Glossary of Pool & Spa Terminology

Term	Definition
Acid	A chemical compound which releases hydrogen ions into water, decreasing pH. Products like muriatic acid or Sodium Bisulfate (pH minus, down or decreaser) are used to lower pH and Total Alkalinity in pool water.
Acid Demand	The amount of acid required to lower pH and Total Alkalinity of pool water to the correct level. Determined by the acid demand test.
Acid Demand Test	A reagent test usually used in conjunction with a pH test to determine the amount of acid needed to lower pH and total alkalinity levels.
Acid Rain	Precipitation having an unusually low pH value (4.5 or lower) caused by absorption of air polluted by sulfur dioxide, carbon dioxide and nitrous oxide.
Acidity	The state of being acidic (corrosive), as opposed to being alkaline, measuring below 7.0 (neutral) on the pH scale.
Acrylic	A thermoplastic sheet formed into a mold to make a spa or related equipment. It is first heated then vacuumed onto the mold.
Aggressive Water	A description of unbalanced water that attacks and corrodes pool surfaces, fixtures and pipes.
Air Blower	A mechanical device that forces air through holes in the floor, bubbler ring or hydrotherapy jets in a spa.
Air Relieve Valve	A brass or plastic manually operated valve located at the top of a tank for relieving the pressure inside and for removing the air inside (called bleeding). Also called a pressure relief valve.
Algae	Microscopic plant-like organisms containing chlorophyll that thrive in sunshine. They are present on vegetation, in the air, and in soils. Their microscopic spores are continually introduced into the pool by winds, dust storms, rain showers, etc. They grow rapidly in pool water when exposed to sunlight and temperatures above 40 degrees. If not destroyed by chemical treatment, they form objectionable slime and odor, can interfere with proper filtration and greatly increase chlorine demand. Phosphates (fertilizers) in the water encourage their growth. There are 21,000 known species of algae. The most common pool types are black, blue-green, green and mustard (yellow or drawn). Pink or red-colored algae-like organisms exist but are bacteria and not algae. Yellow and black are hardest to kill. Maintaining proper sanitizer levels, shocking and superchlorination will help prevent its occurrence.
Algaecide	Also called algacide. A chemical agent specifically designed and used to kill algae and prevent their recurrence.
Alkaline	A condition when the water is above 7.0 on the pH scale.
Alkalinity	The amount of bicarbonate, carbonate and hydroxide compounds present in the water. Total Alkalinity is a measure of the water's ability to resist changes in pH. One of the basic water tests necessary to determine water balance.

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Alum	An aluminum sulfate compound, commonly called Floc. Used to help clarify water. Causes small particles to join together so that they can be trapped in the filter. Alum lowers the pH of the water.
Aluminum Sulfate	See Alum
Ammonia	Introduced into the water by swimmers as waste (perspiration, urine, etc.) or by other means. Quickly forms foul-smelling, body-irritating chloramines, a disabled less effective form of chlorine. See chloramines.
Anti-Foam	A chemical added to the water to make the suds or foam go away. These products do not remove the source of the sudsing. Most often, the water must be drained and refilled to remove the soaps, oils and other causes of foaming. Shocking and superchlorination may help prevent foaming.
Ascorbic Acid	A chemical compound used to remove iron stains from fiberglass and vinyl-liner pools.
Automatic Pool Cleaner	A pool maintenance system that will agitate or vacuum debris from the pool interior automatically.
Backwash	A means of cleaning which reverses the flow of water through the filter, forcing dirt out a waste line. This is done by setting the backwash valve to the backwash position. Typical maintenance for sand and DE filters. NOTE: Never adjust the valve while the pump is running
Backwash Cycle	The time needed to backwash (clean) the filter and its components.
Bacteria	Invisible single-cell organisms of various forms, some of which can cause infections or disease. Bacteria are controlled by chlorine, bromine or other sanitizing agents.
Balanced Water	Water containing just the right amounts of Calcium Hardness, Total Alkalinity, pH and Dissolved Solids so as to prevent scale-forming or corrosive tendencies.
Ball valve	Used to regulate the flow of water and to shut off skimmers, drains and other lines in order to vacuum or run a spa or other water feature.
Base Demand	The required amount of soda ash (or other pH increaser) to increase the pH level of pool water to the ideal range of 7.2 to 7.6.
Biguanides	A sanitizer that is part of a non-chlorine water treatment system. Most chemicals used with chlorine are incompatible with biguanide sanitizers and visa versa. The recommended shock for biguanide treated pools contains hydrogen peroxide.
Blower	An electrical device that produces a continuous rush of air to create the optimal bubbling effect in a spa, hot tub or whirlpool. It is usually plumbed in with the hydrotherapy jets or to a separate bubbler ring.
Blue Fingernails	A condition caused by too much copper in the pool water. Blue fingernails are not caused by chlorine. the copper may get into the water by the bad practice of placing trichlor tabs in the skimmer; this acidic product will cause

