# What Is It?

Mustard algae is yellowish-green in colour and forms on pool surfaces, preferring shady areas. In its early stages, mustard algae can look like small patches of sand or pollen on the bottom of the pool. It brushes away very easily, but can also return quickly. In more extreme cases, it can turn the entire pool into a pea-green colour.

Mustard algae is very similar to green algae. It still converts sunlight to energy (photosynthesis) and uses carbon dioxide and nutrients to grow.

Mustard algae contains a compound called fucoxanthin. Fucoxanthin is yellow (which makes the algae look like mustard) and is a natural reducing agent — the opposite of oxidisers or chlorine. This is why mustard algae is resistant to chlorine.

#### What Causes It?

Algae are very similar to plants, thus require the same environmental conditions to cultivate. Light, water, carbon dioxide and nutrients are all required to provide a friendly environment for algae. Stagnant water, poor or incorrect use of water balance all contribute to algae growth.

In addition, the environment surrounding the pool plays a big part to thriving algae. Elements include warmer temperatures, dust and organic matter carried by the wind, sunlight, rain, bird leavings, pets, plants, trees and fertilisers.

We cannot remove certain factors, such as water, light and carbon dioxide. However, with the proper use of pool chemicals, we can greatly reduce algae's food sources.

#### How To Treat It

Because mustard algae is resistant to chlorine, a usual oxidation or super-chlorination treatment will not necessarily fix the problem without also checking the water balance and using a strong algaecide.

**Recommended Treatment** 

- CLEAN: Chemically clean the filter with BioGuard<sup>®</sup> Filter Brite<sup>™</sup> according to label instructions for your filter type and size.
- BALANCE: Ensure pool water is well-balanced and the pH is between 7.2 7.4, so it will promote active chlorine.
- OXIDISE: Provide the pool with a high FREE chlorine residual through oxidation (i.e. provide enough chlorine to at least reach breakpoint chlorination).
- ALGAECIDE: Apply a killing dosage rate of a primary algaecide according to label instructions:
  - BioGuard Algizine<sup>™</sup> dual action
  - BioGuard MSA<sup>™</sup> II copper polyacrylate formulation
  - BioGuard AlgiGuard<sup>®</sup> quaternary formulation

\* For biguanide pools or pools using ionisers or salt cells, read the cautionary statement on the next page.

BRUSH: Brushing algae as often as possible (i.e. at least once a day) from pool surfaces is vital in the treatment.





CAUTION: For biguanide pools, we do NOT recommend using MSA II (or any copper-based chemicals). If the pool has an ioniser, check with the manufacturer before using this product. Although MSA II uses patented technologies to prevent copper from escaping the algaecide, many ioniser and salt cell manufacturers will void the warranty if <u>any</u> copper compounds are added to the pool. In addition, MSA II technology will only stabilise the copper within its own formulation. It will not achieve the same results with copper derived from other sources.

# **Cleaning Pool Equipment**

Algae spores are able to survive long periods out of water and can easily reinfest the pool through bathing suits, automatic cleaners, nets, poles, brushes, and other equipment that had been used in the pool while the algae was still present. Therefore, it is a good idea to decontaminate your pool equipment.

Chemically clean all of your equipment with a solution of chlorine and water while you are treating for algae in the pool. Wash bathing suits with detergent, and bleach if possible, before wearing them in the pool again.

Alternatively, you may leave the pool equipment submerged in the pool for the entire duration of treating for mustard algae. Ensure you check the manufacturer's instructions before doing so.

## Summary

Mustard algae is one of the more difficult problems to solve in a pool or spa. Persisting with good water balance, free chlorine residual, a strong algaecide and brushing will be far more effective than any other treatment.

Once the mustard algae is no longer visible, persist with the recommended treatment for another two to three weeks to prevent a relapse.

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