

The Answer
to Clean, Clear
Water!



amēse
SPA CARE

Important Chemical Safety Procedures

1. Always keep chemicals out of reach of children.
2. Read product labels carefully prior to use.
3. When dissolving, always add chemicals to the water. Do not add water to the chemicals. Some dry chemicals should be dissolved prior to adding them to the spa. Using a clean container, dip some water from the spa. Mix until dissolved, then add to circulating water.
4. CAUTION: Do not add chemicals together. Add them separately to the spa water.
5. All chemical products should be stored in a cool, dry, well-ventilated area where the average temperature does not exceed 90°F. Keep storage area clean of debris such as rags, newspaper, or combustible materials.
6. Keep chemicals away from open flames or other heat sources. Do not smoke near chemicals. If a dry chlorine chemical fire should occur, use water only. Do not use a dry chemical fire extinguisher to put out the fire.
7. When adding chemicals, always have the water circulating in the spa with jets in a downward circular pattern for better chemical distribution. Add chemicals to the spa water one product at a time. Allow several minutes between any new chemical additions using the jet action to evenly distribute the product throughout the spa water.
8. Wait approximately 15 minutes after adding chemicals to the spa. Re-test before using.
9. If you have any questions or concerns about the correct procedures for handling chemicals, please contact your spa retailer.



Understanding Spa Water Care

Spas and Pools are Different

It's important to understand that a spa is not just a small swimming pool and that the care of a spa needs to be handled differently.

- A spa is kept at temperatures up to 104° and pool chemicals are designed for cool water.
- The ratio of people per gallons in a spa is very different than a pool. Four people in a spa is the equivalent of having 300 people in a typical backyard pool. This increased "bather load" increases the residue from soaps, perfumes, body oils, cosmetics and other contaminants. *Always use water treatment products that are designed for spa and hot tub use.*

Water Balance

Water balance is the interrelation of several factors that determine the quality of the spa water. The effectiveness of chemicals and other additives are dependent on all these factors working together or "in balance".

The primary elements to water balance are:

- A. pH and Alkalinity Levels
- B. Oxidizing or "Shocking"
- C. Sanitizing

A. pH and Alkalinity Levels

Alkalinity

Alkalinity acts as a buffer to prevent the pH level from changing as other substances are added to the water. Proper alkalinity is directly related to the stability of the pH. The Alkalinity should be between 80 - 120 ppm. Alkalinity levels below 80 ppm will make it very difficult to stabilize the pH level. Levels above 120 ppm may increase pH levels and cause cloudy water, scaling and decreased efficiency of the sanitizer.

pH Level

The pH level measures the relative acidity and basicity of the water. The ideal pH level is 7.2 - 7.8. When the pH level falls below 7.2 the water can become corrosive. Low pH can cause damage to metal in the equipment pack and heaters, excessive sanitizer consumption, and skin irritation. A pH level above 7.8 can be scale forming and will allow metals or minerals in the water to form deposits and stain spa surfaces.

Understanding Spa Water Care (con't)

B. Oxidizing or “Shocking”

Once bacteria and other wastes are neutralized by the sanitizer, they stay in the water unless oxidized or “shocked”. Called chloramines or bromamines, they create dull, cloudy water and can cause odor and eye or skin irritation. Shock Treatment rids your spa of these wastes for clear, sparkling water. Shocking is recommended once a week or whenever the water appears dull or cloudy or has a strong chemical odor. **Important! A strong chemical odor indicates that the spa needs to be shocked – not that there is too much chlorine in the water. A properly balanced spa that is shocked regularly will not have a chemical odor.**

C. Sanitizing

You may choose to use chemical sanitizer to treat your spa water, or add an alternative sanitizing method that reduces chemical usage:

Ozone System – The use of an ozone generator greatly reduces the amount of chemical sanitizer you need in the water. Ozone delivers activated oxygen gas into the spa water via a small ozone injector. The ozone gas combines with the contaminant to sanitize the water. Although sometimes promoted as a stand-alone chemical free alternative, it is recommended that you maintain a small residual of chlorine or bromine in the water while using any ozone system. Supplementing the Ozone System with sanitizer will control and prevent bacteria growth. Instead of the normal 3 - 5 ppm of sanitizer recommended for spas without using an ozone system, you only need to maintain a 0.5 ppm level of chlorine or bromine when using an ozone generator.