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	low-pH water, which will in turn dissolve metals in the equipment. The dissolved metal (usually copper) then stains hair, fingernails and, eventually, pool walls. It can also be caused by keeping the pH too low or misusing acid.
Borate	An elemental mineral used for conditioning water to provide clearer, more comfortable water.
Bottom Circulation System (BCS)	Also called a main drain. It is a separate system that is installed beneath the pool connecting into the filter. The system circulates the water from below.
Breakpoint Chlorination	The process of adding sufficient chlorine to completely oxidize all organic matter, ammonia or nitrogen compounds. All chlorine added after that point is free available chlorine.
Broadcasting	Distributing chemicals into a pool by scattering over the water surface.
Bromamines	By-products formed when bromine reacts with swimmer waste (perspiration, urine), nitrogen or fertilizer. Bromamines are active disinfectants and do not smell, although high levels are body irritants. Bromamines are removed by superchlorination or shock treating.
Brominator	A mechanical or electrical device for dispensing bromine at a controlled rate. Most often a canister or floater filled with tableted or granular bromine.
Bromine	A sanitizer similar to chlorine commonly used in spas. Very effective against bacteria but it cannot be stabilized so it is susceptible to deterioration by sunlight. Unlike chlorine, it can be combined with ammonia compounds and still be an effective sanitizer.
BTU	Abbreviation for British Thermal Unit. The amount of heat necessary to raise 1 lb. of water 1 degree Fahrenheit.
Buffer	Chemicals that serve to prevent fluctuations in pH.
Bypass	An arrangement of pipes, gates and valves by which the flow of water may be passed around a piece of equipment or diverted to another piece of equipment; a controlled diversion.
Calcium Carbonate	Scale that forms from calcium compounds when pool water is too alkaline, calcium hardness is too high or total alkalinity is too high. These hard deposits accumulate on pool surfaces and equipment.
Calcium Chloride	Also called "Calcium Up" it is a soluble white salt used to raise the calcium harness of the pool water when required.
Calcium Hardness	A measure of the level of calcium and magnesium pool and spa water. Helps to determine how scaling or corrosive the water is. It is especially important to monitor calcium harness in pools with a plaster finish. The ideal range is from 200 to 400 ppm; the minimum level is 150 ppm. One of the basic water tests necessary to determine water balance.
Calcium Hypochlorite	The sanitizing or chlorinating agent using calcium as the carrying salt for application. It's a granular product that is not sun stable. It tends to increase pool water pH. It is usually used for superchlorination. It usually contains

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	65% available chlorine.
Cartridge Filter	Filter with a pleated element that traps debris. Looks like a giant oil filter.
Check Valve	A mechanical device in a pipe that permits the flow of water or air in one direction only.
Chelating Agent	(Pronounced KEY-late) Also called sequester. A chemical that binds up metals. Used to prevent metal staining and colored water.
Chelated Copper	Copper algaecides that contain a special ingredient to prevent the copper from staining the pool walls and bottom or producing colored water.
Chemical Feeder	Any of several types of devices that dispense chemicals into the pool or spa water at a predetermined rate. Some dispense chlorine or bromine while others dispense pH-adjusting chemicals.
Chloramines	Smelly compounds formed by combining with nitrogen compounds from human waste such as perspiration, urine and skin proteins. Chloramines have an objectionable odor of "too much chlorine" and can irritate swimmers' eyes and skin. Cured by proper shocking.
Chlorinator	A mechanical or electrical devise for dispensing chlorine at a controlled rate. Most often a canister or floater filled with tablets of chlorine.
Chlorine	The most widely used bacteria-killing agent for recreational water treatment. A sanitizer and an oxidizer. As a sanitizer it kills bacteria in pools. As an oxidizer it burns off organic matter and kills algae.
Chlorine Demand	The amount of chlorine required to destroy bacteria, algae, and other contaminants in swimming pool water. Once the chlorine demand is satisfied, the water will be in a sanitary condition until further contamination takes place.
Chlorine Enhancer	A chemical compound that when used in conjunction with chlorine makes the chlorine perform better as an algaecide.
Chlorine Gas	The most pure form of chlorine, which can only be applied to pools by trained professionals. It is not an appropriate sanitizer for spas.
Chlorine Generator	An electrical device that generates chlorine from a salt solution in a tank or from salt added to the pool water.
Chlorine Lock	A term used to describe a condition where chlorine has slower killing speed on algae, bacteria and burning out organic matter. It is caused by over-stabilization or excess cyan uric acid.
Chlorine Neutralizer	A chemical used to make chlorine harmless. Used in test kits to counteract the bleaching effect of the chlorine or bromine in order to increase the accuracy of pool water tests. Sold as chlorine and bromine neutralizer, it is used to destroy excessive amounts of chlorine or bromine, so the high levels will not affect swimmers.
Chlorine Residual	The amount of chlorine that remains in the pool or spa water after the

