# SPA FROG®

# **Floating System Instructions**

SPA FROG® sanitizes your hot tub by creating





because it kills bacteria two ways

Clearer

because it helps keep pH balanced Softer

because there's up to 50%\* less bromine

Easier with pre-filled cartridges for no mess,

or measuring

\* Compared to the minimum ANSI recommended bromine level of 2.0 in a residential hot tub.

# **Step 1: Prepare the Hot Tub**

1. Cu



## Fill hot tub with fresh water.

If using source water that is high in iron or other metals, see your dealer before filling the hot tub. It may require the use of a metal control product.



Clean and replace filter cartridges. (Follow manufacturer's instructions).

## Balance water by following STEPS $\mathbf{a} - \mathbf{d}$ in order.

**IMPORTANT:** Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with the jets on and wait 6 hours before testing again and adding any additional balancing chemicals.

## **Water Balance Guidelines**

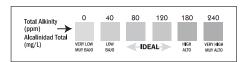
7.2 - 7.8Total Alkalinity: 80 - 120 ppm Calcium Hardness: 150-250 Total Dissolved Solids: <1500

a. Take a water sample from the hot tub and dip a FROG Test Strip into it.





**b.** Look at the **Total Alkalinity** reading first. Adjustments should be made to bring the Total Alkalinity in the range of 80 - 120 ppm prior to making any adjustments to pH even if it throws pH off further.



C. After Total Alkalinity is in range, test for pH. It should be between 7.2 and 7.8. If higher or lower, add a pH adjuster.



**Q.** Lastly **test for Calcium Hardness.** It should be **between** 150 and 250 ppm. If higher, partially drain the hot tub (about 6 inches) and fill with water low in calcium. If lower, add Calcium Increaser.

If balancing takes longer than 2 days shock the water and maintain a chlorine level while continuing balancing.



Very Important! Establish an initial residual of 1.0-2.0 ppm bromine or chlorine. For best results use FROG Jump Start (EPA Reg. #53735-12) that quickly dissolves with an effervescent

action - one packet per 500 gallons. Do not use a non-chlorine shock. Confirm proper residual amount before employing SPA FROG Floating System.

Heat water to the manufacturer's recommended

Begin routine hot tub care (see Step 4: Routine Hot Tub Care ) as soon as hot tub is prepared.



Manufactured by: King Technology, Inc. 530 11th Ave S, Hopkins, MN 55343 U.S.A. 952-933-6118 • Customer Service 800-222-0169 FAX 952-933-2206 www.FrogProducts.com

Made in U.S.A. Patents: www.KingTechnology.com/IP EPA Est. No.: 071209-AZ-001 E092816553091643R8N

# **Step 2: Set the Cartridges**

Bromine



The SPA FROG Floating System has two replaceable cartridges.

The combination provides the Fresh Mineral Water® benefits of cleaner, clearer and softer water that's easier to take care of.



Minerals

Set the mineral cartridge to #6 (hold the bottom and turn the top until 6 appears in the setting window). No further adjustments are necessary for the life of this cartridge.

Set the bromine cartridge to the setting that matches your hot tub size in gallons.



System Setting Chart		
200 Gallons	0	
250 Gallons	1	
300 Gallons	1	
350 Gallons	2	
400 Gallons	3	
450 Gallons	4	
500 Gallons	5	
550 Gallons	5	
600 Gallons	6	



For one week test the water daily with FROG Test Strips and adjust cartridge up or down by 1 setting per day until the color on the test strip matches the ideal FROG bromine range of 1.0 to 2.0 ppm.

# **Step 3: Put the System to Work**

1.



Insert both cartridges into the green floating holder by pushing them into the openings until they stay in place.



Let the Floating System freefloat in the hot tub.

3.



When using the hot tub, simply remove SPA FROG Floating System, drain the water into the hot tub and invert on the side of the hot tub.



**REMEMBER TO RETURN SPA** FROG FLOATING SYSTEMS TO **HOT TUB WHEN YOU GET OUT!** 

## **Replacing Cartridges**

## Replace blue MINERAL CARTRIDGE every four months.



- a. Discard it in the trash even if it appears to have media left inside.
- **b.** Don't attempt to reuse: the minerals are spent after 4 months.
- c. Use the enclosed stickers to remind you when it's time to replace.

