



we understand

# CRYPTO HAPPENS

Pulsar CRS™ System traps up to 99% of *Cryptosporidium*.

Pulsar CRS™ System is a water clarifier and coagulant built and designed to improve the removal of crypto in sand filters.

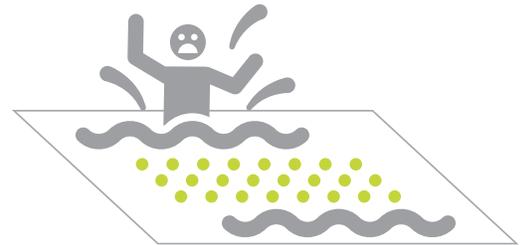
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# This is how the **Pulsar CRS™** System adds a layer of protection to your current risk management system.

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## 1 pool view

The water has become **contaminated with Crypto oocysts**, therefore requiring treatment with the **Pulsar CRS™** System.



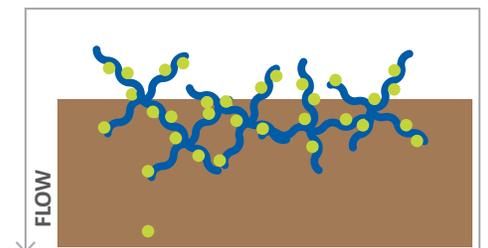
## 2 control panel view

By hitting the **CODE BROWN** button on the control panel, additional amounts of **Pulsar CRS™** Clarifier are added. Use with **Pulsar® Power Shock** as part of your complete risk management system.



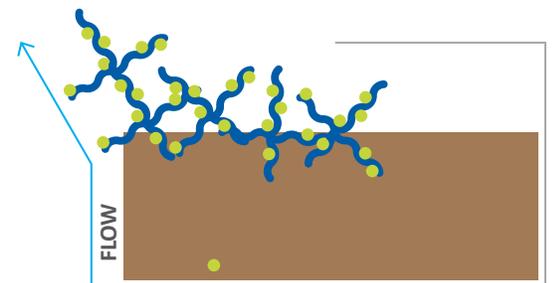
## 3 sand filter view

During sand filtering, the **Pulsar CRS™** System **traps and binds Crypto oocysts**.



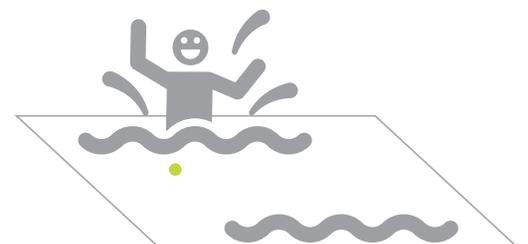
## 4 backwash view

During backwash, the **trapped and bound Crypto oocysts** are **taken out of the water / filter** and into the sewage system.



## 5 pool view

When used along with an appropriate risk management system, your water will be sufficiently remediated to be enjoyed by guests!



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# Have questions about the **Pulsar CRS™** System? **We've got answers.**

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## What is the Pulsar CRS™ System?

A simple, low cost method to provide bathers with an added layer of protection against one of the most dangerous pathogens found in today's recreational water, *Cryptosporidium*. Utilizing the **Pulsar®** Feeder's control panel, **Pulsar CRS™** System is a simple and convenient system. Operators simply monitor the product level and replace as needed. As an extra benefit, operators may supplement with additional amounts of product needed after the inevitable accidental fecal release (AFR) by initiating 'Code Brown' on the control panel.

- improves water clarity
- improves efficacy of UV systems
- reduces turbidity by an average of 37.5%
- affordable Crypto treatment

## Can this replace my sanitizer?

**Pulsar CRS™** Clarifier is not a sanitizer and cannot be used in place of any EPA registered sanitizer. It should be used in conjunction with a proper sanitizer as another layer of protection in a total risk management program. Local health department guidelines for proper chlorine residuals, water balance and equipment maintenance should always be followed.

## Why not just hyperchlorinate? 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. Per the Model Aquatic Health Code (MAHC), in order to kill Crypto with chlorine (without CYA), it takes at least 15,300 Contact Minutes (CT). Therefore, to effectively kill Crypto in 1 minute, the chlorine level would have to be 15,300 ppm. Normal recommended chlorine levels are 1 to 4 ppm. The maximum chlorine concentration for open pool operations, based on the MAHC, is 10 ppm. At 10 ppm it would take 1530 minutes (25.5 hours) to kill Crypto at 7.5 pH.

## Will I notice any changes in the operation of my filter?

Regular backwashing should be practiced according to the filter manufacturer's recommendations. More frequent backwashing may be needed when first using this product in sand filters, due to the number of particles already present in the water. Once 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 **Pulsar CRS™** Clarifier improves filter efficiency by allowing embedded dirt and oil in the media to be released during backwashing.

