

What Causes Metal Stains in Pools?

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Nothing bothers pool owners more than those unsightly blotches and discolorations on an otherwise unblemished pool surface. Staining is caused by organic matter such as algae, inorganic metals, or water trapped beneath plaster surfaces. Managing and preventing stains, especially those from metal oxidation, can be challenging.

Organic stains are typically removed by a simple shock treatment followed by scrubbing the surface with a stiff brush. However, many organic stains, such as those caused by some types of algae, require more complex treatments including enzyme-based pool chemicals and/or metal-based algaecides. Pool owners should consult their local pool professional to determine the cause of the organic stain and the best treatment. If a metal-based algaecide is required, always use a sequestering agent to prevent the metal from oxidizing and staining the pool surface, and use CuLator® Metal Eliminator and Stain Preventer to remove and eliminate the metal from the water.

Stains resulting from metal oxidation are frequently more problematic than those caused by organic material. Metals are naturally occurring substances found everywhere, including stone, soil and water. Rainwater is acidic and tends to dissolve the metals found in soil and stone, thereby increasing metal concentrations in surface and ground water. Furthermore, because all municipal and well water contains some metal, introducing metals into your pool is unavoidable. Irrigation systems are also a common source of metal contamination.

Additionally, stone water features, decking materials, plaster pool surfaces, pool chemicals, pool equipment, and lawn fertilizers are all potential sources of metal contamination. Marble, flagstone and granite, for example, naturally contain iron, which can leach into a pool after every rain. Salt used in all salt water systems also contains iron. Copper can be introduced into pool water from the heat exchanger found in the pool heater, from copper-based algaecides, or from poorly maintained ionization systems. Manganese and nickel, also commonly found in pool water, are frequently in the source water used to fill pools.

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