

A BASIC GUIDE TO

SPA POOL

TREATMENT



Spa Pool Chemical Treatment

Regular water maintenance is an excellent habit to form from the first use of your spa pool. Keeping on top of your water maintenance and correct use of your filtration and cleaning settings has the potential to significantly reduce the amount of chlorine you need to add to your spa. To ensure a well-balanced and correctly sanitized spa pool it is vital that you have a test kit capable of undertaking the following water tests

- **Free Available Chlorine**
- **pH**
- **Total Alkalinity**

These tests give the spa operator the information needed to maintain a well-balanced and clean spa pool. Water hardness levels are also important, but not tested for with standard test kits, it may be necessary to increase soft water hardness levels using Spa Master Water Hardener. Calcium hardness relates to the levels of minerals in the water. If the level is too low, the water will eat away at anything possible to get the needed minerals. If the mineral level is too high, scaling or calcium deposits will form.

Recommended Water Quality Criteria

Criteria or Test	Recommended Result	Most Desirable Level
pH	7.4 – 7.8	7.5
Free Chlorine	3 ppm – 6ppm	3.5 ppm – 4 ppm
Total Alkalinity	80 ppm – 120 ppm	100 ppm
Calcium Hardness	80 ppm – 100 ppm	80 ppm

Note:

- ppm – parts per million as shown on your test kit
- Avoid testing immediately after a chlorine shock dose as high chlorine levels can alter test kit accuracy

Water Testing

pH and free chlorine levels should be tested and adjusted prior to and after use. This can be carried out using a simple dip strip test or a tablet or dropper test kit. After the addition of spa chemicals, allow one spa pool turnover (10 minutes of filtration time) to mix in the spa water.

Shock Dosing Treatment

Where a spa pool is under continuous heavy loading, a minimum free available chlorine level of 3 ppm should be maintained at all times. However, if the following occurs, shock dose with enough chlorine to provide 10 ppm free available chlorine.

- **Loss of clarity**
- **No chlorine reading for extended periods**
- **After heavy loading**
- **Presence of chlorine aroma (indicates high chloramines)**
- **Change of water colour**

Spa Pool Loading

- The number of uses per day

Spa pools can have heavy loading due to the comparatively small water volume and large number of bathers per day. If the spa pool water is not treated correctly, considerable numbers of disease producing and other microorganisms will accumulate, particularly in the surface layer of the water. Loading factor is also compounded by:

- The close proximity of bathers in the spa pool which could allow the transfer of germs from a carrier to another person sitting next to the carrier. Consequently, there is only a short period of time in which to sanitize the water.
- The warm temperature of spa water promotes bacterial growth
- The fast transportation of germs throughout the spa because of rapid water movement

It is therefore evident that the proper chemical treatment and efficient filtration must work together. The filter should operate for a minimum of three hours each day.

Change of Water

Water should be changed a minimum of every six to twelve weeks in private spa pools. Every six weeks is recommended for heavy loads, twelve for lighter use. The filter cartridge should be cleaned every 4 weeks with **Spa Master Cartridge Cleaner**. Changing the water is the only way to remove finely dissolved solids. Spa pool water should be changed if the following cannot be resolved with shock dosing

- Loss of clarity
- Presence of Aromas
- Change in water colour

Recommended Treatment Procedures

- Fill spa to slightly above the recommended line or where the skimmer operates most effectively.
- Test for total alkalinity and adjust with **Spa Master Alkalinity Up** (125g will raise total alkalinity approximately 80 parts per 1000L of spa water).
- When total alkalinity has been adjusted to 120 ppm, test and adjust pH to 7.5. Use **Spa Master pH Decrease** to lower (30g per 1000L will decrease reading by 0.6 parts) or **Spa Master pH Increase** to raise (30g per 1000L will increase reading by 0.6 parts).
- Depending on test reading, at start up, add **Spa Master Water Hardener** (100g will raise water hardness approximately 80 parts per 1000L of spa water).
- Add **Spa Master Spa Sanitizer** at a rate of one heaped teaspoon per 1000L of spa water at a time, testing between additions. Repeat process until a chlorine reading of 8-10 ppm is achieved.

If chemical changes have been made, allow one spa pool turnover for chemicals to mix. A 1000L spa will take approximately 5 minutes to turnover.

The spa pool has now been shock dosed. When the chlorine level has dissipated to a level of 5 ppm the spa pool is ready to use.

The chlorine level should not be allowed to drop below 3 ppm while the spa is in use.

Depending on the size of the spa pool, filtration cycles will vary. Most spas will require a minimum of 3 hours of filtration a day. Every spa pool varies for one to another regarding chemical demand. You will become accustomed to your own spa and know what quantities of chemicals are required to make necessary adjustments.

Spa Master Chemicals



Super Chlor

An effective and convenient aid to prevent growth of bacteria and algae.



Bromine

A dissolving product suited to spa pools. Sanitizes bacteria and algae.



Water Hardener

Used to raise the water hardness level to help prevent the corrosion of pump and heater parts.



Oxygen Shock

Removes odors and oxidises organic contaminants with an effervescent water clearing action.



pH Decrease

pH is a scale measurement of the acidity of the water. 7.2 – 7.6 is the range in which chlorine is most effective as a sanitizer.



Spa and Pool Clarifier

Use when your pool is balanced but not sparkling or to remove mild cloudiness from your spa.



Alkalinity Up

Alkalinity is a measure of the water's ability to absorb pH balance.



Cartridge Cleaner

A concentrated cleansing solution for the removal of dirt, oil, body fats, grease and film from filter cartridges and bag filters.



pH Increase

pH is a scale measurement of the acidity of the water. 7.2 – 7.6 is the range in which chlorine is most effective as a sanitizer.



Defoamer

Breaks down foam caused by introduction of soaps, and air agitation of body fats and oils.



Spa Master Chemical Spa Pack

Complete chemical pack to suit your spa pool requirements.



Spa Kleen

A concentrated cleansing solution for your pipes, jets and pumps