water to recommended levels of pH, water hardness and total alkalinity. Water should be balanced each time it is changed and monitored and adjusted periodically. Unbalanced water can cause corrosion and etching of pool surfaces and lead to a build up of salts or scale formation on equipment and pool surfaces. It can also lead to some personal discomfort.

What is the pH scale?

The pH scale identifies the level of acidity or alkalinity of water. Water that is either too acidic (low value) may cause personal discomfort and lead to corrosion. Water that is too alkaline may reduce the effectiveness of chlorine sanitizers and lead to cloudy water conditions and scaling of surfaces. The pH range between 7.2 and 7.6 is recommended.

What is water hardness?

Water hardness is the measurement of calcium in water. Most New Zealand waters are too soft and are improved when a water hardener, such as Calcium Chloride, is added. The recommended range is 150-300 parts per million.

What is total alkalinity?

The amount of carbonates and hydroxides dissolved in water is referred to as total alkalinity (TA). The ability of water to resist changes in pH, and hence be most effective for comfort and sanitation, is influenced by its TA. The TA range of 80-150ppm is recommended to maintain optimal "buffer" properties.

What is water purification?

Water purification or sanitising refers to the disinfecting of water by killing bacteria and controlling algae growth. This is important so that the water is both safe and comfortable for bathing.

The most common water purification processes for spa pools is the use of spa chlorine or bromine tablets. Both of these processes offer continuous sanitation by virtue of the amount of residual chemicals maintained in the water.

Non chemical processes of ozone and oxygen shock are popular, usually in conjunction with some use of bromine tablets.

What is Spa Chlorine or Dichlor?

Chlorine, in its unstabilised form, is an active sanitizer. Dichlor (often referred to as spa chlorine) is the stabilised form and allows residual chemicals to be maintained for some time. Dichlor is a water-based chemical sanitizer that kills bacteria by oxidising, comes in a powder form and is usually added after bathing. Its active ingredient is sodium dichloroisocyanurate. It is recommended that 'Free Chlorine' is maintained in the 3-5 ppm range.

What is Bromine?

Bromine is another water-based chemical sanitizer that kills bacteria by oxidising. It contains both chlorine and bromine and comes in a tablet form. Bromine tablets are slow release and therefore need a floater or feeder system for efficient dispensing. Bromine does not produce the same odour or irritation effects that chlorine can and is effective over a wider pH range. Maintenance of residual bromine at 4-8 ppm is recommended. Bromine can tend to be a more expensive process than Dichlor.

What is Ozone?

An ozonator may be used to reduce reliance on chemical sanitizers. See our website page "Ozone & Spa Pools" for more information. Ozone is a naturally occurring purifier. The use of ozonators in spa pools as a means of purifying water, with much less dependence on chemical sanitizers, is increasingly popular.

What is Oxygen Shock?

Oxygen shock is a non-chlorine sanitizer that has strong oxidising powers. It is highly effective in oxidising organic contaminants in a relatively short time. It is particularly useful as a shock treatment where water is in urgent need of attention. However, it does not have any residual properties and does not provide a continuous sanitation safeguard between doses. The active ingredient is potassium peroxymono-sulphate and pools dosed with Oxygen Shock may be used after 15-20 minutes.

How do I check for residual sanitation and water balance?

Water can be easily checked with special purpose test strips and the process takes just a few seconds. These test strips check for both water balancing and residual sanitation capacity. If additional chemicals are recommended you simply add them and then retest..

I may be allergic to chlorine, what can I use instead?

Some people may be allergic to chlorine which shows up as a rash in sensitive areas. Bromine tablets are a popular alternative but they still contain some chlorine. Oxygen shock is effective if used regularly and bathing use monitored. Use of an ozonator is a more expensive but popular option.

What is that strong smell that is sometimes apparent around pools?

The odour is usually attributed to chloramines being formed as a by-product of the normal sanitizing process. Most often this occurs when insufficient "free chlorine" remains in the water and is easily remedied by a shock dose (2-3 normal amounts) of spa chlorine or oxygen shock.