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	chlorine demand has been satisfied. See also Free Available Chlorine.
Circulation	The flow of water in a swimming pool or spa. Ideally the circulation should leave no dead spots (areas of stagnant water).
Clarifier	A chemical used to remove haze in the water. Usually works by causing small particles to join together so the filter or vacuum can pick them up. Also called coagulant or flocculant. There are two types; inorganic salts of aluminum (alum) or water-soluble organic polyelectrolytes.
Coagulant	A chemical compound added to water to gather suspended particles together for filtration. See Flocculating Agent .
Colorimetric Test	A test where a reagent causes a change in color when reacting with the specified chemical. This color is then compared to a color standard chart.
Combined Chlorine	Chlorine that is in combination with ammonia, nitrogen or other organic compounds. See Chloramines
Conditioner	Chemically, conditioner is cyanuric acid. It slows down the degradation of chlorine in the water by sunlight. Minimum level is 10 ppm. Too much does not slow down chlorine activity or effectiveness. Conditioner does not protect bromine from sunlight.
Coping	The material that joins the pool to the deck. Made of concrete, aluminum, plastic, brick or wood. Commonly concrete on concrete pools and aluminum on vinyl pools.
Copper	it is one of nature's elements. It is also used for various parts of equipment and plumbing in swimming pools and spas. Corrosive water caused by misuse of chemicals, improper water balance, or placing trichlor tablets in the skimmer can cause copper to be dissolved from the equipment or plumbing and deposit the precipitates on hair, fingernails or pool walls. High levels of copper can also cause green water. Copper is also used as an algaecide. Maximum level is about 0.2 ppm.
Copper Algaecide	A chemical compound that contains element copper. Copper sulfate was one of the original copper algaecides. Too much copper in the water can cause green-colored stains. Newer copper algaecides contain and ingredient that prevents the copper from staining but does not affect the copper's ability to kill algae. These special copper algaecides are called chelated copper algaecides.
Corrosion	The etching, pitting or eating away of the pool or spa or equipment. Caused by improper water balance, misuse of acid or acidic products or from soft water.
Corrosive Water	A water condition of low pH (acid condition) that can corrode metal pipes, pool fixtures and pumps.
Coupling	A plumbing fitting that is used to connect two pieces of pipe.

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Cover, Hard Top	A cover used on pools, spas and hot tubs that rests on the lip (coping) of the pool or spa deck - not a flotation cover. used as a barrier to swimmers and bathers, and for maintenance and thermal protection.
Cover, Solar	A cover that, when placed on the water's surface of a pool, spa or hot tub, increases the water temperature by absorption and transmission of solar radiation; reduces evaporation and prevents wind-borne debris from entering the water.
Cover, Winter	A cover that is secured around the perimeter of a pool, spa or hot tub that provides a barrier to bathers and debris when the pool, spa or hot tub is closed for the season.
Cyanuric Acid	Also called conditioner and stabilizer. Stabilizes chlorine. Can be part of the chlorine, as in stabilized chlorine or can be added separately if using unstabilized chlorine. Helps prevent deterioration of chlorine from heat or sunlight. Avoid high levels (75 ppm or above) which can cause discoloration, odors and other problems. Recommended level = 25 ppm.
Deck	The area that surrounds the pool. It can be made of a variety of materials including concrete, flagstone, brick, aggregate, etc. A deck should drain well and be slip resistant.
Defoamer	Also called Anti-Foam. A chemical that reduces and/or eliminates foam. It pops bubbles. Squirt it over the water surface.
Diatomaceous Earth (DE)	A white powdery filtering agent composed of the skeletal remains of a form of plankton (diatoms), commonly used to filter water. DE is added to the skimmer and as it goes into the filter it coats the elements. When the DE is dirty the filter is backwashed or drained and new DE must be added to the filter.
Dichlor	The common name for sodium dichlor. A fast dissolving chlorine compound containing chlorine and cyanuric acid (stabilizer or conditioner). It has a neutral pH and is quick-dissolving.
Directional Fitting	Eyeball type of device which attaches to the pool return so that the water can be directed a certain way.
Discoloration	Presence of unusual colors in the water, commonly clear green or brown.
Dissolved Solids	See Total Dissolved Solids (TDS).
DPD	Technical name is Diethyl-P-Phenylene Diamine. A test reagent used to measure disinfectant levels such as free available chlorine and total chlorine.
Dry Acid	Sodium Bisulfate - added to water to lower pH or Total Alkalinity. Safer to handle than muriatic acid.
Effluent	The water that flows out of a pump, filter or heater, usually on its way back to the pool or spa.
End-point Reaction	The resulting color change in a test sample created when you add drops of a given reagent. The number of drops correlates with a measurement.

