



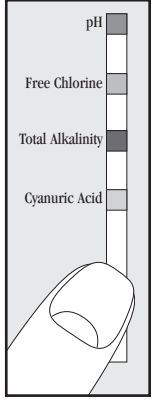
## Basic Pool/Spa Water Chemistry

AquaChek® Yellow is a test for Free Chlorine, pH, Total Alkalinity and Cyanuric Acid. The test pads on the strip change color to indicate the levels in your pool or spa water. Be sure to snap the lid securely closed on the AquaChek bottle immediately after dispensing a strip. This will prevent strips from spilling and keep them fresh. **Store the strips in a cool, dry place, and leave the packet of drying agent in the bottle—it will keep the test strips at their best.**

This insert provides some basic information about water chemistry. The water treatment tables will help you use your test results to adjust your water properly.

**WARNING: Exercise extreme caution when handling chemicals.** Do not add chemicals when swimmers are in the water. Never store acids and chlorine compounds next to each other. Never mix chemicals together; add chemicals to the water one at a time. Handle acid very carefully. Wear protective eyewear and keep material away from children. **Always follow the chemical manufacturer's directions.**

**To keep your pool at its best, test at each end a minimum of twice a week, and test your spa before each use. It's also a good idea to write down your results each time you test.**



## pH

pH refers to the intensity of acid or alkaline materials in your water. If pH is too high, scale can form on surfaces in contact with the water. If pH is too low, metal parts will corrode. Adjust Total Alkalinity before adjusting the pH; this will help prevent sudden fluctuations in pH.\* When the pH is too low, add soda ash. When it is too high, add an acid. (See tables below.) For more detailed advice on the specific chemical treatment for your pool or spa, contact your dealer.

Raising pH with Soda Ash (Sodium Carbonate) (When pH is under 7.2, add the amount of soda ash indicated below, then retest)					
pH Level	Pool Volume				
	1,000 gal. 3.8 kL	5,000 gal. 19 kL	10,000 gal. 38 kL	15,000 gal. 57 kL	25,000 gal. 95 kL
7.0 – 7.2	3/4 oz. 21.3 g	4 oz. 113 g	8 oz. 227 g	12 oz. 340 g	1 1/4 lbs. 568 g
	1 1/4 oz. 35.4 g	6 oz. 170 g	12 oz. 340 g	1 lb. 454 g	2 lbs. 908 g
Under 6.7	1 1/2 oz. 42.5 g	8 oz. 227 g	1 lb. 454 g	1 1/2 lbs. 681 g	2 1/2 lbs. 1.1 kg

Lowering pH using Dry Acid (Sodium Bisulfate) (When pH is over 7.8, add the amount of acid indicated below, then retest)					
pH Level	Pool Volume				
	1,000 gal. 3.8 kL	5,000 gal. 19 kL	10,000 gal. 38 kL	15,000 gal. 57 kL	25,000 gal. 95 kL
7.8 – 8.0	0.1 lbs. 45 g	0.3 lbs. 136 g	0.6 lbs. 272 g	0.9 lbs. 408 g	1.5 lbs. 681 g
	0.2 lbs. 91 g	0.5 lbs. 227 g	1.0 lbs. 454 g	1.5 lbs. 681 g	2.5 lbs. 1.1 kg
Over 8.4	0.3 lbs. 136 g	0.8 lbs. 363 g	1.5 lbs. 681 g	2.3 lbs. 1.0 kg	3.8 lbs. 1.7 kg

## Free Chlorine

Unlike most liquid test kits that measure only Total Chlorine (Total Chlorine includes both Free Chlorine and Combined Chlorine) in pool water, AquaChek Yellow tests for Free Chlorine. Free Chlorine is "good" chlorine that is still able to keep your pool fresh and clean. Combined Chlorine is chlorine that has used up its ability to sanitize. Too much Combined Chlorine causes eye irritation and strong pool odors. To maintain a clean and clear pool, keep the Free Chlorine level in the right range. But before making any adjustments, be sure that pH and Total Alkalinity are in the ideal ranges. If the Free Chlorine is too low, add Chlorine. (See tables below.) For more detailed advice on the specific chemical treatment for your pool or spa, contact your dealer.

