Water Test Guide

What We Test And Why We Test It!

True Blue Pools

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	What is it?	Why We Test It:	Treatment Options: (treatment: pool gallons/1 pound of chemical)
Free Chlorine Ideal Level (1ppm-5ppm)	The *active* chlorine	**Chlorine that is ready** to react to destroy organic material	Shock: Non-Chlorine Shock (10K/#) Super Sonic (15K/#)
Total Chlorine Ideal Level (1ppm-5ppm)	The *inactive* chlorine	**Chlorine that has already** attached itself to organic material	Di-Chlor, SuperCharge(10K/#) Sodium Hypochloride (10K/gal) 3" Tablets (10K/#)
Combined Chlorine Ideal Level (0.0-1.0)	The *used* chlorine	Also known as **Chloramines**, these are often the source of bad "chlorine" smell, red eyes & irritated skin from pool water.	*Shock options listed above, as well as:* Non-Chlorine Shock (10K/**2#**)
pH Ideal Level (7.2-7.6)	The relative acidity	**pH and Alkaline** influence the structure & function of many living systems. Anything too far low or high can cause irritation to eyes and skin, as well as corrosion of swimwear, surfaces, and materials.	pH Increaser; Soda Ash (up) Muriatic Acid; Dry Acid (down)
Alkalinity Ideal Level (80ppm-120ppm)	The relative base		Alkalinity Increaser; Sodium Bicarbonate (up) Muriatic Acid; Dry Acid (down)
Calcium Ideal Level (140ppm-400ppm)	softness/hardness	Low **Calcium** levels can cause: corrosive water, etching/pitting in concrete, plaster, or deck surfaces, dissolve grout, staining of pool surfaces, heater corrosion/failure	Calcium Hardness Increaser
Stabilizer Ideal Level (30ppm-60ppm)	UV blocker	**Extends chlorine** efficacy; prevents quick evaporation of chlorine	Stabilizer; Conditioner; Cyanuric Acid
Phosphates Ideal Level 0-100	Organic matter from things that were once alive	**Phosphates** are an essential nutrient for algae *life*, therefore, we want them as low as possible	PhosFree; PhosFight; Floc
Copper Level Max level (0.5ppm-1ppm)	A natural metal	**Copper** is used in some algaecides as a strong algae killer; high levels can cause staining and/or corrosion of equipment.	StainFree; MetalFree; CuLator
Salt Level Ideal Level Varies by System	A natural mineral	**Salt** is used to maintain a steady sanitization level in pools that use an ionizing or salt sanitizing systems	Salt, Sodium Chloride

Chemical(s) & *Aliases* (treatment measurement: Pool Gallons/Per lb of Chemical)	**Treatment Procedures**
Free Chlorine **Elements/Formula: HOCl, OCl-, & Cl2 tested against Na_2HPO_4 [Disodium Phosphate]**	Shock: Oxidizing Shock *Shoxidizer* (10K/#)	Oxidized shock can be broadcast around a pool, or gently poured in the skimmer*
Total Chlorine **Element/Formula: HOCl, OCl-, & Cl2 test results not affected by KI [Potassium Iodide]**	Tablets *(Pucks):* 3" Tablets (10K/#) Di-Chlor: *Super Sonic* (15K/#) *SuperCharge* (10K/#) *GLI Granular* (10K/#) Sodium Hypochloride: *Liquid Shock* (10K/gal)	Chlorine shock can be broadcast around a pool, or gently poured in the skimmer.* Tablets can be placed in a 'floater' to move around the pool, or placed in a skimmer basket.
Combined Chlorine **Element/Formula: FC-TC=CC; HOCl, OCl-, & Cl2 test results affected by KI [Potassium Iodide]**	Shock: Oxidizing Shock *Shoxidizer* (10K/2#); Di-Chlor: *Super Sonic* (15K/#) *SuperCharge* (10K/#) *GLI Granular* (10K/#) Sodium Hypochloride: *Liquid Shock* (10K/gal)	Maintaining 5^+ Free & Total Chlorine levels for 24+ hours by checking the water every 2 hours, with a Test Strip or reagent kit. Each time the level drops below 5, add shock & test again in 2 hours. Non-Chlorine Shock (10K/2#)
pH **Element/Formula (up): Na_2CO_3** **Element/Formula (down): HCl**	To increase:** Sodium Carbonate: *pH Increaser*; *Soda Ash* To decrease: Muriatic Acid [Liquid]; Dry Acid [Powder]	Increasers may be broad cast across or around the pool.* Liquid decreasers should be poured gently near a return, close to the water line. Powder decreasers can be broadcast across the pool.
Alkalinity **Element/Formula (up): $NaHCO_3$** **Element/Formula (down): HCl**	To increase:** Sodium Bi-Carbonate; *Alkalinity Increaser* To decrease: Muriatic Acid [Liquid]; Dry Acid [Powder]	Increasers may be broad cast across or around the pool.* Liquid decreasers should be poured gently near a return, close to the water line. Powder decreasers can be broadcast across the pool.
Calcium **Element/Formula: Ca**	Calcium Hardness Increaser	Read the container's directions before treating pool. Some brands require different procedures. If the directions call for 'premixing' DO NOT mix with your hand! This can cause severe skin burns and may require hospitalization. **DO NOT ADD Calcium to pools testing high pH/Alk, OR less than 8 hours before/after adding pH/Alk increasers! This can cause a chemical reaction, creating severe cloudiness that may last for weeks, and is costly to clear.
Stabilizer **Element/Formula: $C_3H_3N_3O_3$**	Cyanuric Acid *(CyA)*; *Stabilizer; Conditioner;* [Powder and liquid versions are available from different makers]	Read the container's directions before treating pool. Some brands require different procedures. Almost all require pouring into the skimmer. If so, do this SLOWLY! CyA does not dissolve as fast as other chemicals. Pouring it into your skimmer too quickly may result in clogging. The liquid version is recommended for pools with cartridge filtration.
Phosphates **Element/Formula: PO_4^{3-}**	PhosFree; PhosFlight; Flocculent	*PhosFree* is placed in the skimmer. *PhosFight* is broadcast around the pool. *Flocculants have* **precise directions** that need to be **strictly followed**.
Copper Level **Element/Formula: Cu**	StainFree; MetalFree; CuLator	*StainFree* & *MetalFree* **require** specific chemical balancing. Be sure to adjust your pool water according to the directions, **before** treating your pool. *CuLator is placed in your skimmer basket. For best results, replace the packet monthly.*
Salt Level **Element/Formula: NaCl**	Salt; Sodium Chloride	Pool-grade Salt is broadcast around the pool.

***pouring chemicals in a skimmer is *not* recommended for pools with heaters (one exception *may* be Cyanuric Acid)**