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Enzymes	Break down oily, gooey substances and convert them to water and carbon dioxide.
Equalizer Valve	A device used in some pools where the main drain line is plumbed into the skimmer. Varies the flow from skimmer and main line, usually adjusted before vacuuming.
Escutcheon Plate	An ornamental shield, flange or border used around a pipe, plumbing fitting, grab rail or light.
Feeder	A device in the circulating water line of the pool which provides a constant controlled source of sanitizer, usually in the form of chlorine tablets for the recirculating water.
Fiber Optics	A lighting system that has light generated at a remote source and transmitted along fibers.
Fiberglass	Fine spun filaments of glass which are available in a rope or mat form. When used in a process with polyester resins, catalysts and hardeners, can be formed or molded into pools, spas and related shapes.
Filter	A device that is used to filter fine debris out of pool water. Types of filters include Cartridge, DE (Diatomaceous Earth), Regenerative DE, and Sand.
Filter Aid	A chemical compound added to the water or to the filter that allows the existing filter to become more efficient. Examples are alum, water clarifiers and D. E.
Filter Cycle	The length of time between cleaning or backwashing the filter until it has to be done again.
Filtration Rate	The rate at which the water is traveling through the filter, expressed in U.S. gallons per minute (gpm) per square foot of filter area.
Floc	The clump of tuft formed when suspended particles combine with a flocculating agent.
Flocculating Agent	Added to water to coagulate particles that cause haze. See Alum or Clarifier.
Flow Rate	The quantity of water flowing past a designated point within a specified time, such as the number of gallons flowing past a point in 1 minute - abbreviated as gpm.
Foam	A froth of bubbles on the surface of water. Usually comes from soap, oil, deodorant, hair spray, suntan oil, etc., that is shed into the water as swimmers enter.
Free Available Chlorine (FAC)	Also called Chlorine Residual or Available Chlorine. The amount of active chlorine remaining in the water after the chlorine demand to destroy algae, bacteria, or other contaminants has been satisfied. Recommendations vary for pool type, pool usage patterns and pool water pH.
GPD, GPH, GPM	Abbreviations for: gallons per day, gallons per hour, gallons per minute -

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	relating to flow rate.
Gizzmo	A hollow, collapsible plastic fitting used to plug the skimmer. If ice forms in the skimmer the gizzmo can absorb the expanding ice. It's green and looks like a thermos bottle.
Grab Rail	Also called a hand rail. A tubular steel or plastic device that can be gripped by swimmers or bathers for the purpose of steadying themselves. Usually located near the steps in a pool.
Green Hair	A condition caused by too much copper in the pool water. Green hair is not caused by chlorine. The copper may get into the water by the bad practice of placing trichlor tablets in the skimmer. This acidic product will cause low-pH water, which will in turn dissolve metals in the equipment. The dissolved metal (usually copper) then stains hair, fingernails and eventually, pool walls. it can also be caused by keeping the pH too low or misusing acid.
GFI	Ground fault circuit interrupter. A device intended to protect people. It interrupts (de-energizes) the electrical circuit whenever it detects the presence of excess electrical current going to ground.
Gunite	A mixture of cement and sand sprayed onto contoured and supported surfaces to build a pool. Gunite is mixed and pumped to the site dry, and water is added at the point of application. Plaster is usually applied over the gunite.
Hand Rail	See Grab Rail.
Hand Skimmer	A screen attached to a frame which is then attached to a telepole used to remove large floating debris, such as leaves and bugs, from the water's surface.
Hardness	The quantity of calcium and manganese dissolved in water. High levels contribute to cloudy water and scale formation while low levels cause water to "attack" pool components
Haze	Cloudiness in the water caused by very small floating particles. Turbidity.
Heat Exchanger	A device located inside the heater providing for the transfer of heat from the heat source to the water. This is usually a series of metallic tubes with fins located just above the flames.
Heater	A fossil-fueled, electric or solar device used to heat the water of a pool, spa or hot tub.
High Dissolved Solids	Pool water containing high levels of dissolved minerals. High levels of dissolved solids may cause water to have a "flat" or "salty" taste and cause water to appear dull or "dead". Pools with water three to five years old, or those containing water with solids higher than 3,000 ppm should be partially drained or diluted with fresh water.
Horsepower	The work done per unit of time. 1 horsepower equals 33,000 foot-pounds of work per minute or approximately 746 watts. Motors for pumps are rated in horsepower.

