

What is causing my pool's staining?

During the past few years the issue of metal stains in pools has come to the forefront in the pool industry. Many aquatic professionals believe that staining is now becoming the 2nd leading issue for pool owners, just behind proper water sanitation. In fact, it has become a worldwide problem that pool chemical companies like Sea-Klear have been focusing more attention on.

Many of the most popular water sanitation chemicals all have at least small amounts of metals in them.

- This includes tri-chlor tablets, di-chlor powder, calcium hypo-chlorite (standard item used for shocking a pool), clarifiers, ionizers, and salt systems.
- In addition to this, add fill water, lawn/garden fertilizers and products, and tree leaves, buds, and seeds. The metals in tree leaves actually comes from the soil. The iron, magnesium, etc. is drawn up from the roots as food for the tree.
- The more leaves in your pool, or left resting on a winter cover, the more trace metals added to your pool. It is no wonder that staining is a leading problem for pool owners.

As metal molecules circulate in the pool, they stay in a dissolved state where there is no visible staining. However, when sanitation levels hit certain levels, or wind/rain bring in landscaping chemicals, or when certain clarifiers are added to a pool, the metals precipitate-cling to surfaces-out of the water and become visible as the stains you see on the walls and floor of the pool. Even without the addition of chlorine, fertilizers, or clarifiers, when copper and iron reach certain levels, they will precipitate out as stains.

- Stain removal products are used to "lift" the stains off the pool's surface and put them back into a dissolved in the pool water.
- Though the stains are gone, the metal in the water is not. It is there in suspension waiting for the next catalyst to precipitate it out.

Many of the most popular stain removal products have significant side effects.

- The most problematic is they contain phosphates which is the natural food for algae.
- They also significantly drop the chlorine level in the water.
- So if there is algae in the water, which in the beginning stages is invisible because it is a spore, it may become a full-blown algae bloom soon after stain treatment with the drop in chlorine level.
- And the best treatment for algae is an elevated chlorine level, which is also the catalyst for dissolved metals to precipitate out as stains. So then it can become a vicious cycle: stain then algaand back to stain again..

All stain removers work best in a tight pH range of around 7.2ppm. Some will not work properly if the chlorine is above 1.0ppm. So, if a pool owner or service company is not properly adjusting those two levels prior to, and during the treatment process, the stain removing results can be minimum. This becomes a costly experience that leaves the pool owner frustrated by lack of results.