## If I have UV, why do I need Pulsar CRS™?

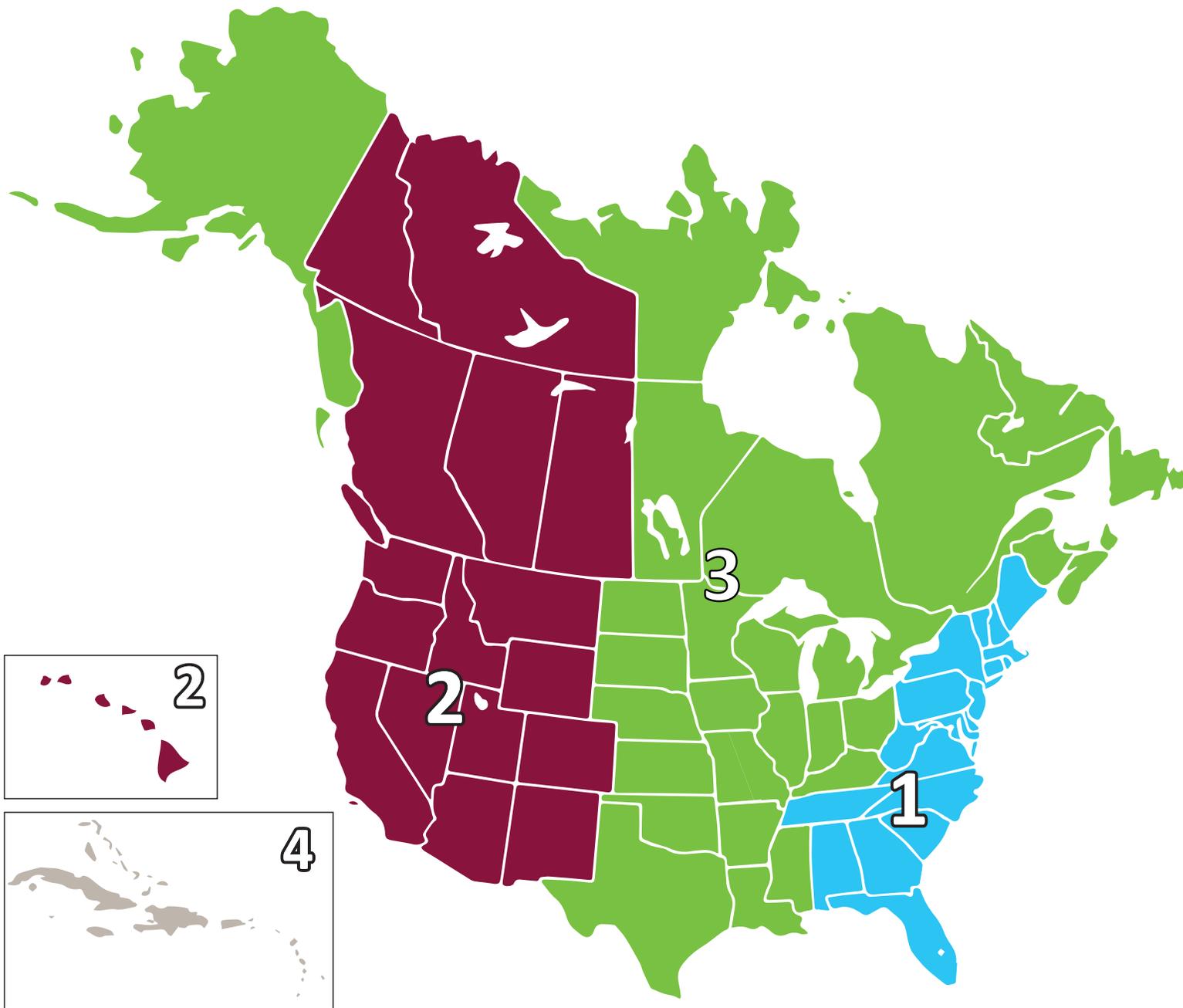
Effectiveness of UV systems can be hindered in the presence of high turbidity in the water. High turbidity, for example, can cause a normally functioning UV system to be ineffective because the ultraviolet light waves are absorbed or refracted by the suspended particles. **Pulsar CRS™** System can reduce turbidity rapidly and substantially, filtering particles all the way down to 2 micron. The result is dramatically improved water clarity.

## What do I need to get started?

The **Pulsar CRS™** System can be easily installed on both new and existing **Pulsar®** Feeders. Order the kit below to get started.

<b>79620</b>	<b>Pulsar CRS™ Kit</b> Pulsar® ¼" NPT Cord Grip for Flow Switch Cable Pulsar CRS™ Flow Switch Cable Pulsar CRS™ PCP Pump Pulsar CRS™ PCP Pump Mounting Kit Effector Flow Switch
<b>30490</b>	<b>Pulsar CRS™ Clarifier</b> (5 gallon)

System functionality is **integrated into the control panel.**



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