See warnings for handling chemicals ppm=mg/L

Chlorination Chart - Pools (Amount Needed to Introduce 1 ppm)				
Type of Chlorine	Pool Volume			
	5,000 gal. 19 kL	10,000 gal. 38 kL	15,000 gal. 57 kL	25,000 gal. 95 kL
Sodium Hypochlorite	5 1/2 oz. 163 mL	10 1/2 oz. 310 mL	1/2 qt. 473 mL	3/4 qt. 710 mL
Dichlor	1 oz. 28.3 g	2 1/4 oz. 63.8 g	3 1/4 oz. 92.1 g	5 1/2 oz. 149 g
Calcium Hypochlorite	1 oz. 28.3 g	2 oz. 56.7 g	3 oz. 85 g	5 oz. 142 g
Trichlor	3/4 oz. 21.2 g	1 1/2 oz. 42.5 g	2 1/4 oz. 63.8 g	3 3/4 oz. 106 g

Chlorine Treatment - Spas (Amount Needed to Introduce 4 ppm)		
Type of Chlorine	Spa Volume	
	250 gal. 948 L	500 gal. 1.9 kL
Dichlor	1/4 oz. 7.0 g	1/2 oz. 14.2 g
Sodium Hypochlorite	1 oz. 29.6 mL	2 oz. 59.1 mL
Lithium Hypochlorite	1/2 oz. 14.2 g	1 oz. 28.3 g

Superchlorination Chart - Pools* (Amount Needed to Introduce 10 ppm)				
Type of Chlorine	Pool Volume			
	5,000 gal. 19 kL	10,000 gal. 38 kL	15,000 gal. 57 kL	25,000 gal. 95 kL
Sodium Hypochlorite	1 3/4 qts. 1.7 L	3 1/4 qts. 3.0 L	1 1/4 gal. 4.7 L	2 gal. 7.6 L
Dichlor	11 oz. 311 g	1 1/3 lbs. 605 g	2 lbs. 908 g	3 1/3 lbs. 1.5 kg
Calcium Hypochlorite	10 oz. 284 g	1 1/4 lbs. 568 g	2 lbs. 908 g	3 1/4 lbs. 1.5 kg

Superchlorination Chart - Spas* (Amount Needed to Introduce 10 ppm)		
Type of Chlorine	Spa Volume	
	250 gal. 948 L	500 gal. 1.9 kL
Dichlor	2/3 oz. 18.9 g	1 1/4 oz. 35.1 g
Sodium Hypochlorite	2 1/2 oz. 74 mL	5 oz. 148 mL
Lithium Hypochlorite	1 oz. 28.3 g	2 oz. 56.7 g

\*To superchlorinate ("shock") water that has no measurable Free Chlorine in it, bring the Free Chlorine level up to 10 ppm and hold that level for 4 hours.

## Total Alkalinity

Total Alkalinity measures the amount of alkaline substances (carbonates and bicarbonates) in your water. Alkaline substances buffer your water against sudden changes in the pH of the water. It is important to prevent pH changes that can cause corrosion or scaling of metal fixtures. Total Alkalinity should be adjusted before adding chemicals to balance pH or Free Chlorine.\* If Total Alkalinity is too low, add sodium bicarbonate. If Total Alkalinity is too high, add an acid. (See tables below.) For more detailed advice on the specific chemical treatment for your pool or spa, contact your dealer.

\*Note: Low pH readings may result when Total Alkalinity is less than 80 ppm (parts per million). If the Total Alkalinity pad turns blue (very high) or yellow (very low), adjust the Total Alkalinity. Re-test until the test shows the alkalinity to be within the ideal range of 80-120 ppm.

Raising Alkalinity With Sodium Bicarbonate					
Increase in Total Alkalinity in ppm	Pool Volume				
	1,000 gal. 3.8 kL	5,000 gal. 19 kL	10,000 gal. 38 kL	15,000 gal. 57 kL	25,000 gal. 95 kL
10	2 1/2 oz. 62 g	12 oz. 340 g	1 1/2 lbs. 681 g	2 1/4 lbs. 1 kg	3 3/4 lbs. 1.7 kg
20	4 3/4 oz. 135 g	1 1/2 lbs. 681 g	3 lbs. 1.4 kg	4 1/2 lbs. 2 kg	7 1/2 lbs. 3.4 kg
50	12 oz. 340 g	3 3/4 lbs. 1.7 kg	7 1/2 lbs. 3.4 kg	11 1/4 lbs. 5 kg	18 3/4 lbs. 8.5 kg