Mineral Sanitizer – For silky smooth water and increased sanitizer effectiveness, we recommend the addition of a Mineral Sanitizer. The systems shown can be dropped neatly inside the spa filter, float independently, or fit inside the spa wall on certain spa brands. The following Mineral Purifiers are compatible and will work in harmony with an Ozone System:



Nature²™ Mineral Sanitizer

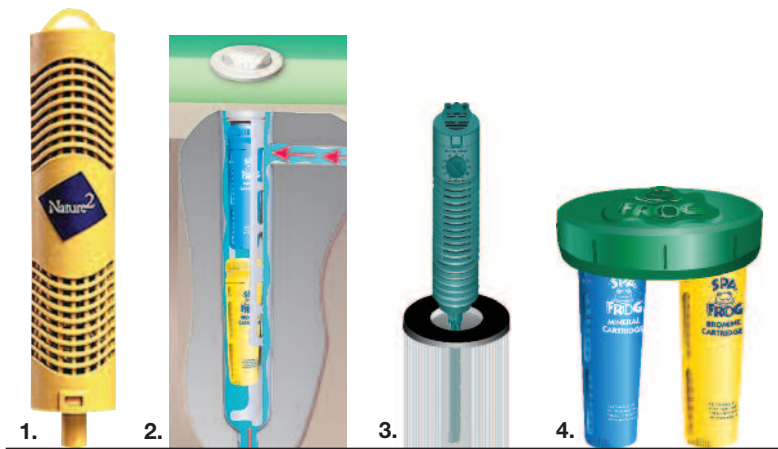
The Nature² Cartridge fits neatly inside the core of the spa filter and slowly releases metallic ions. Nature² works in conjunction with a minimal Chlorine sanitizer level of 0.5 ppm. (Bromine is not recommended for use with Nature²). The Nature² Mineral Sanitizer will last for four months. (Figure 1)

Spa Frog™ Mineral Sanitizer

The Spa Frog system has more options regarding dispensing the minerals into the water – and also offers a companion Bromine cartridge to maintain a sanitizer residual. The Frog Mineral Disinfectant needs to be replaced every four months.

- Some spas are manufactured with a housing in the spa wall that holds the mineral and bromine cartridge. (Figure 2)
- Like the Nature² purifier, there is a filter core version of the Spa Frog that inserts into the spa filter. (Figure 3)
- A floating system is available for spas without a built-in wall housing if you wish to use the companion Frog Bromine Cartridge with the Frog Mineral Disinfectant. (Figure 4)

Note: Bromine canisters need to be monitored and replaced when empty.



Water Treatment 1, 2, 3

Balancing the Water

Important! Always circulate the water for at least 15 minutes after making any chemical additions and before adding any additional products.

1. Testing

Test the spa water using a water test strip (see label for easy dip and read directions).

2. Adjusting

Determine the pH and alkalinity level of the water using the color comparison chart on the bottle. If changes need to be made to the pH and/or alkalinity level, always balance the alkalinity before attempting to balance the pH. The product(s) you will use to adjust pH and/or alkalinity are **pH & Alkalinity Increase** or **pH & Alkalinity Decrease**. Make any chemical additions per the directions on the bottle and then test and repeat if necessary until all readings are in the desired range.

3. Sanitizing

After pH and Alkalinity levels are in the recommended range, you can now establish a sanitizer residual. Add sanitizer until the recommended level of sanitizer has been reached:

- 3 – 5 ppm
If using Chlorine or Bromine as the primary sanitizing method.
- 0.5 ppm
If using an Ozone System or Spa Mineral Purifier.

Follow the manufacturers directions if using a Mineral Purifier. The Nature² system works with Chlorine and the Spa Frog system works with chlorine or bromine. **Important! The Nature² and the Spa Frog Mineral Sanitizer need to be replaced every four months.**





Water Care Schedule

Now that you know how to balance the water, you just need to establish a regular schedule to monitor it.

Amerse™ products are classified by easy to follow usage guidelines. Color-coded labels indicate whether the product should be used to Sanitize, used Weekly, Monthly, when Filling, or As Needed (if special water conditions arise).



