

TECHNICAL BULLETIN



19 Motivation Dve Wangara, WA, 6065 AUSTRALIA
T +61 8 9302 4000 | FREE 1800 999 196 | F +61 8 9302 5000

ERADICATION OF BLACK SPOT

FIBREGLASS POOLS

EXTRACT FROM GOVERNMENT CHEMICAL LABORATORIES REPORT No. 8
- NOVEMBER 1974

1. Apart from recoating the underwater inner pool surface no permanent solution to the problem is visualized.
2. A theoretical temporary solution is to treat the pool water with adequate Mineral Acid, either Hydrochloric or Sulphuric Acid, to drop the pH to about 4 - 5. Metallic pumping equipment should be isolated from such treatment and the pool should not be used for swimming. After one week contact the stain should be satisfactorily removed and the pH should then be corrected to its normal neutral value of 7.5 by the addition of Pool Alkali (Soda Ash). The chlorine requirements for the re-establishment of break point chlorination would be minimal and should be implemented prior to use for swimming.
3. Organic Acids, including Ascorbic and Citric, which have been recommended by some manufacturers are considered not as suitable as the abovementioned Mineral Acids in effecting a temporary solution. Some promoters for the use of Organic Acids argue that because of their ability to complex the inorganic hydrated oxide stain, they are capable of removing the stain at pH values in the region of 6, and that although this pH value is below the minimum allowed for public swimming pools in WA it does not constitute a health hazard.

However, most if not all of these Organic Acid types are destroyed by chlorine and the re-establishment of a recommended free chlorine level of approximately 0.5 to 1.0 mg/Lt would not be possible until all the Organic Acid had been destroyed.

4. Sulphamic Acid, which reputedly removes the stain at pH values of approximately 4.5, although easier to handle than Mineral Acids is not recommended because of the high chlorine requirement to re-establish breakpoint chlorination as with Organic Acids. The high chlorine requirement for sulphamic is due to its easily oxidizable Nitrogen component.
5. In summary, with either type of acid treatment, Organic or Inorganic, **swimming is not recommended during the treatment period.** The organic acid treatment, which is more expensive suffers the additional disadvantage of high chlorine doses to re-establish breakpoint chlorination conditions.

PROVEN PROCEDURE FOR BLACK SPOT TREATMENT page 2

1. Add 5 litres Hydrochloric Acid to pool water.
2. Add Pool Algaecide at the rate specified by manufacturer.
3. Leave 24 hours before starting the pool pump.
4. Circulate pool water for 1 hour every day for 1 week.
Scrub Black Spot if necessary.
5. Leave for 7 days and **DO NOT SWIM IN THE WATER.**
6. Bring pH of pool back to 7.2 - 7.6 with the addition of Pool Alkali (Soda Ash). Add 4 kg Pool Alkali, circulate water several hours. Check pH and add more Alkali if necessary.

IMPORTANT NOTICE TO CUSTOMER

*Since the use of this product is beyond the control of either seller or manufacturer, their only obligation shall be to replace any quantity of product which is proven defective. They cannot assume any risk or liability in excess of the purchase price of the product itself, which does not include labour or any consequential damages resulting from the use of this product. Determining the suitability of this product for any intended use shall be solely the responsibility of the user. **ALWAYS TEST FIRST***