

## **A Beginners Guide to Swimming Pool Chemicals**

### **Chlorine:-**

The most common sanitiser used for swimming pools. Under normal circumstances a free chlorine level of **1-3ppm** is advised. To let this level drop to zero may result in algae forming, which at first may be unnoticeable to the eye.

When algae is present a "super chlorination" of the swimming pool water is necessary. This boosts the free chlorine level killing the algae and oxidising waste compounds within the water. A fortnightly maintenance dose of Shock Chlorine is advisable to keep chloramines and other waste matter at bay. Chloramines are the main cause of the strong smell and stinging of the eyes generally associated with chlorine.

### **Bromine:-**

Bromine is most commonly used as a hot tub and fountain sanitiser. This is mainly due to the fact that bromine is more efficient than chlorine at high temperatures and less dependant on Ph levels. It is not however, UV stable unlike stabilised chlorine, therefore is short lived in direct sunlight. For hot tubs and spas bromine levels of **3-5ppm** should be maintained at all times.

Rather than shock chlorine, a non chlorine based oxidiser is generally used in conjunction with bromine.

### **Algaecides:-**

Prevention is *always* better than cure when it comes to maintaining safe and clean swimming water.

Algaecides support the sanitiser helping to keep the water algae free. We strongly recommend the use of a long life algaecide, like Kleen Pool, and to replace the algaecide which expires due to use and backwashing we recommend a separate maintenance dose.

For concrete or marbelite pools, steer clear of copper based algaecides as they can create staining to the pool shell. If you are unsure of what is contained in your algaecide, ask your local pool supplier.

### **PH and Total Alkalinity:-**

PH is a measure of how acidic or alkaline your pool water is, 0 being the most acidic, 7 being neutral, and 14 being very alkaline. Swimming pool water should be kept at a Ph value of between **7.2 and 7.6**. This should be adjusted using granulated PH+ and PH- to aid sanitiser efficiency and enhance bather comfort.

Total alkalinity is often overlooked by pool owners, although keeping a value of 80-150 will stop your PH from fluctuating, thus lessening the amount of chemicals used in the pool. Having a high "TA" which is prevalent in a hard water area such as Kent causes scale to form which can severely damage your pool heater, especially if it is electric or gas.

### **Clarifiers and Flocculents:-**

Suspended particles in the water are often too small for the filter to collect. Because of this a clarifier may be used to clump these particles together aiding the filter, and creating crystal clear water.

A flocculent is a more extreme measure. Instead of aiding the filter, the collected matter generally falls to the bottom of the pool which needs to be vacuumed away (to waste). Flocculants are not recommended for inexperienced plant operators as the very fine dust left behind can be rather difficult to remove efficiently.

Even with the use of a clarifier or flocculent, we still recommend a sand change every 3 years. This will reduce the need to use clarifiers to a certain extent, and prevents damage to your filter.

### **Weekly Maintenance:-**

It is a good idea to get into a routine when maintaining a swimming pool or spa. Regular testing of the water is essential for safe swimming, along with this a weekly maintenance is advised.

For pools, filter backwashing, pool cleaning, and full chemical check/dose. Remember to remove all debris from skimmer baskets and pump strainers where applicable, and to clean your cartridges if you have them.

For spas and hot tubs, clean cartridges, and tub, and once again a full chemical check/dose. Unlike a pool, spas should be emptied, cleaned and refilled every three to six months dependant on usage. This is due to the much greater bather load on the water, and means less chemicals are needed.