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Hydrochloric Acid	See Muriatic Acid.
Hydrogen	The lightest chemical element. A component of water, and a frequent product of many chemical reactions. pH is a measure of hydrogen in its ionic form in water.
Hydrogen Peroxide	An unstable, colorless, heavy liquid used as a bleach in industry and as an antiseptic in households. It is used as an oxidizing agent in pools and spas, especially with biguanide systems. May also be used to dechlorinate pool or spa water.
Hydro jet	A fitting in the pool or spa on the water return line from the equipment that blends or mixes air and water, creating a high velocity turbulent stream of air-enriched water.
Hypobromous Acid	The most powerful disinfecting form of bromine in water. Sometimes called the killing form of bromine.
Hypochlorite	An inorganic (un-stabilized) family of chlorine compounds used in various forms to provide chlorine for water treatment. Includes Calcium Hypochlorite, Lithium Hypochlorite, and Sodium Hypochlorite (liquid chlorine).
Impeller	The "heart" of the centrifugal pump. Rotating veins create the suction flow of the water into the pump. Pumps do more pushing that pulling.
Influent	The water entering the pump, the filter or other equipment of space. Water going into the pump is called influent, while water leaving the pump is called effluent.
Inlet	A fitting in the pool or spa on the water return line from the equipment that water returns to the pool. Usually the last thing on the return line.
Ionizer	A water sanitation device that uses electricity to generate copper and/or silver ions, which are dispersed in the water. It works by passing a low-voltage DC current through a set of metallic electrodes placed in line with the circulation equipment. The copper is an algaecide, while the silver is a bactericide. It does not remove swimmer waste.
Iron	Iron in water can cause the water to be brown or green colored. This can be controlled by the addition of a sequestering or chelating agent. Water can be tested with an iron test kit.
Langelier Saturation Index	A formula developed by Dr. W.F. Langelier to determine the scale forming or corrosive tendencies of water.
Leaf Rack or Scoop	Like a surface skimmer but has a bag for picking up leaves.
Leaf Vacuum	Powered by a garden hose, not the pool's vacuum system. Debris is swirled into a nylon bag atop the leaf vacuum.
Liquid Acid	See Muriatic Acid.
Liquid Chlorine (Bleach)	Sodium hypochlorite solutions added to water as a disinfectant. Characteristics include very low levels of available chlorine (12-15%), high

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	contribution to Total Dissolved Solids, and inconvenient to handle and apply. Should not be confused with Clorox.
Lithium Hypochlorite	A granular form of chlorine used in pools and spas. It is known for its tendency to dissolve quickly with 35% available chlorine.
Magnesium Hardness	A measure of the amount of magnesium dissolved in the water. It is a part of total hardness and causes scale if levels are too high.
Main Drain	The part of the pool that provides water circulation and is located in the center of the deep end on the pool bottom. Water can be removed from the pool through the main drain.
Make-Up Water	This is sometimes called "tap" or "refill" water. It is the water used to replace water lost to evaporation, splash-out, leaks or swimmer drag-out in the pool.
Micron	A unit of length equal to 1 millionth of a meter - it is .000394 of an inch. Microns are used to describe the pore size of filter media. Sand filters have openings of 25 to 30 microns; cartridge filters have openings of 8 to 10 microns; and D.E. filters have openings of 1 to 5 microns. Humans, without magnification, can see objects about 35 microns or larger. A granule of table salt is between 90 to 110 microns.
Mineral	Any substance that is neither animal or vegetable. It is any class of substances occurring in nature, usually comprising of inorganic substances, such as quartz or feldspar, of definite chemical composition and definite crystal structure. It sometimes includes rocks formed by these substances. Ground water dissolves these rock substances, and the dissolved minerals are present in tap water. Depending on the kinds of rocks the water comes in contact with, the minerals dissolved in the water may be just a few or they may be many. Water hardness is mostly comprised of these minerals.
Multi-port Valve	A lever controlled chamber with a number of settings to allow you to backwash.
Muriatic Acid	A solution of 31.45% hydrochloric acid - also called liquid acid. It is used for lowering pH, total alkalinity and for various cleaning needs. It is also used for acid washing.
N.S.F.	National Sanitation Foundation. A not-for-profit, non-governmental organization providing public health and safety-related information to concerned consumers around the world.
Neutralizer	A chemical used to make chlorine or bromine harmless. Used in test kits to counteract the bleaching effect of the chlorine or bromine in order to increase the accuracy of pool water tests. Sold as chlorine and bromine neutralizer, it is used to destroy excessive amounts of chlorine or bromine, so the high levels will not affect swimmers.
Nitrogen	A gas that causes algae to bloom and disables chlorine. An element that