## Replace yellow BROMINE CARTRIDGE when empty.



a. Life of cartridge varies depending on hot tub size and number of users.



b. Drain water from cartridge to ensure it is empty.



c. Discard in trash or recycle.

# **Step 4: Routine Hot Tub Care**



Drain and refill hot tub as directed by your hot tub manufacturer or every four months when FROG minerals need to be replaced.



Run filtration system as recommended by your hot tub manufacturer.



Regularly test water. Maintain pH, Total Alkalinity and Calcium FROG Test Strips.

**NOTE:** Water balance is affected by bather load, chemical usage, evaporation and the makeup of source water so maintaining water balance regularly is important.





Maintain at least 1.0 ppm bromine level at all times.

Note: Bromine or chlorine levels are lower only when used with FROG minerals.





Shock the hot tub once a week or as needed with a non-chlorine

Heavily used hot tubs may require more frequent shocking.

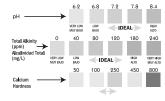




Replace mineral cartridge and bromine cartridges as directed in Step 3 #1.

# **Troubleshooting**

Cloudy Water or Low-Bromine Levels



• Check water balance. Ensure pH, Total Alkalinity and Calcium Hardness are

- · Check Bromine Cartridge. If empty, replace following directions in Step 3.
- Make sure your Mineral Cartridge is not older than 4 months as it will be ineffective and more bromine will be required to maintain the hot tub until you replace the minerals.
- Shock the hot tub with a non-chlorine shock to regain clarity.

# High Bromine Levels



• Remove the system from the hot tub until the bromine level is down to 2.0 ppm.



• Lower the Bromine Cartridge setting by 1 number and replace system in the hot tub.



• Test in 24 hours. Repeat process until bromine level stays within 1.0 to 2.0 ppm.



Specifically Designed for Mineral Treated Spas

# **SHOCK TREATMENT**

## ACTIVE INGREDIENT

Potassium Monopersulfate	32.18%
Other Ingredients	67.82%
TOTAL	100.00%

<sup>\*</sup>Equivalent to 3.26% active oxygen

# DANGER KEEP OUT OF REACH OF CHILDREN

CORROSIVE TO EYES, SKIN AND MUCOUS MEM-BRANES. MAY BE HARMFUL IF SWALLOWED. Avoid contact with eyes, skin and clothing. Wash thoroughly with soap and water after handling. Avoid breathing dust. SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

Net Weight: 8 Ounces

Shock Treatment is a powerful oxygen-based oxidizer. When used regularly, this product will help eliminate contaminants introduced by bathers and environmental factors like rain and wind. This product will not raise chlorine levels or produce combined chlorine. This product restores sparkle and darily to spa water. It will not increase calcium hardness or stabilizer levels. This product contains no chlorine no rother risinfectants.

### DIRECTIONS FOR USE:

This product is not a sanitizer or algaecide. For routine disinfection of spa water or algae control, use an EPA-registered product according to its label instructions. For routine control of microorganisms in spa or hot-tub water, use an EPA-registered Mineral Sanitizer according to its label instructions.

### READ ALL PRECAUTIONS REFORE USE

Wear goggles and gloves when handling. Use only in residential spas. Add only when no bathers are present.

## DIRECTIONS FOR SPAS AND HOT TUBS:

This product contains no sanitizer and should be used for oxidizer treatment only. Regular use of this product will remove most of the contaminants that accumulate in spa water.

## WHEN TO ADD MINERAL BUDDIES SHOCK TREATMENT TO YOUR SPA:

Add this product to spa water after every use, or according to the instructions on your Mineral Sanitizing System.

## HOW TO USE MINERAL BUDDIES SHOCK TREATMENT TO KEEP SPA WATER SPARKLING CLEAR:

- Add 2 ounces (4 tablespoons) of this product per 300 gallons of water as directed on your Mineral Sanitizing system. MDTE: Apply the required amount of this product evenly throughout the spa with the pump running. Add the full amount at one time using a clean and dry plastic scoop.
- 2. Run the pump for at least 30 minutes.
- Turn the jets on and off once or twice after adding this product to improve the treatment.

## FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing.
Rinse skin immediately with plenty of water for 15-20 minutes.
Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF SWALLOWED: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

## PHYSICAL OR CHEMICAL HAZARDS: STRONG OXIDIZING AGENT.

Never add water to product. Always add product to large quantities of water. Do not mix with other chemicals. Do not add this product to any chemical feeder. Contamination with moisture, organic matter or other chemicals may cause a violent reaction leading to fire or liberation of hazardous gases. In case of contamination or decomposition, do not reseal container. If possible, isolate container in well-ventilated area. Flood with large amounts of water.

### STORAGE AND HANDLING:

Keep dry and in original container. Store in a cool, dry, wellventilated place. Do not store with chlorine, bromine, or liquid acids. Keep container tightly closed when not in use.

DISPOSAL: Use entire contents, then triple rinse and offer for recycling or dispose in accordance with state and local regulations. To dispose product in partly filled containers or for large quantities call your local solid waste agency for disposal instructions. Do not

reuse empty container.

NOTE: Buyer assumes
all responsibility for
safety and use not in
accordance with directions





**Specifically Designed for Mineral Treated Spas** 

# PH & ALK UP

Increases the pH and Alkalinity of Spa Water

ACTIVE INGREDIENT: 

# CAUTION **KEEP OUT OF REACH OF CHILDREN**

SEE SIDE PANEL FOR FIRST AID AND ADDITIONAL PRECALITIONARY STATEMENTS

Net Weight: 8 Ounces

Mineral Buddies pH & Alk Up will increase the pH and alkalinity of spa water if needed. The total alkalinity of spa water should be maintained between 80 and 150 ppm. The pH should be within 7.2 to 7.8 ppm.

## DIRECTIONS FOR USE:

Mineral Buddies pH & Alk Up should be used as necessary when pH is below 7.2. NOTE: For best results, dissolve granular products first by adding to a small, plastic pail filled with water. Then, apply the solution to the spa water.

pH	Amount of pH Up to use per 500 gallons
6.8 - 7.2	1 oz. (2 Tablespoons)
below 6.8	2 oz. (4 Tablespoons)

- Determine the amount of product to use.
- 2. Make sure equipment is OFF.
- 3. Add applicable amount of product to the spa water.
- Turn on circulation system for 1 3 hours.
- Retest water after 3 hours.
- 6. If pH is still below 7.2, repeat steps 1 5.

CAUTION: Avoid contact with skin or eyes. Wash thoroughly after handling. This product may be irritating or harmful if taken internally. Do not store this product in close contact with chlorine products. Do not mix with any other chemical - mix only with water, NOTE: Draining and cleaning of the spa or hot tub is recommended every 3 months. Never mix this product with any dry or liquid chlorine product as a dangerous reaction may occur.

## FIRST AID:

EYE CONTACT: Hold eve open and rinse gently with cool water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. IF INHALED: Move person to fresh air. If irritation occurs, get medical attention, SKIN CONTACT: Wash all affected areas with soap and water, Get medical attention if irritation occurs and persists. Wash clothing with warm soapy water before reuse. IF SWALLOWED: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. If symptoms persist contact

## STORAGE AND DISPOSAL:

a doctor or a poison control center.

STORAGE: Store in a cool, dry place. Keep product in tightly closed container when not in use. Store out of reach of children and away from heat. **DISPOSAL:** Place empty container in trash or offer for recycling if available. To dispose product in partly filled containers or for large quantities call your local solid waste agency for disposal instructions. Do not reuse empty container.

NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.





Specifically Designed for Mineral Treated Spas

# PH & ALK DOWN

Decreases the pH and Alkalinity of Spa Water

## **ACTIVE INGREDIENTS:**

Sodium Bisulfate	95.0%
Inert Ingredients	5.0%
TOTAL	100.0%

# **DANGER • POISON**KEEP OUT OF REACH OF CHILDREN

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

Net Weight: 9 Ounces

Mineral Buddies pH & Alk Down will decrease the pH and alkalinity of spa water.

