



Using Spa Solution® as a Supplement to a Chlorine or Bromine Program

If you want to continue using a chlorine or bromine program in your hot tub maintenance, either in your start-up kit or your existing spa/hot tub regimen, and use Spa Solution® as a supplement to enhance the water quality, you will find that the consumption of chlorine/bromine will be slowed because Spa Solution®, continually, does the 'heavy lifting' in ridding the hot tub water of contaminants, leaving a lesser amount of work to be done by the sanitizer. Health Canada suggests 2-5 ppm with an ozonator and 3-5 ppm without. With Spa Solution, use the lowest setting for your configuration. (Note: a level of over 5 ppm of sanitizer may begin to degrade the enzymes and is less suitable for the human body).

Spa Solution® Works for 90 days with each application

Enzymes continually work in eliminating organic contaminants in the water. *Enzymes are not destroyed when they contact and eliminate the contaminants.* Spa Solution® enzymes will last three months in the hot water, before requiring regeneration.

Chlorine and bromine, on the other hand, are destroyed in the process of eliminating contaminants. Therefore, you must constantly replace the chlorine or bromine which adds additional CYA (stabilizer) to the water. You should note that there is a larger amount of CYA contained in chlorine and bromine tablets than in the granular form. This build-up of CYA will reduce the efficiency of chlorine or bromine as the stabilizer amounts increase over 50 ppm

Spa Solution® Enzymes work better in Hot Water

Broad Spectrum Enzymes, which are found in Spa Solution®, are designed to work in higher water temperatures. The minimum temperature for Spa Solution® effectiveness is in the range of 84 degrees F (29 degrees C) to 104 degrees F (40 degrees C). They will not break down in temperatures under 180 degrees F (82C). Of course, we recommend that hot tub water not exceed 104 degrees F (40 degrees C).

Chlorine Life is Reduced with Higher Water Temperatures

Chlorine sanitizers are designed for cooler water temperatures as found in swimming pools. Experience shows that pools operating at 80 degrees F (26.6 C) or more, required increasingly more chlorine than at temperatures of 72 – 78 degrees F (22 -26 degrees C).

Hot tubs generally operate at 100 – 104 degrees F (38 – 40 degrees C) and the warmer temperatures break down the chlorine. In addition, body oil and sweat contaminants are increased so that it puts a heavier load on the chlorine usage.

Spa Solution® performs best at hot tub water temperatures and will *continually* manage the greatest volume of contaminants.

Bromine has a higher tolerance for warmer waters than chlorine.

Spa Solution® Enzymes have an Effective pH of 7.8 to 8.0

When introduced to balanced hot tub water, Spa Solution® will drive the pH to a level of 7.8 to 8.0 (Hamilton Index) which is higher than the suggested 7.2 to 7.6 pH level of the Langelier Scale that is most effective for chlorine or bromine. However, since Spa Solution® will provide the greatest part in the destruction of contaminants, chlorine and bromine are still adequately effective against bacteria and viruses, even at the higher pH levels.

The more important water balance measures are Alkalinity and Total Hardness which affect pH bounce and scaling in the hot tub.

Additional Benefits of Using Spa Solution® in a Chlorine or Bromine Regimen

- Reduces the amount of time maintaining hot tub water balance.
- Spa Solution® continually cleans the biofilm from plumbing where bacteria hide and thrive. Although it will not directly kill bacteria, Spa Solution® continually removes contaminants that may otherwise encourage bacteria growth.
- Because it's not a harsh product, Spa Solution® protects joints and seals in piping and equipment.
- Spa Solution® reduces the amount of CYA (stabilizer) in the water which is the main reason for having to dump spa water every three months. Dumping spa water in cold temperatures can be a problem and unacceptable in drought areas. With Spa Solution®, draining a spa can be done at six-month intervals.
- Excellent for absentee spa/hot tub owners.
- Reduces skin sensitivity to harsh chemicals.
- Spa Solution® is environmentally friendly for both the planet and the body.
- Using Spa Solution® gives the spa user a luxurious feeling both during and after the session.

Spa Solution® will provide an enhanced experience of owning a hot tub with less water maintenance, cleaner hot tub water, and a more luxurious feeling during and after the hot tub session.

For more information go to our website: www.spasolution.com



Spa Solution® Effective, Luxurious Hot Water Maintenance