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	when combined with chlorine forms chloramines. Common in rainwater, cosmetics, oils, perspiration and urine. Maintaining proper chlorine levels will prevent nitrogen from becoming a problem. Superchlorination will remove nitrogen and its related compounds.
Organic	Refers to volatile, combustible and sometimes biodegradable chemical compounds containing carbon atoms bonded together with other elements. The principal groups of organic substances found in water are proteins, carbohydrates, fats and oils. Also see organic waste.
Organic Waste	Debris such as microorganisms, perspiration, urine, etc. that needs to be oxidized (burned up) regularly to prevent haze, algae, chloramines, etc.
OTO	Abbreviation for orthotolidine. A colorless chemical reagent that reacts with chlorine to produce a series of light yellow to deep orange colors which indicate the amount of chlorine in the water. Only measures Total Chlorine.
Oxidation	The burning off of organic compounds (swimmer waste), ammonia and nitrogen compounds. These organic compounds disable chlorine, are body irritants and have a foul smell. Removal is accomplished by superchlorination or by shock treating with a non-chlorine oxidizer.
Ozone	A form of oxygen that disinfects and deodorizes. It is generated and entered into a pool by an ozonator. Highly unstable and cannot be used to create a sanitizer residual.
pH (potential Hydrogen)	A measure from 1-14 of how acidic or basic the water is. A pH of 7.0 is neutral. Pool water should be kept slightly basic with a pH of 7.2-7.8. A low pH indicates and acid condition which causes swimmer discomfort and corrodes pool surfaces and equipment. A high pH indicates a basic condition which promotes scale formation and causes cloudy water.
pH Minus	Sodium Bisulfate, also called dry acid. used to reduce pH and/or Total Alkalinity. Also called pH Down or pH Decreaser.
pH Plus	Sodium Carbonate or soda ash. Used to raise pH. Also called pH Up or pH Increaser.
Parts Per Million (ppm)	A unit of concentration often used when measuring levels of substances in air, water, body fluids, etc. One ppm is 1 part in 1,000,000. Four drops of ink in a 55-gallon barrel of water would produce an ink concentration of 1 ppm.
Phenol Red	A reagent (dye) for measuring the pH of water in a range from 6.8 to 8.2. It changes color from yellow to purple as the pH goes from 6.7 to 8.2.
Plaster	A mixture of white cement and white marble dust used as an interior finish, which can be tinted, colored or left white; applied to the gunite or shotcrete of a pool or spa.
Polymer	A substance made of giant molecules formed by the union of simpler molecules. Many water clarifiers are made from organic polymers. An example would be polymerized ethylene, called polyethylene.
Pool Base	The material that is used to form the bottom dimensions of the pool. It is

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	usually a combination of sand and cement or vermiculite and cement.
Pool Surfaces	Not to be confused with water surfaces. Refers to the walls and floor of the pool. Common surface types are fiberglass, plaster, painted concrete, vinyl, tile.
Potassium Peroxymon	Potassium Peroxymonosulfate. The active ingredient and chemical name of a non-chlorine shock treatment or non-chlorine oxidizer. Does not kill bacteria or algae but it will oxidize or destroy ammonia, nitrogen and swimmer waste. It has a low pH, and it does not increase chlorine or bromine levels the way that superchlorination does, so water may be entered 15 minutes after addition. It will also reactivate bromine to its killing form, hypobromous acid.
Precipitate	Solid particles forced out of solution by a chemical reaction. They may settle to the bottom of the spa or pool or remain suspended in the water giving the water a cloudy look.
Precoat	The coating of diatomaceous earth on the grids of a DE filter at the beginning of each filter cycle.
Pressure Gauge	A round dial located on the backwash valve or on top of the filter. Indicates in pounds per square inch (psi) the pressure inside the filter or other closed container. When the pressure reads 10 psi or more above the reading when the filter was last cleaned, that would indicate it is time to clean the filter again.
Priming	Filling the strainer or vacuum hose with water to help the pump push air out of the lines. If the pump won't prime, a full flow of water to the pump is being impeded by an air leak or restricted by clogged lines or baskets.
Pump	A motor powered mechanical device that creates pressure and water flow by spinning an impeller to provide circulation through the filter and heater.
Reagents	Chemical testing compounds that are used to test for chlorine, bromine, pH, total alkalinity, calcium hardness, etc.
Residual Bromine	The amount of measurable bromine remaining after treating the water with bromine. The amount of bromine left in the pool or spa water after the bromine demand has been satisfied.
Residual Chlorine	See Free Available Chlorine (FAC).
Returns	The point at which the water returns to the pool after having traveled through the filter.
Sand Filter	Type of filter that uses sand to clean the water.
Sanitizer	A general terms for a substance used as a disinfectant to kill bacteria and algae and oxidize organic contaminants. Generic names include Bromine, Biguanide and Chlorine.
Scale	Mineral deposits that form on pool or spa surfaces and equipment due to excessive calcium in the water when the pH level is high. Scale may appear