Lowering Alkalinity With Dry Acid (Sodium Bisulfate)					
Decrease in Total Alkalinity in ppm	Pool Volume				
	1,000 gal. 3.8 kL	5,000 gal. 19 kL	10,000 gal. 38 kL	15,000 gal. 57 kL	25,000 gal. 95 kL
10	2 1/2 oz. 70.8 g	12 3/4 oz. 361 g	1 1/2 lbs. 681 g	2 1/2 lbs. 1.1 kg	4 lbs. 1.8 kg
20	5 oz. 142 g	1 1/2 lbs. 681 g	3 1/4 lbs. 1.5 kg	4 3/4 lbs. 2.2 kg	8 lbs. 3.6 kg
50	12 3/4 oz. 361 g	4 lbs. 1.8 kg	8 lbs. 3.6 kg	12 lbs. 5.4 kg	20 3/4 lbs. 9.4 kg

## Cyanuric Acid

"Stabilizer" or "Conditioner"

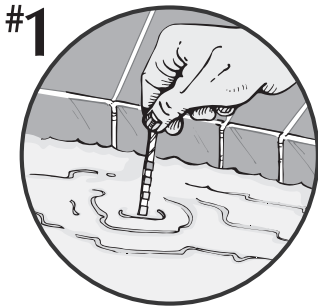
Cyanuric acid, also called "stabilizer" or "conditioner," makes chlorine more stable when exposed to the sun's ultraviolet rays. A low cyanuric acid reading indicates that chlorine will dissipate very quickly when exposed to sunlight. Two types of chlorine compounds, dichlor and trichlor, already contain some cyanuric acid. Cyanuric acid may build up with the continued use of one of these sanitizers. If you are using a liquid sanitizer, you will want to add cyanuric acid to the water. (See table below.) Too much cyanuric acid in the pool can reduce chlorine efficiency and contribute to scale, stains or cloudy water. For more detailed advice on the specific chemical treatment for your pool or spa, contact your dealer.

**The most common way to decrease the amount of cyanuric acid is to drain and refill the pool. For example, if you drain and refill half of the pool water, you will decrease the cyanuric acid level by 50%.**

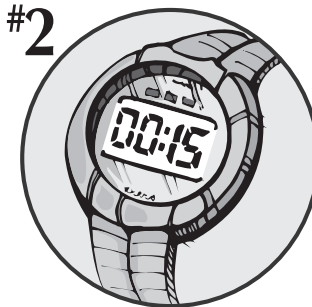
Establishing or Increasing Cyanuric Acid Level					
Increase in Cyanuric Acid in ppm	Pool Volume				
	1,000 gal. 3.8 kL	5,000 gal. 19 kL	10,000 gal. 38 kL	15,000 gal. 57 kL	25,000 gal. 95 kL
10	1 1/4 oz. 35 g	6 1/2 oz. 184 g	12 3/4 oz. 361 g	1 1/4 lbs. 567 g	2 lbs. 0.9 kg
20	2 1/2 oz. 70.9 g	12 3/4 oz. 361.5 g	1 3/4 lbs. 0.8 kg	2 1/2 lbs. 1.1 kg	4 lbs. 1.8 kg
30	4 oz. 113 g	1 1/4 lbs. 567 g	2 1/2 lbs. 1.1 kg	3 3/4 lbs. 1.7 kg	6 1/4 lbs. 2.8 kg

To learn more about pool and spa water testing, visit our web site, [www.AquaChek.com](http://www.AquaChek.com)

# AquaChek®



**DIP & REMOVE**



**WAIT 15 SECONDS**



**COMPARE**

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## ENGLISH

**Directions:** **1.** Dip a strip into water and remove immediately. **2.** Hold strip level for 15 seconds (do not shake excess water from strip.) **3.** Compare pH, Free Chlorine, Total Alkalinity and Stabilizer pads (in that order) to color chart on label.

For best results on Stabilizer (Cyanuric Acid) test, pH should be between 7.0-8.4 and Total Alkalinity should be at or below 240 ppm.

**Important:** Keep cap closed tight between uses. Store at room temperature. Use by expiration date on cap.

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