# Crystal Water – Pool Care System

# Pool Maintenance tips – A Chlorine Free product

## Shock dosing a pool – Why Shock, with what and when?

**Crystal Water H2ok** provides the perfect basis for a pool care system. However an additional chemical treatment – called a shock dose – is required from time to time to keep the pool looking crystal clear.
This "shock dose" is needed to cope with an increase in pool usage and to burn out any wind-blown debris.

To swim chlorine free, we recommend the use of **Crystal Water O2 Shock.** Applied at the rate of 300 grams/10,000 litres of pool volume. However, a fast acting chlorine compound can also be used in a pool. A typical chlorine **"shock dose"** is Crystal Waters Dichlor at the rate of 200 grams/10,000 or liquid chlorine at 1 litre/10,000 litres of pool water

A pool should look crystal clear at all times. To achieve this, we recommend that a pool be shocked on a regular monthly basis. However, if the pool looks a little cloudy or excessively dirty, particularly after a period of high use the pool may require an additional shock dose.
**Note:** Any chemicals added to a pool should only be attempted when the pool pump is operating and the water mixing and circulating. It is usual (and recommended) to add chlorine directly into the skimmer and only when the pump is running. The pump should continue to run, circulating the water, for a further 30 minutes to allow for good mixing of any chemicals added

## PH monitoring

The **Crystal Water H2ok** doesn't alter the pH of the water it is added to but it is good practice to check the pH on a monthly basis and maintain the pool water between 7.2 and 7.4. The pH would change if a chlorine shock treatment is used.

## Filter operating and maintenance

For a pool to look and feel good, the filtration system must be operated every day. During summer, the filter should be used for a minimum of 8 hours every

160 Plunket Avenue, Wiri, Auckland ● P.O. Box 76-474, Manukau City 2241, Auckland, New Zealand
Phone 0-9-262 3902 ● Fax 0-9-262 3948 ● Emal orders@spaceindustries.co.nz
Website www.spaceindustries.co.nz

day, swimmers or no swimmers. During winter, 2 hours each day is acceptable.

For sand filters to work effectively, the sand must be changed every 2 – 3 years. New sand is sharp and angular and it filters well. Old sand is rounded and is a poor filter.

## Converting an existing pool from Chlorine to Crystal Water H2ok and O2 Shock

Physically remove all dirt, debris from the pool and brush the poolsides.

With the pump and the filter operating, add the **"shock"** dose of chlorine into the swimmer – liquid chlorine is recommended, although all fast acting chlorine donors are acceptable. Check the pH and adjust so it is between 7.2 and 7.4. Hydrochloric acid (HCI) is the preferred pH decrease agent. However, the use of sodium bisulphate as a pH decrease is acceptable.

Continue to run the pump and filter for 24 hours, monitor the pressure gauge for correct operation and periodically backwash the filter. If the filter sand hasn't been changed for two to three years – now is the time to change it. Once the pool is fresh, clear and as clean as possible, then add the correct dose of **H2ok**, while the pool is running.

## Maintenance Tips - Testing a Pool

It is important to monitor the quality of your pool on a regular basis. A regular visual inspection can be done by using the Aquacheck Biguanide test strips.

- Biguanide tests the levels of H2ok and the other tests for Total Alkalinity and pH.

## The Ideal water chemistry for a Swimming Pool

**Alkalinity** – between 30 and 90 parts per million (ppm). Note: 170 grams of buffer (sodium bicarbonate) per 10,000 litres of pool water will increase alkalinity by 10ppm

**PH** – between 7.2 and 7.4

**Calcium hardness** – typically no additional calcium is required except for concrete walls

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## Common Pool Problems can arise from:

- Inefficient pump and filter operation – probable causes are mentioned above in the filter operation and maintenance but other contributing factors include, no sand filter, incorrect filter size, low pump flows due to the use of pool cleaning equipment and poor pipe layout. Inlet and outlet pipes too close together give poor water circulation resulting in filtration problems.

- High pH – for a pool to operate efficiently, the pH must be maintained between 7.2 and 7.4. If using chlorine shock treatment this pH range will give a maximum performance and ensure eye irritation does not occur. A high pH results in scaling while a low pH results in corrosion.

- Insufficient use of Shock dosage – a shock dose is required monthly throughout the year, or on demand depending on the pool usage. Increase the shock requirement as temperature increases, swim loading increases or as dirt and debris comes into the pool

## Pool Cleaning Tips

Absolutely no soaps, detergents or cleaners should be used in or around the pool. This especially applies when preparing the pool for re painting. For pool cleaning – use **liquid chlorine** (sodium hypo chlorite). For cleaning around the watermark area of the pool use **pH Decrease** (sodium bisulphate) on a rubber glove and use a scouring action on the stain.

## Algae and Black Spot

Crystal Water will treat all algae commonly found in the pool around New Zealand, including the resistant Black Algae. Resistant Black Algae is more commonly found in pools that have a roughened surface. It occurs in heated pools and in areas near forests. Black Spot can also occur from cobalt compound staining. Experience has shown that Crystal Water helps control this chronic problem.

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