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	as gray, white or dark streaks on the plaster, fiberglass or vinyl. It may also appear as a hard crust around the tile.
Scum	The extraneous or foreign matter which rises to the surface of the water and forms a layer or a film there. It can also be residue deposited on the tile or walls of the pool or spa. Sources of scum include soap, oil, deodorant, hair spray, suntan lotions and others.
Sediment	The solid material settled out from the water.
Sequestering Agent	A chemical that bonds with metals so that they can't cause staining or discoloration. See also Chelating Agent.
Shock	An oxidizer that burns off the organic wastes that causes cloudiness and algae. It's a generic term for a chemical used to oxidize organic wastes.
Shock Treat	The practice of adding significant amount of an oxidizing chemical (usually non-chlorine oxidizers, such as sodium persulfate or potassium peroxymonosulfate) to the water to destroy ammonia, nitrogen compounds or swimmer waste.
Shotcrete	A mixture of sand and cement sprayed onto contoured and supported surfaces to build a pool or spa. Plaster is applied over the shotcrete. Shotcrete is premixed and pumped wet to the construction site.
Silt	Soil particles having diameters between 0.004 and 0.062 millimeters. Sometimes they may be too small to be trapped by the circulation system. In those cases, a clarifier or an alum product may be needed.
Silver Ion Purifier	A system that uses silver ions to kill water bacteria.
Simazine	A chemical substance used in swimming pools and spas as and herbicide or algaecide. Mainly used for killing black algae.
Skimmer	The white, box-like compartment on the side of the pool that automatically skims the top few inches of water, removing debris and oily films. Contains a removable basket that needs to be periodically cleared of debris.
Skimmer Weir	Part of a skimmer that adjusts automatically to small changes in water level to assure a continuous flow of water to the skimmer. The small floating "door" on the side of the skimmer that faces the water over which the water flows on its way to the skimmer. The weir also prevents debris from floating back into the pool when the pump shuts off.
Slide Valve	A manually controlled valve with two settings used to direct pool water flow.
Slugging	A method of lowering total alkalinity by pouring pH decreaser in one concentrated spot and turning off the filter.
Slurry	Water or a liquid containing a high concentration of suspended solids. D.E. is usually added to the filter as a slurry by mixing a small amount of D.E. in a bucket of water and then pouring the slurry into the skimmer with the filter on.
Soda Ash	See Sodium Carbonate.

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Sodium Bicarbonate	Baking Soda or Bicarb. The alkaline salt compound used to raise Total Alkalinity. Not to be used for increasing pH. Also called Bicarb or Bicarbonate of Soda.
Sodium Bisulfate	Dry acid - also called pH Down. Used to decrease the pH and/or Total Alkalinity of water.
Sodium Bromide	A salt of bromine. It is used to establish a bromine "bank" in pool and spa water prior to beginning the use of bromine tablets.
Sodium Carbonate	Soda Ash. Used to increase the pH of water. Also called ph Up.
Sodium Hydrogen Carbonate	Also called Alkalinity Up or pH Stabilizer. Used to raise total alkalinity.
Sodium Hypochlorite	Otherwise known as common household bleach.
Sodium Persulfate	Active ingredient and chemical name of a non-chlorine shock treatment or non-chlorine oxidizer. Does not kill bacteria or algae but it will oxidize or destroy ammonia, nitrogen and swimmer waste. Does not increase chlorine or bromine levels the way the superchlorination does, so water may be entered 15 minutes after addition. It will not reactivate bromine.
Sodium Sesquicarbonate	A chemical mixture of equal parts soda ash and sodium bicarbonate used to increase pH and total alkalinity in pool and spa water. It was a pH of 10.1.
Sodium Sulfite	A chemical used to neutralize or de-chlorinate pool and spa water.
Sodium Thiosulfate	A chemical used to neutralize or de-chlorinate pool and spa water.
Soft Water	Water low in calcium and magnesium mineral content (water hardness) - usually less than 100 ppm. Also, water that has gone through a water softener. Pools and spas should not be filled with soft water from a softener. Water with less than 100 ppm of hardness should be increased to a minimum of 150 to 200 ppm using calcium chloride.
Solar Cover	A cover that, when placed on the water's surface of a pool or spa, increases the water temperature by absorption and transmission of solar radiation; reduces evaporation and prevents wind-born debris from entering the water.
Solar Heating Coils	Accessory tubes through which water is warmed by the sun and returned to the pool.
Source Water	Also called "tap" water. It is the water used to fill or refill the pool or spa.
Stabilized Chlorine	Chlorine that contains Cyanuric Acid to protect the chlorine from the degrading UV rays in sunlight. Most common types are sodium dichlor and trichlor.
Stain	A discoloration or a colored deposit on the walls or bottom of a swimming pool or spa. Most often, stains are metals such as iron, copper and manganese. They may appear as green, gray, brown or black and may even discolor the water. Sometimes a sequestering or chelating agent will remove them. If not, usually an acid wash is necessary to remove them from the walls and bottom. The metals get into the water because the pH was too low