The total alkalinity of spa water should be between 80 and 150 ppm. The pH should be between 7.2 to 7.8. High pH can cause scaling and/or cloudy water.

### DIRECTIONS FOR USE:

Mineral Buddies pH & Alk Down should be used as necessary when pH levels are above 7.8. NOTE: For best results, dissolve granular products first by adding to a small container of water. Then, apply the solution to the spa water.

- 1. Make sure all equipment is OFF.
- 2. Add \( \text{vz.} \) (1-1/2 tsp.) of this product for every 500 gallons of spa water.
- 3. Turn ON circulation system for 30 minutes.
- 4. Retest water. If pH is still above 7.8, repeat steps 1-3.

## DANGER - CAUSES SEVERE BURNS

This product contains sodium bisulfate. Avoid contact with skin, eyes, or clothing. Do not mix with household chemicals. Do not mix directly with other spa chemicals. Harmful if swallowed.

### FIRST AID:

IF SWALLOWED: Call a poison control center or doctor immediately. If conscious, immediately give 2 to 4 glasses of water, and do not induce vomiting unless told to do by poison control. **EYE CONTACT:** Hold eye open and rinse gently with cool water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **SKIN CONTACT:** Immediately flush with water for 15 minutes. If burns occur obtain medical attention

### STORAGE AND DISPOSAL:

**STORAGE**: Keep dry and in original container in a cool, dry, well-ventilated place. Do not store with chlorine, bromine, or oxidizing agents. Keep container tightly closed when not in use.

DISPOSAL: Use entire contents, then triple rinse and offer for recycling or dispose in accordance with state and local regulations. To dispose product in partly filled containers or for large quantities call your local solid waste agency for disposal instructions. Do not reuse empty container.

**NOTE:** Buyer assumes all responsibility for safety and use not in accordance with directions.



Specifically Designed for Mineral Treated Spas

## **CALCIUM UP**

Establishes the Proper Water Hardness to Avoid Corrosion of Equipment and Spa Surfaces

ACTIVE INGREDIENT:
Calcium Chloride ......100%

# **CAUTION**KEEP OUT OF REACH OF CHILDREN

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

Net Weight: 8 Ounces

Water hardness describes the total amount of calcium in spa water. Mineral Buddies Calcium Up brings water hardness into the proper range. Low hardness can result in corrosion of equipment and spa surfaces. The ideal hardness level is 150 - 400 parts per million (ppm).

## DIRECTIONS FOR USE:

Read entire label and use strictly in accordance with hazard statements and directions.

Establish the current level of calcium hardness in the spa by the use of a suitable test kit. The acceptable range for the level of calcium hardness in a spa is 150-250 ppm. Any required amount of Mineral Buddies Calcium Up should be applied pre-dissolved in at least a gallon of water with the spa pump operating in high speed mode for a minimum of 30 minutes. The maximum dosage should not exceed 3 tablespoons per 100 gallons of spa water. If more Mineral Buddies Calcium Up is required allow a minimum of two (2) hours between doses to allow the product to get completely into solution.

TO INCREASE CALCIUM HARDNESS			
100 Gal.	1 Tablespoon	25 ppm	
250 Gal.	2½ Tablespoons	25 ppm	
400 Gal.	4 Tablespoons	25 ppm	

STORAGE AND DISPOSAL: Keep this product in original tightly closed container away from children and pets when not in use. Do not reuse container, but place in trash collection.

HAZARD STATEMENTS: Contains calcium chloride. CAUTION: may cause skin and eye irritation. May be harmful if swallowed. Prolonged exposure may cause skin and eye burns. May be irritating to nose and throat. Do not get in eyes, on skin, or on clothing. Wear safety glasses and rubber gloves when handling this product. Avoid breathing dust. Do not taste or swallow. Wash hands thoroughly after use. If product gets on clothing remove and wash before reuse. Do not mix with other chemicals.

### FIRST AID

Have the product container or label with you when calling poison control center or doctor, or going for treatment. IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor immediately for treatment advice. IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin

immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice. IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallOD NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage. NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.

