



Water Quality Association*

12 million people carry *Cryptosporidium*

Did one of them swim in your pool?



SeaKlear® PRS® traps algae, *E. coli*, *Cryptosporidium* & *Giardia* in the filter

According to the Centers for Disease Control*, *Cryptosporidium* is the leading cause of recreational water illness and can survive for days in swimming pools even with adequate chlorine levels.

The EPA has reviewed and determined that **SeaKlear PRS traps** algae, *Cryptosporidium*, *E. Coli* and *Giardia* in the pool filter. PRS allows the pool filter to trap particles that are too small to be trapped by conventional filtration methods.

Call 1-866-99-KLEAR for a FREE book on Recreational Water Illness.



SeaKlear®
www.seaklear.com

U.S. Patent Nos. 7,157,009 / 5,362,717 / 5,204,452

*This product is tested and Certified by WQA against NSF/ANSI 60

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*Surveillance for Waterborne Disease and Outbreaks Associated with Recreational Water – United States, 2003 – 2004

SeaKlear PRS FAQs

How hard is SeaKlear® PRS® on the filter?

SeaKlear PRS works on all types of filters. DE, zeolite and recycled glass have better filtering capabilities than sand and are therefore more likely to have increased filter pressure from initial use. Noticeable pressure increases however have not been seen after the first backwash.

Can SeaKlear PRS be used in place of sanitizer or UV?

SeaKlear PRS is not a sanitizer and should not be used in place of any EPA registered sanitizer or UV unit. SeaKlear PRS should be used in conjunction with a proper sanitizer as another layer of protection in a total risk management program. SeaKlear PRS works by trapping microorganisms such as *Cryptosporidium* in stable flocs that are carried to the filter media and then filtered out. Health department guidelines for proper chlorine residuals, water balance and equipment maintenance should always be followed.

If I have UV, why do I need PRS?

Effectiveness of UV systems can be hindered in the presence of high turbidity in the water. High turbidity, for example, can cause a normally functioning UV system to be ineffective because the ultraviolet light waves are absorbed or refracted by the suspended particles. SeaKlear PRS can reduce turbidity rapidly and substantially, filtering particles all the way down to 0.5 micron. The result is dramatically improved water clarity.

How often should I backwash?

Regular backwashing should always be practiced according to the filter manufacturer's recommendations. Initial doses of SeaKlear PRS may expedite the need for backwashing due to the number of particles already present in the water. Once SeaKlear PRS is used regularly, and the filter has been backwashed or cleaned, the backwash cycle will return to normal and may even be extended. Regular use of SeaKlear PRS improves filter efficiency by allowing embedded dirt and oil in the media to be cleaned out.

How far apart can SeaKlear PRS Stage 1 and SeaKlear Stage 2 be applied?

For optimal performance, add SeaKlear PRS Stage 1 followed by Stage 2 four to six hours later. It is strongly advised that Stage 2 be added within 24 hours of adding Stage 1. Note: The longer the time between the additions of Stage 1 and Stage 2, the less effective the product will be at trapping microbes. It is always ideal to wait one turnover rate of the filter (six hours) before adding Stage 2.

How long will PRS remain active in a pool?

This is dependent on bather load and the amount of contaminant present in the water. SeaKlear PRS is consumed in the process of flocculation. Once SeaKlear PRS has flocced a contaminant, it will be trapped by the filter usually within one turnover rate (6 hours). Application rates should be evaluated individually based on bather load and current water conditions.



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For more information, or to receive a free book on Recreational Water Illness, call 1-866-99-KLEAR.

How is SeaKlear PRS different from a “regular” clarifier?

SeaKlear PRS is a natural, two-stage clarifier system. The EPA has reviewed and determined that SeaKlear PRS traps *Cryptosporidium* in pool filters. SeaKlear PRS technology works to enhance current filter capabilities down to 0.5 micron, which cannot be achieved by “regular” clarifiers. SeaKlear PRS should be used as part of a risk management program for preventing recreational water illnesses or in instances where pristine water clarity is desired. Note: Clarifiers that are synthetic based will actually add oil to the water that will then need to be removed.



Why not just bump up my chlorine levels, won't that clear and kill everything?

A good sanitizer is generally the first defense against fighting recreational water illnesses, however some pathogens, such as *Cryptosporidium*, are highly chlorine resistant. In order to kill Crypto with chlorine, it takes at least 9600 Contact Minutes (CT). Therefore, to effectively kill Crypto in 1 minute, the chlorine level would have to be 9600 ppm. Normal recommended chlorine levels are 1 to 3 ppm. Maximum health dept standards for open pool operations are typically 5 to 10 ppm. At 10 ppm it would take 960 minutes (16 hours) to kill Crypto at 7.0 pH.

How does PRS affect chlorine use?

In heavily used pools and spas, 70 – 85 percent of chlorine can be spent oxidizing organic contaminants instead of sanitizing waste. Seventy percent of the organic contaminants can be composed of oils, thus roughly fifty percent of the total chlorine added to the pool is consumed oxidizing oils. Because SeaKlear PRS can encapsulate oils, the chlorine is no longer consumed by oil oxidation and is freed to sanitize waste as needed. The reduction in organic contaminants results in a reduction in the amount of chlorine needed to maintain the same residual level of chlorine in the pool. The oil removal capacity of SeaKlear PRS alone accounts for substantial savings in chlorine use. SeaKlear PRS should also dramatically reduce the labor spent on cleaning tile water lines and diminish the need for enzymes. SeaKlear PRS also works to keep filters and ORP probes cleaner.

What are the dosage rates for PRS?

SeaKlear PRS Stage 1: 1 ounce per 5,000 gallons (must always be added before SeaKlear PRS Stage 2).
SeaKlear PRS Stage 2: 1 ounce per 5,000 gallons added at least four hours after SeaKlear PRS Stage 1.

When initially applying SeaKlear PRS or in cases of high turbidity, the dose for SeaKlear PRS Stage 1 and SeaKlear PRS Stage 2 should be tripled, but the proportion of SeaKlear PRS Stage 1 to SeaKlear PRS Stage 2 must always be maintained.

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