

Instructions

for sanitising our Softubs

220 (4/5 berth) and 330 (6/7 berth).

As produced by Hottubsforhire.co.uk, in conjunction with Easy Chemicals Ltd

This guide is provided to ensure your hot tub hire is a safe and enjoyable experience. Please take the time to read this information fully.

WARNINGS:

ALWAYS READ PACK INSTRUCTIONS BEFORE DOSING HOT TUB CHEMICALS.

NEVER MIX CHEMICALS IN THE DRY STATE OR IN CONCENTRATED SOLUTIONS.

CHEMICALS MUST BE DOSED SEPARATELY, AND IN THE DOSES AND CONCENTRATIONS RECOMMENDED.

ALWAYS PRE-DISSOLVE GRANULAR PRODUCTS IN WARM (NOT HOT) WATER FROM YOUR HOT TUB.

WHEN PREPARING A SOLUTION, ALWAYS ADD THE CHEMICAL TO THE WATER, NEVER THE WATER TO THE CHEMICAL.

ALWAYS USE PERSONAL PROTECTION EQUIPMENT (PPE) WHEN HANDLING CHEMICALS.

The importance of Chlorine (sanitiser), pH, Total Alkalinity (TA) and Oxy Shock.

The most important item you will add to the hot tub is **Chlorine** ('sanitiser') - a treatment agent which will eliminate bacteria and other micro-organisms which would otherwise contaminate your water. The sanitiser we supply, releases low levels of chlorine into your hot tub. Chlorine levels should be kept between 2 – 4 ppm (parts per million) at all times. Chlorine can be easily adjusted using chemicals in granular form – called **Stabilised Granular Chlorine**

It is important to control the overall 'balance' of the water to ensure that chlorine can work to best effect.

pH is just a measure of the acidity or alkalinity of the water. The best pH balance to allow chlorine to work properly is between 7.2 and 7.8, which is slightly alkaline. This is the same as the pH of your skin and eyes, so it is also important also to keep the pH in range to keep the water in your hot tub compatible with these delicate tissues. Chlorine works within a rather narrow **pH range**. The further the pH falls below pH 7.2 or rises above 7.8, the more the effect of the chlorine is reduced. Fortunately, pH is easily adjusted using simple chemicals in granule form – called **pH Reducer** and **pH Increaser**.

Total Alkalinity (TA), is the measure of all the alkaline material in your hot tub water. Maintaining the right levels of TA will make pH levels far easier to maintain, which in turn will allow chlorine to work at its maximum efficiency. Levels should be between 100 and 200 ppm. Please note: High TA **IS NOT THE SAME** AS HIGH pH. TA levels are adjusted using chemicals in granular form – called Alkalinity Increaser (for treating low TA) and pH Reducer (for high TA).

As the chlorine does its job it tends to form waste products called **chloramines**. If untreated, these loose particles will turn the water cloudy and give the water a 'stale' odour. These are easily eliminated by daily 'shock' treatments with an agent called **Oxy Shock**.

Usage

As you use the hot tub, the pH and TA might drift out of the correct range, and the chlorine will also be used up, this is because the bather load is very high in relation to the volume of water (unlike a swimming pool.) For your comfort, health and safety, you **MUST** therefore check the pH, TA and Chlorine levels in your hot tub every day, and before, and after every session. Treat as required. Simple tests will help you to decide what chemicals should be added, and we give easy dosing advice throughout this guide and on all of our product containers. Please take the time to read the information provided.

We will supply adequate quantities of the various products you will need to keep your hot tub water in good condition.:

3-way Pool & Spa Test Strips	pH Reducer	pH Increaser
Total Alkalinity Increaser	Stabilised Granular Chlorine	Oxy Shock

Water balance is simple and easy to do.

Please note. The pH should always be kept between 7.2 - 7.8, chlorine levels, between 2 – 4 ppm (parts per million), and Total Alkalinity between 100 - 200 ppm.

The doses recommended below are all correct for our 4 berth (220 Gallons) and our 6 berth (330 Gallons) Softubs. Our hot tubs can be used immediately after dosing with ANY of the treatment chemicals we supply. However, you should **NEVER** add any chemical to your hot tub while bathers are actually using it.

Note: measuring chemicals. One heaped teaspoonful of hot tub chemicals is equivalent to about 4 grammes: if you carefully run a straight edge (eg. a metal knife) across the teaspoon (making sure you catch the excess chemical in the original container !), the weight will be around 2 grammes.

Step 1: Test the hot tub water for pH, chlorine and Total Alkalinity **every** day or before and after **every** session. Take a single test strip from the pack, and dip it in the hot tub water, so that all of the little coloured blocks are fully immersed; gently move the strip about in the water for a second or two; remove it from the water after 15 seconds and shake it once to remove excess water. Then compare the colour you see in the little blocks with the colour reference chart printed on the side of the test strip container. Choose the colours in the chart which most closely match the colours you see on the strip – this will give you a reading for each of the key items you need to check each time – pH, chlorine and Total Alkalinity.