FILLING

Since water characteristics vary depending on the local water supply, you may have to “fine tune” the spa water because of these variances. Your dealer may suggest the use of the following products when filling the spa based on your water conditions:

Metal and Stain Control

If minerals such as calcium, iron, copper or manganese exist in your water supply, they can stain spa surfaces. **Metal & Stain Control** will prevent spa staining. Add per label directions each time you freshly fill the spa with water. As a preventative treatment, use 2 ounces weekly or whenever you add fresh water to the spa.



SANITIZE

You should maintain the recommended sanitizer level at all times using **Chlorine** or **Bromine**. Test the sanitizer level on a regular basis and especially before and after each spa use.



Helpful Hint!

For easy water testing, try the TruTest Digital Test System. The digital TruTest reader “analyzes” the test strip and provides instant results for Chlorine or Bromine, Total Alkalinity, and pH!

Water Care Schedule (con't)



WEEKLY

The following products should be added once a week:

Crystal Clear Clarifier

Microscopic particles can pass right through the spa filter and create cloudy water. The use of **Crystal Clear Clarifier** combines these microscopic particles into larger particles that can be trapped in the filter to clear cloudy water.

Shock Treatment

Sanitizer combines with bacteria and neutralizes it, however, the used sanitizer/bacteria particle is still present in the spa water. Used sanitizer in the water will emit a chemical odor and cause cloudy water. To oxidize, or rid the spa of this used sanitizer, use **Shock Oxidizer** once a week.



AS NEEDED PRODUCTS

Foam Eliminator

If foam appears in your tub, the action of the jets will keep it from dissipating. The use of **Foam Eliminator** will instantly rid your spa water of foam.

pH & Alkalinity Increase

pH & Alkalinity Decrease

These two products work to raise or lower the pH & Alkalinity levels in the spa and are only needed if the test strip indicates the levels are not in the ideal range.

Calcium Hardness Increase

It is critical to have some calcium in your water, however the level of calcium should be between 150 – 400 ppm. High calcium levels can cause scale build-up on spa surfaces and equipment. Your spa will be protected against high calcium by using **Metal & Stain Control** when initially filling your spa. Low calcium levels can cause spa water to become highly corrosive and damaging to the spa equipment and plumbing. To raise Calcium levels, use **Calcium Hardness Increase**.



Spa Maintenance

Proper water treatment and regular spa maintenance can seem overwhelming to a new spa owner. Rest assured, it's not that difficult to maintain crystal clear water and a great looking spa.

The Amerse™ Spa Care regimen breaks down maintenance tasks into an easy to follow Weekly, Monthly and Every 4 Months schedule. Just keep this guide handy and within reach and you will enjoy your spa for years!

Weekly Maintenance

1. Debris

Remove any debris and leaves from the skimmers and suction intake strainers on the inside of the spa. Blocked intakes can greatly impede the flow of water through the jetting and filtration system. Other grit and debris that is tracked into the spa should be removed with a spa vacuum or it can scratch the spa interior.

2. Water Line

To avoid the build-up of oils and lotions at the water line, float an Amerse Beach Ball Scum Absorber in the skimmer of the spa. The unique foam material absorbs more than 40 times its weight in oils that can cause an oily residue on spa surfaces as well as coat the surface of the filter.



Spa Maintenance (con't)

Monthly Maintenance

Cover Care

It is recommended that you use **Cover Care Cleaner** as needed to keep the spa cover clean and conditioned. Proper care of the cover will increase the life and keep it looking great in even the harshest conditions. Do not use regular household products or products that contain silicone, steel wool or bleach.

Filter Care

We cannot stress the importance of a clean filter for proper water filtration. Dirty filters can restrict water flow, cause hazy water, and prevent your chemicals from working properly. Many water treatment products clear or clarify the water by clumping microscopic particles and minerals together so that these larger particles can be effectively trapped in the filter. A filter clogged with debris and other deposits will not effectively do its job. Clean the filter once a month with **Filter Revive** and replace it every 6 months.

Hint: Keep an extra filter on hand so that you always have a clean one ready for immediate spa enjoyment.





Every 4 Months

Draining the Spa

The average spa needs to be drained every 3 – 4 months. After several months of continually adding chemicals to the water and introducing body oils and lotions tracked in by bathers, the water will be difficult to manage and you will notice that the chemicals are not as effective as usual. You may also notice excessive foaming. More frequent draining may be required depending on use.

