

## Pool Maintenance Tips

### A Chlorine free Product

Crystal Water H2 Ok 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 your swimming 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 per 10,000 litres of pool water. However, a fast acting chlorine compound can be used in a swimming pool. A typical chlorine shock dose is Crystal Water Dichlor, which is used at the rate of 200 grams per 10,000 litres or Crystal Water Liquid Chlorine, at 1 litre per 10,000 litres of pool water.

A swimming 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 swimming pool should be attempted only 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 hour to allow for good mixing of any chemicals added.

### pH Monitoring

The Crystal Water H2 OK doesn't alter the pH of the water but it is good practice to check the pH on a monthly basis and maintain the level between 7.4 and 7.6. The pH would change if a chlorine shock treatment is used.

### Filter Operating and Maintenance

For a pool to look good and the bathers to enjoy comfortable water conditions, the filtration system must be operated every day. During the summer, the filter should be used for a minimum of 8 hours everyday, swimmers or no swimmers. During winter, the filter should run for at least 2 hours each day.

For sand filter 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 H2 Ok and O2 Shock

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

With the pump and the filter operating, add the shock dose of chlorine into the skimmer – Liquid Chlorine is recommended, although fast acting chlorine donors are acceptable. Check the pH and adjust so it is between 7.4-7.6. Hydrochloric Acid (HCl) is the preferred pH decrease agent. However, the use of Crystal Water pH Decrease (Sodium Bisulphate) is also 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 2-3 years, now is the time to change it. Once the pool is fresh, clear and as clean as possible, add the correct dose of H2 OK (while the filter is running).

### Maintenance Tips – Testing

It is important to monitor the quality of your pool water on a regular basis. A regular visual inspection can be done by using the AquaChek Biguanide Test Strips. Biguanide tests the levels of H2 OK, along with Total Alkalinity and pH.

### The Ideal Water Chemistry for a Swimming Pool

- Alkalinity – between 30-90 parts per million (ppm). Note: 170g of pH Buffer per 10,000 litres of pool water, will increase alkalinity by 10ppm
- pH – between 7.4-7.6
- Calcium Hardness – typically no Calcium Hardener (Calcium Chloride) is required, except for concrete pools

### Common Pool Problems

- 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 7.4-7.6. If using chlorine shock treatment, this pH range will give a maximum performance and ensure eye irritation does not occur. A high pH will result in scaling, while a low pH, will result 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, and/or as dirt and debris come 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 Hypochlorite)
- For cleaning around the watermark area – use pH Decrease (Sodium Bisulphate) on a rubber glove and use a scouring action on the stain

## **Algae and Black Spot**

Crystal Water Pool Kleer 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.