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	or someone has added a low-pH chemical directly into the circulation system. Stains are sometimes confused with scale.
Stain Inhibitor	Also called a sequestering or chelating agent. A chemical that will combine with dissolved metals in the water to prevent the metals from coming out of solution (precipitating or causing stains). May also be a chemical that removes dissolved metals from water.
Strainer	A basket in front of the pump that keeps fine debris from reaching the pump's impeller area. Must be cleaned periodically. Sometimes called a "hair and lint trap".
Superchlorinate	The addition of sanitizers in larger amounts than normal (5-10X dosage) to burn out organics, chloramines, etc. See Shock
Surface Skimmer	A plastic, flat mesh net skimmer used to scoop up and remove floating debris.
Surfactant	A soluble chemical compound that reduces the surface tension between two liquids. It is used in many detergents and soapy cleaning compounds.
Suspended Solids	Insoluble solid particles that either float on the surface or are in suspension in the water, causing turbidity, or a cloudy condition. They may be held in suspension by agitation or flow. They may be removed by filtration, but if the particles are too small, they may not be trapped by the filter. In these cases, a clarifier or alum may be needed to remove them.
Telepole	A long-handled aluminum pole, which extends in length. Various pool-cleaning tools, such as brushes or vacuums, may then be attached.
Test Kits	Various kinds, used to measure water factors. A good one will measure pH, total alkalinity, chlorine level, free chlorine, calcium hardness and cyanuric acid.
Test Strips	Chemically treated strips that have the appropriate amounts of reagents on them. Simply dip them into the water and read the reactions. These strips can test free available and total chlorine, bromine, pH, calcium hardness, total alkalinity and cyanuric acid. these strips are not to be used to replace more accurate DPD test kits. They can be used in conjunction with more accurate kits.
Tetraborate Compound	A generic term for a chemical commonly used to treat and prevent pink slime, water mold and algae.
Titration Test	A test used for acid and base demands, total alkalinity and calcium hardness. It creates and end-point reaction by adding drops of the reagent to elicit a change in the sample's color. The number of drops required correlates with the measurement. Sanitizer tests are available using this method.

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Total Alkalinity (TA)	A measure of total alkaline substances dissolved in the water and of the water's ability to resist pH change (stability). If too low, the pH tends to bounce very erratically. if too high, pH resists adjustment and the water more susceptible to scale and high pH. Recommended range = 80-150 ppm. See Alkalinity.
Total Chlorine	A measure of both "free chlorine" and "combined chlorine" in pool water.
Total Dissolved Solids (TDS)	A measure of the amount of dissolved matter in the water. A high level of solids (1500 ppm and higher) interferes with sanitizer effectiveness. Maximum amount is pools is 2500 ppm. Maximum for spas is 1500 ppm over starting TDS. The only way to effectively lower TDS is to drain part or all of the water and replace it.
Trichlor	A slow-dissolving, tableted or granular, stabilized organic chlorine compound providing 90% available chlorine. Used for regular chlorination, but must be dispensed using a floating feeder or an in-line feeder (chlorinator). Trichlor contains an ingredient that prevents the chlorine from being destroyed by the ultraviolet (UV) rays of the sun. Trichlor has a pH of 2.8, and regular trichlor tablets should not be placed in the skimmer.
Turbidity	The cloudy condition of the water due to the presence of extremely fine particles in suspension that cannot be trapped by the filter because they are too small. Adding a clarifier, such as alum, will coagulate the particles and make the filter more efficient.
Turbidity Tests	Used to test the amount of cyanuric acid in the water. The reagent causes a cloudiness in the test water. Measurement is obtained by comparing the test water's visibility (the degree of clarity of a dot in the test vial) to the test manufacturer's chart.
Turnover Rate	The period of time (usually in hours) required to circulate a volume of water equal to the volume of water contained in the pool or spa. For example, pool capacity in gallons, divided by pump flow rate in gallons per minute (gpm), divided by 60 minutes in 1 hour, will give hours for 1 turnover.
Unstabilized Chlorine	Chlorine that does not contain Cyanuric Acid. Unstabilized chlorine is susceptible to degradation by the ultraviolet (UV) rays of the sun.
Vacuum	Any number of devices that use suction to collect dirt and debris from the bottom and sides of a pool or spa. Most commonly, it is a vacuum head with wheels that attaches to a telepole and is connected to the suction line usually via the opening in the skimmer. It must be moved about by a person, and debris is collected in the filter. See also Automatic Pool Cleaner.
Vacuum Hose	Used to vacuum debris from the floor and slopes of the pool. It attaches to the vacuum head on one end and to the vacuum plate on the other.
Vacuum Plate	Provides a vacuum-sealed connection for the vacuum hose, allowing debris to be caught in the skimmer basket rather than the pump strainer basket.
Venturi	A fitting that consists of a tube constricted in the middle and flared on both

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	ends. While passing through the constriction, a fluid's velocity will increase while its pressure will decrease. Placing a tube or pipe at the constriction point creates a vacuum. Fluid or air can then be drawn in through the tube. A hydro-therapy jet draws air in and mixes it with the water using this principle.
Vinyl LIner	The vinyl liner is the product that covers the walls and base of the pool and holds in the water. the liner has a beaded edge that locks into the coping. The heavy ml vinyl liner is durable, easy to clean, and generally maintenance free through all kinds of weather. It can be specially treated to resist bacteria, typical chemical levels and ultraviolet rays.
Water Balance	This balance is reached when all elements (pH, total alkalinity, calcium hardness, total dissolved solids and temperature) are within their proper ranges.
Water Mold	A type of bacteria found in nasty looking pool water. White-gray or pink in color, Very slimy and difficult to eliminate.
Winterizing	The procedure for leaving the water in the pool over the winter, as opposed to draining. Includes chemical treatment of the standing water, plus physical protection of the pool and its equipment against freezing.

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