If you are using a Mineral Purifier, it should be replaced every 4 months. Use that as a benchmark to drain and re-fill the spa. If you need to drain the spa prior to four months, remove the Mineral Purifier, rinse thoroughly, and replace after you have re-filled the spa. The Mineral Purifier will continue to work for the remainder of the four month period.

Filling the Spa

Fill the spa with fresh water and balance the water as described in the Water Treatment section. A **Great Barrier Pre-Filter** may be used to reduce minerals and contain sediments that may enter the spa during the filling process.

Helpful Hint!

Prior to draining the water, use **Swirl Away** to remove any build-up of residue in the plumbing lines. The use of Swirl Away keeps the internal plumbing system clean, enhances water flow from the jets, and increases chemical efficiency. Swirl Away will also make the interior of your spa shell shine.



Troubleshooting Guide

C = Cause S = Solution

CLOUDY WATER

- C: Inadequate filtration or dirty filter.
- S: Check that the filter is securely attached. Clean or replace filter.

- C: Water is not balanced.
- S: Shock water with **Shock Oxidizer** and test water with a Water Test Strip. Adjust sanitizer level, pH, and alkalinity levels as needed.

- C: Unfiltered particles or chemically saturated water.
- S: Use **Crystal Clear Clarifier** to combine particles; or drain the spa, clean and refill.

CHEMICAL ODOR

- C: Too many chloramines/bromamines (used sanitizer) in the water.
- S: Shock water with **Shock Oxidizer** then adjust sanitizer level as necessary.

MUSTY ODOR

- C: Not enough sanitizer in water — bacteria or algae in water.
- S: Add **Chlorine** or **Bromine** sanitizer as necessary and shock. Re-adjust sanitizer level if necessary.

YELLOW WATER

- C: Low pH.
- S: Adjust pH with **pH & Alkalinity Increase**.

FOAMING

- C: High concentration of body oils, lotions, or soaps as well as high temperatures and excessive contaminants.
- S: Use **Foam Eliminator** and adjust pH and sanitizer levels if needed.

ERRATIC PH TEST COLOR

- C: Sanitizer level is too high. (See TOO MUCH SANITIZER IN THE WATER)
- S: Test pH again when sanitizer level is below 5 ppm.



FAILURE TO GET A SANITIZER READING ON TEST STRIP

- C: Sanitizer level is too low.
- S: Add **Chlorine** or **Bromine** until the sanitizer level tests in the recommended range.

- C: Algae present.
- S: Dirty water will consume the sanitizer as soon as it is added. Add more **Chlorine** or **Bromine** until the sanitizer tests and stays in the recommended range.

- C: Test strip remains “white” even after sanitizer has been added.
- S: Sanitizer level is extremely high. It can bleach the reagents on the test strip and give a false reading. See below.

TOO MUCH SANITIZER IN THE WATER

- C: Too much **Chlorine** or **Bromine** added or dispensed into the spa.
- S: Remove the spa cover and activate jets with the air control open. Allow jets to run for 30 minutes. Test water with a Water Test Strip to see if desired level has been reached. Do not use the spa until the sanitizer level is below 5 ppm.

EYE OR SKIN IRRITATION

- C: Contaminants or excessive amount of chloramines/bromamines in water.
- S: Shock water with **Shock Oxidizer**. Adjust sanitizer level.

- C: pH level is low.
- S: Adjust pH level as needed with **pH & Alkalinity Increase**.

CORROSION OF METAL

- C: Low pH level.
- S: Adjust pH level with **pH & Alkalinity Increase**.

GREEN WATER/ALGAE

- C: Low sanitizer level or high pH.
- S: Adjust pH with **pH & Alkalinity Decrease**. Add **Chlorine** or **Brominating Tablets** to sanitize if necessary.

Glossary of Terms and Products

Alkalinity — The concentration of alkaline materials in the water. Proper alkalinity is directly related to the stability of the pH. High alkalinity will make the pH impossible to adjust. Low alkalinity will make the pH unstable and difficult to maintain.

Bacteria — The germs that contaminate your spa water.

Balanced Water — The correct balance of alkalinity, pH and sanitizer.

Bromamines — The result when Bromine combines with bacteria.

Brominating Tablets — A bromine based sanitizer.

Bromine Floater — When using Brominating Tablets, the Bromine Floater is designed to float in the spa to gradually dispense the tablets.