Step 2: If the Total Alkalinity is **too high**, reduce it by adding Total Alkalinity Increaser; if the TA is **too low**, adjust it by adding pH Reducer in one single spot in the hot tub, with the pump and jets switched off. High TA is much less of a problem than low TA. . If your Total Alkalinity is too low, the hot tub water can cause eye irritation, and it can also corrode some of the hot tub components. On the other hand, if the Total Alkalinity is too high, this can lead to scale deposits on the hot tub.

A TA reading between 100 ppm – 200 ppm is fine. If you get a low reading, for each increase in TA of 10 ppm, measure 20 grammes of Total Alkalinity Increaser into a jug of warm water from your hot tub, stir to dissolve, then pour the solution directly into the tub.

Let's take an example; your TA reading from the test strip is 80 ppm, which is a little low. Aim for a target figure of 150 ppm, which will require a dose of 7 times 20 grammes (ie. 140 grammes), since you need to increase the TA by 70 ppm (7 times 10 ppm) in total.

If your TA reading is **above 200 ppm**, this will need to be reduced. The treatment agent for reducing TA is **pH Reducer**. If you need to reduce your TA, first switch off the recirculation pump and jets, and allow the water to stand for a few minutes. To reduce the TA by 10 ppm, measure 2 grammes of pH Reducer into a jug of warm water from your hot tub, stir to dissolve, then slowly pour the solution directly into the tub, **in one specific spot, where the water is deepest**. The trick with TA reduction is to let the hot tub stand for at least an hour after dosing.

Again, let's take an example; your TA reading from the test strip is 240 ppm, which is a little high. Aim for a target figure of 150 ppm again, which will require a dose of 9 times 2 grammes (ie. 18 grammes) of pH Reducer, since you need to reduce the TA by 90 ppm (9 times 10 ppm) in total.

Just remember – TA is **increased** by adding Total Alkalinity Increaser, and **reduced** by adding pH Reducer.

pH is adjusted by adding pH Increaser or Reducer. **The target for pH is 7.5**. To increase the pH by 0.1 of a unit, measure 5 grammes of pH Increaser into a jug of warm water from your hot tub, stir to dissolve, then pour the solution directly into the tub.

Let's take a worked example again: your pH reading from the test strip is 7.0, which is a little **low**. Aim for a target figure of 7.5, which will require a dose of 5 times 5 grammes (ie. 25 grammes), since you need to increase the pH by 0.5 of a unit in total.

Now, let's say your pH reading from the test strip is 8.2, which is a little **high**. Aiming again for a target figure of 7.5, you will require a dose of 7 times 5 grammes (ie. 35 grammes) of pH Reducer, since you need to reduce the pH by 0.7 of a unit in total.

Please remember. The pH should always be kept between 7.2 - 7.8, chlorine levels should be kept between 2 – 4 ppm (parts per million), and Total Alkalinity between 100 - 200 ppm.

Step 3: You should only add Stabilised Granular Chlorine **after** you have adjusted the pH and Total Alkalinity. Levels of chlorine should be between 2 -4 ppm. The dose required will be very small, because chlorine is extremely powerful.

For each stepwise increase of 1 ppm in your chlorine level, just add 1.25 grammes of Stabilised Granular Chlorine to the hot tub.

Again, let's take an example; your chlorine reading from the test strip is 1ppm, which is too low. Aim for a target figure of 4 ppm, which will require a dose of 3 times 1.25 grammes (ie. 3.75 grammes), since you need to increase the chlorine concentration by 3 ppm in total. It is important not to add Stabilised Chlorine Granules until you have made sure that the pH and Total Alkalinity have been adjusted to their proper levels. We recommend that a minimum level of 2 ppm free chlorine be maintained at **ALL** times.

Warning. Do not exceed a level of 5 ppm (parts per million) for chlorine.

If you accidentally overdose the hot tub with chlorine, don't worry – chlorine is consumed quite quickly in a hot tub, and the level will fall fast, especially if the thermal cover is removed and the water exposed to natural daylight. However, if you *really* overdose the hot tub with chlorine it may have to be part-drained and refilled. Remember it is far easier to add a little more than to take away a lot.

Step 4: As the chlorine sanitiser does its job, there will be a build up of suspended particles (chloramines). This process is what turns your water cloudy. High chloramines levels can give the water an unpleasant odour and can irritate or sting the eyes. However, it's easy to get rid of this by regularly 'shocking' your hot tub with a special treatment agent. The product we use is called Oxy Shock. With the pump running on high speed, just add 6.25 grammes of Oxy Shock to the hot tub every day. As always, pre-dissolve the Oxy Shock in a jug of warm water from your hot tub.

IF YOU REQUIRE ANY FURTHER ADVICE, CALL US ON 0800 542 4026

or email usenquiries@ hottubsforhire.co.uk

PLEASE ENJOY !