Your Swimming pool's Water Chemistry, all the players you should know about and their purpose

If you are a chemist then you know about the importance for the water in your swimming pool to be balanced, this means that all the players in the water are working together. Players here means the various chemicals in the pool water, that all have to be maintained to certain levels to keep the pool water both working by maintaining clarity and feeling good by not burning or slippery.

Obviously, we all are not chemists and do not understand the players in the water our judgment of the pool is, is it clean? A Kool Pool Service does understand the players and can insure a healthy and clean pool.

Did you know the sun is also a major player, since the strength its UV rays has an effect on some of the chemicals in the water? Let's take a closer look at some of the chemicals and their interaction;

Calcium, you might already be familiar with "Calcium Buildup "on your shower walls or in your coffee pot. The same phenomenon happens in your pool.

The Calcium Ion is a normal element, mineral in the water, but to varying degrees depending on the source. The water in our beautiful Coachella Valley comes from below the ground and it is loaded with Calcium. If the concentration of Calcium in your pool water is too high, hard water can result in white precipitates, Scale. This definitely causes problems with pool clarity and can even make the water look milky. It also leads to the buildup of scale on the pool walls. Calcium concentration if greater than 400 PPM will cause Scales. Likewise, too low a concentration of Calcium called soft water, can lead to the water being corrosive, due to too much acidity.

The preferred range for calcium in a plastered pool finish is 150 to 400 PPM, parts per million. Calcium can be increased by adding Calcium Hypochlorite but can only be decreased by replacing the water.

Cyanuric Acid, is a major component of disinfectants. It is often called Conditioner or Stabilizer. It helps to prevent loss of chlorine due to the Sun's UV rays. It not only prevents the rapid dissipation of chlorine due to the sun, but it also prevents you the pool owner, from having to pay for additional disinfectants.

Cyanuric Acid is mainly used as a precursor to N-chlorinated Cyanurates which are used to disinfect water. The Dichloro derivative is prepared by direct chlorination. This N-chloro compound serves as a disinfectant and Algaecide it kills algae in swimming pool water. It stabilizes the chlorine in the pool water and prevents it from being too rapidly dissipated.

The Ideal range for Cyanuric Acid for most home swimming pools is 30 to 80 PPM. Since it is an Acid it will lower the pool water's PH that will then have to be adjusted upward.

Chlorine is used as the major pool sanitizer. When chlorine is added to water, there is a dissociation of the chlorine molecule which leads to the formation of Hypochlorous acid, (HOCL) and hydrochloric acid. The temperature of the water and the PH of the water determine how much of each product is made. Hypochlorous acid is the active, killing agent of chlorine. It is a strong oxidizing agent. It will do the sanitizing of your pool water. Microorganisms in the water will be killed because the HOCL destroys cell walls of the organisms, thereby destroying the ability of the cells enzymes to carry out their normal processes. The HOCL will continue its oxidizing process until it either combines with a Nitrogen or Ammonia component, turning it into a chloramine. If Swimming pool users get Red Eye it is due to the presence of chloramines, meaning the pool water is improperly balanced.

Dichlor and Trichlor are types of chlorine pool treatments that automatically release Cyanuric acid in the pool, so it is not necessary to add Cyanuric Acid if using these solid chlorine compounds to disinfect your pool.

Chloramines also known as combined chlorine, as mentioned they are formed from the combination of chlorine and ammonia, the latter of which is excreted through the skin by bathers. High levels of chloramines in the pool water give rise not only to "red Eye" but are easily detectable by the chlorine odor.

Total Alkalinity refers to the total quality of the alkaline materials present in the water and measures the water's ability to act as a buffer or resist major changes in the PH. If the PH becomes too low the water becomes acidic, too high a PH leads to basic water. If TA is too low it allows for rapid PH bounce in the water and can contribute to pool corrosion. If TA is too high it can lead to cloudy water and scaling. Either extreme makes the PH adjustment more difficult.

Total Alkalinity levels should be kept between 80 and 120 PPM. This leads to an ideal buffering condition for your pool and bather comfort.

PH stands for Para-hydrion Concentration. It is a measure of the acidity of the water. The PH scale goes from 1 to 14, 2 being very acidic, that is the PH of our stomach acid which of course digests all kinds of things, but also kills bacteria which could otherwise pass further into our system. PH 7 is considered neutral and anything at PH 11 or above is considered very basic. Most of the buffering systems of our body operate around PH 7.4.

If the PH of your pool water, which should be kept between 7.2 and 7.8 bounces in either direction, it can affect everything else. Depending on which way it goes, the effects can be; reduced ability of the chlorine to sanitize your pool water thereby not killing harmful bacteria, Corrosion of the metal parts of your swimming pool equipment. Scale formation on the walls of your swimming pool, Skin and or eye irritation for pool bathers, Staining of the pool surface, and harmful effects to the pool plaster.

You can see it is extremely important to keep all of these pool players balanced thereby your pool water is balanced as they all interplay with and affect each other.

A Kool Pool Service provides professional and reliable swimming pool service. For all your swimming pool needs, cleaning or repair within the Coachella Valley, Palm Springs, Palm Desert, Bermuda Dunes, La Quinta and Indian Wells, call us. We have a reputation for maintaining long lasting relationships with all their customers. A Kool Pool specializes in alternatives to help maintain safe pool water chemistry without dangerous chemicals. To get more information on a top pool cleaning companies CA in Coachella Valley and surrounding areas, visit www.akoolpool.biz, Email akoolpoolserv@aol.com or call 760-773-0135.