Calcium Hardness — The amount of dissolved calcium in the spa water. This should be approximately 200 - 400 ppm. High levels of calcium can cause cloudy water and scaling. Low levels of calcium can cause permanent harm to the equipment.

Calcium Hardness Increase — Increases calcium levels in your water to avoid damage to the equipment seals and metal in your spa. Especially needed if using soft water.

Chloramines — The result when chlorine combines with bacteria.

Chlorine Demand — The amount of chlorine that must be added to the spa to destroy existing bacteria and algae and establish a chlorine residual.

Chlorine Residual or Free Chlorine — The available chlorine left in the spa water to destroy harmful organisms after the Chlorine Demand has been met. The correct amount of free available chlorine is 3 - 5 ppm.

Chlorine Sanitizer — A fast dissolving, granular product used for sanitation of the spa water. Dispensed manually into the water as needed.

Crystal Clear Clarifier — Restores clarity to dull water by combining unfilterable microscopic particles into larger particles so that they can be effectively filtered.

Filter Revive — Keeps your filter operating efficiently by removing grease, grime and other build-up that can impair the filtration process.

Foam Eliminator — Instantly rids the spa of undesired foam.

Go Brom — Establishes an immediate bromine reserve in a freshly filled spa without waiting for the Bromine Floater to slowly dispense a bromine reserve into the spa water.



Metal and Stain Control — Rids spa of minerals and metals that can interfere with filtration, affect sanitizer efficiency and stain spa surfaces. Necessary if you have well water or water with a high metal/mineral concentration.

Nature² Mineral Sanitizer — A natural, spa mineral purifier that controls bacteria and prevents algae from forming. Greatly reduces the amount of chemical sanitizer required to maintain healthy spa water.

Ozone Generator — A device that produces bacteria killing ozone gas to assist in water sanitation. The use of an ozone generator significantly reduces the amount of chemical product needed to maintain clean, fresh water.

pH — The pH level is the measure of acidity and alkalinity of the water. It is measured on a scale of 0 - 14. The ideal pH level is 7.2 - 7.6. When the pH level falls below 7.2, damage to metal in the equipment pack can occur. A high pH level above 7.8 can reduce the effectiveness of the sanitizer, and cause cloudiness and scale formation. Improper pH levels can be irritating to the eyes.

pH and Alkalinity Decrease — Decreases the pH and Alkalinity level of the water in your spa.

pH and Alkalinity Increase — Increases the pH and Alkalinity level of the water in your spa.

ppm — Parts per million. The measurement of chemical concentration in the water.

Sanitizer — Any product or device that kills bacteria living in the water.

Shock — Also known as shocking or oxidation. Shocking oxidizes used up chloramines and bromamines in the water that cause odor and irritation.

Shock Oxidizer — Rids the water of chloramines or bromamines through oxidation (shocking).

Swirl Away — Removes build-up of oils and other debris in plumbing lines and jets. Makes the interior of the spa sparkle.

Water Balance — The interrelation of factors which determine the quality of spa water. The effectiveness of chemicals and additives is dependent on other chemicals or water characteristics present in the spa water. Chemicals, minerals, or other substances are going to vary depending on your municipal water system, ground well, or other water supply.

Water Test Strip — An accurate dip test that measures the spa water for sanitizer, pH, and alkalinity levels.



The Amerse Spa Care line of water treatment products were developed with three things in mind:

- **CRYSTAL CLEAR WATER**
- **EASE OF USE**
- **PEACE OF MIND**

Amerse Spa Care was designed as a stand alone spa care program, but can also be used in conjunction with more sanitizing methods than any other spa care system. Amerse is compatible with chlorine and bromine, Spa Frog or Nature² Mineral Sanitizers, and ozone equipped spa systems.

The Amerse spa care regimen is simple and easy to follow. Each product is uniquely color-coded to enable an easy-to-follow spa care program.



Sanitizing Products



Weekly Products



Monthly Products



As Needed Products



Filling Products

Amerse products meet or surpass all EPA requirements and can be used with fiberglass, acrylic, wood and vinyl-lined spas.

Amerse products are available through authorized spa retailers. Contact your local Amerse retailer or call the number below for the location of the retailer nearest you.

Manufactured for
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800-866-2499

www.Essentials-SpaSupplies.com