Product Q&A

1. What is FROG @ease?

FROG @ease is a brand of sanitizing systems that uses FROG Sanitizing Minerals and SmartChlor Technology, creating Fresh Mineral Water that's Cleaner, Clearer, Softer and Easier to maintain with up to 75% less chlorine* and far less work by shocking only once a month.

2. Is it okay for the FROG @ease System for Swim Spas to tilt in the water?

Yes. It's normal for the System to tilt because the SmartChlor inside may shift. When the System tilts at about 3/4 rotated in the water, it's time to shock with FROG Maintain nonchlorine shock. That maximizes the life of the SmartChlor Cartridge by providing up to one more week. When the System flips upside down, test your water with FROG @ease Test Strips; if the Out Indicator on the bottle is lighter than the Top Color on the Test Strip, it's time to replace the SmartChlor Cartridge.

3. What is SmartChlor Technology and how does it work?

SmartChlor is a time-released chlorine that automatically delivers sanitizing power to meet demand - it's smart. It maintains a consistent Free Chlorine level of only 0.5 - 1.0 ppm. It creates a Chlorine Reserve; when people use the swim spa, SmartChlor converts the Chlorine Reserve to Free Chlorine, taking care of the demand. Its self-regulating; it maintains a low Free Chlorine level of 0.5 - 1.0 at all times.

4. What is the Synergy of FROG Sanitizing Minerals and SmartChlor Technology?

SmartChlor has a unique effect on the silver, which increases its solubility in the water, ultimately making it more effective at killing bacteria. The Environmental Protection Agency, EPA, registered SmartChlor as a recreational water sanitizer at a Free Chlorine level of 0.5 ppm, only when used in conjunction with FROG Sanitizing minerals.

5. How does it minimize shocking to just once a month?

Because SmartChlor's unique technology automatically converts the Chlorine Reserve, which we'll consider "Total Chlorine," into Free Chlorine, the formation of chloramines is drastically reduced, so there's no need to shock when the Total Chlorine and Free Chlorine readings are different. When the System tilts at 3/4 rotated over in the water, or when the FROG @ease Test Strip reads "light" on the single color match, add FROG Maintain® non chlorine shock for swim spas. That will maximize the life of the SmartChlor Cartridge providing up to one more week.



At 3/4 tilt, shock with FROG Maintain

6. Will this Reserve show up on any other test strip?

Yes, but other test strips will show Total Chlorine and Free Chlorine ranges that are different than the way FROG @ease works, which causes confusion. There are no negative effects of Chlorine Reserve in the water.

8. How high will the Total Chlorine level reach at its peak?

On any other test strip you'll see an average Total Chlorine reading of 7 - 15 ppm. On the FROG @ease Test Strip, the SmartChlor Out Indicator color block represents 5.0 ppm Total Chlorine. When the Out Indicator color block is lighter than the Out Indicator, the SmartChlor Cartridge should be replaced.

9. Can the Free Chlorine ever be higher or lower than 0.5 - 1.0 ppm?

SmartChlor's chemical equilibrium state in water is pH dependent. Free Chlorine tends to be higher with lower pH and lower with high pH. Maintain a pH of 7.2 - 7.6 to keep the chlorine level consistently at 0.5 - 1.0 ppm.

10. Has this product been field tested?

Yes. We conducted significant testing with this product. Testers noticed several key benefits, including clearer water, far less shocking, a significant reduction in odors and a softer feel to the water. Plus, it's so much easier to maintain.

11. How are the odors reduced?

It starts with maintaining a lower Free Chlorine residual of 0.5 - 1.0 ppm than swim spas using other sanitizers, which require 2.0 - 4.0 ppm of Free Chlorine. SmartChlor's unique properties combined with FROG Sanitizing Minerals reduce the formation of chloramines, which are the odor causing agents that require shocking to remove.

12. What causes the minerals to get used up or lose effectiveness?

FROG Sanitizing Minerals include limestone, which is thinly coated with silver chloride. Silver ions erode until saturation is reached in the water. More silver ions are released only as needed for the life of the 4-month Cartridge. The limestone helps buffer pH and does not dissolve completely, which makes up the majority of the product's weight — that is what you can hear inside after the 4-month period.

13. Are FROG Sanitizing Minerals and SmartChlor Technology compatible with ozone, UV or other common swim spa treatments?

Yes, they are compatible if desired. However, FROG @ease is considered a complete sanitizing system for swim spas that needs only an occasional shock treatment.

15. Can you convert to FROG @ease without draining the swim spa?

All dichlor users can simply switch to FROG @ease for Swim Spas, however, if using bromine, biguanides or the cyanuric acid level is over 80 ppm, the swim spa must be drained and refilled.

Water Testing the FROG @ease Way

Because FROG @ease with SmartChlor Technology does not test the same way as dichlor tests, we recommend using only FROG @ease Test Strips, they are user tested for clarity and ease of use.

With FROG @ease Test Strips:

- One color match designates an Out Indicator. When lighter than this color, replace the SmartChlor Cartridge.
- Since the Free Chlorine remains consistently at 0.5-1.0 ppm there is no need to test for it.
- FROG @ease Test Strips also test for pH, Total Alkalinity and Total Hardness.

If Using Any Other Test Strip, Keep in Mind:

- 1. Like all other swim spas, water should be balanced properly.
 - pH 7.2 7.6
 - Total Alkalinity 80 120 ppm
 - Total Hardness 150 250 ppm
- 2. Total Chlorine will always be higher than Free Chlorine until the Cartridge is empty.
 - SmartChlor Technology has a Chlorine Reserve that reads as Total Chlorine.
 - This Chlorine Reserve starts out at higher than normal chlorine levels and slowly depletes over the 3-4 week life of the cartridge.
- 3. The Free Chlorine reading maintains an equilibrium state of 0.5 1.0 ppm.



- As long as the water is balanced, a FROG @ease Mineral Cartridge is being used (not longer than 4 months) and the FROG @ease SmartChlor Cartridge is not empty, the Free Chlorine level will stay consistently within 0.5 1.0 ppm.
- The Chlorine Reserve is continuously converting to Free Chlorine to meet the demand.