

APPROVED
By Sally Hayes at 1:44 pm, 5/26/06

Lasts 4 Full Months!

MONARCH[®]

MINERAL SPA SANITIZER

Manufactured exclusively for Caldera[®] Spas.



**INSTALLS IN SECONDS
RIGHT INTO THE FILTER
STANDPIPE.**

1. Remove filter from spa.
2. Insert Monarch mineral spa sanitizer into the standpipe.
3. Replace filter.



Please refer to the operating manual for complete installation instructions.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals.

CAUTION

In the unlikely event that a cartridge breaks, mineral media should not be ingested by humans or animals as it may cause gastric distress.

FIRST AID

IF INGESTED: Call Poison Control Center or doctor immediately for treatment advice.

STORAGE / DISPOSAL

Storage - Store in areas inaccessible to small children.

Disposal - After 4 months of use, discard cartridge in household trash. Do not save the cartridge for re-use. The cartridge is manufactured with mineral sealed media inside. In the unlikely event a cartridge breaks, remove it and vacuum out any media introduced into the spa water.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. See Owner's Manual inside box for directions for use.

CHANGE THIS CARTRIDGE EVERY 4 MONTHS

Use of this cartridge for longer than 4 continuous months will void the warranty. Discard this cartridge at the end of 4 months.

Sold by: Watkins Manufacturing Corp.
1280 Park Center Drive
Vista, CA 92081

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Printed in the USA.
Specifications subject to change without notice.

W12205



LICENSED

PERIOD **2006-2008** LIC. NO.



LICENSED

PERIOD **2009-2011** LIC. NO.



LICENSED

PERIOD **2012-2014** LIC. NO.



LICENSED

PERIOD **2015-2017** LIC. NO.

8518.1

MONARCH[®]

MINERAL SPA SANITIZER

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*Keeps spa water
clean and crystal clear!*

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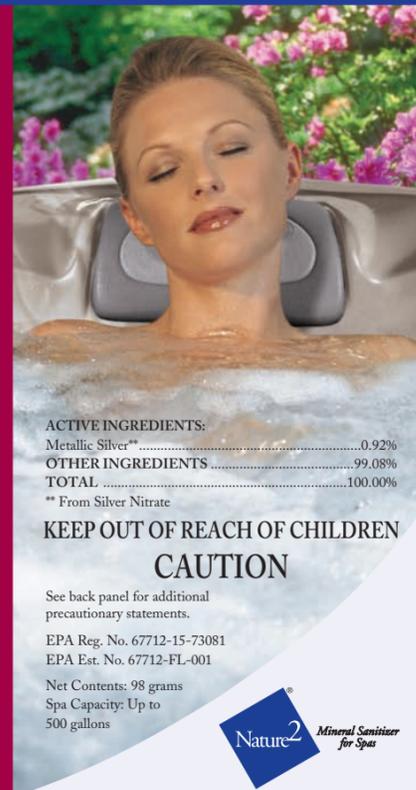
USE MONARCH MINERAL SPA SANITIZER TO:

- Inhibit the growth of bacteria
- Improve water quality
- Reduce chlorine usage when used in combination with Monarch MPS*

*Potassium peroxymonosulfate.



CalderaSpas[®]



ACTIVE INGREDIENTS:
Metallic Silver**0.92%
OTHER INGREDIENTS99.08%
TOTAL100.00%
** From Silver Nitrate

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

See back panel for additional precautionary statements.

EPA Reg. No. 67712-15-73081
EPA Est. No. 67712-FL-001

Net Contents: 98 grams
Spa Capacity: Up to 500 gallons



FOR SPARKLING CLEAR WATER...

Inhibits the growth of bacteria - for brilliantly clear, odor-free spa water.

IT'S EASY TO INSTALL...

Installs in seconds and lasts 4 full months.

IT'S COMPATIBLE...

Compatible with all Caldera[®] spa models and the Monarch[®] ozone system.

Satisfaction Guaranteed!



MONARCH[®]

MINERAL SPA SANITIZER

APPROVED

By Sally Hayes at 3:14 pm, 5/31/06

Owner's Manual

EPA Reg. No. 67712-15-73081

EPA Est. No. 67712-FL-001

**IMPORTANT: Spa Owner, save this manual!
Installer, leave this manual with the spa owner!**

Safety Instructions Important Information

Please read prior to
installation.

Monarch Mineral Spa Sanitizer has been designed to sanitize spas up to 500 gallons.



ATTENTION

Failure to heed the following can result
in permanent injury or drowning.

EQUIPMENT UNDER PRESSURE

- Always turn spa off prior to installing or changing Monarch Mineral Spa Sanitizer. Your spa system is operated under pressure and the pressure must be released before you begin work. Please see your spa owner's manual for further instructions.

PREVENT CHILD DROWNING

- Do not let anyone, especially small children, sit, step, lean or climb on any equipment installed as part of your spa's operational system.

LOW CHLORINE RECIPE

- You must strictly follow the Monarch Mineral Spa Sanitizer recipe included in this manual to maintain proper water chemistry and avoid health hazards. Failure to follow these instructions can lead to sickness from bacteria and other noxious organisms.



CAUTION

PRECAUTIONARY STATEMENT

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

In the unlikely event that a cartridge breaks, mineral media should not be ingested by humans or animals as it may cause gastric distress.

FIRST AID

IF INGESTED: Call poison control center or doctor immediately for treatment advice.

The Monarch Mineral Spa Sanitizer is designed only for residential portable spas.



CalderaSpas[®]

Pure Comfort

WE ASK YOU TO TAKE THE TIME TO GET FAMILIAR WITH THIS MANUAL.

Thank you for purchasing Monarch Mineral Spa Sanitizer. We believe the more you know, the more enjoyable your family's bathing experience will be – and the more you will reduce the time, effort and cost of maintaining your spa. Spa owners who switch from conventional chemical programs to the Monarch Mineral Spa Sanitizer spend less time maintaining their spa. Every spa has its own characteristics of water type, amount of sunlight, etc. The recipe included in this manual will help insure good water quality for your spa. Remember, your authorized Caldera Spas Dealer can provide professional advice and service.

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DIRECTIONS FOR USE:

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

MONARCH MINERAL SPA SANITIZER COMPATIBILITY

Attention

Not to be used with product containing Bromine, Sodium bromide, or biguanides. If these products are being used, be sure to drain and refill with fresh water.

Start-Up

- Before starting up a new Monarch Mineral Spa Sanitizer, clean debris and algae out of the spa and spa equipment.

Important: *Do not install* the new Monarch Mineral Spa Sanitizer until the spa water is clean and chemically balanced.

- Balance spa water before installing Monarch Mineral Spa Sanitizer.
 - pH 7.2-7.6
 - Calcium hardness 200-400 ppm
 - Total alkalinity 80-120 ppm
 - Total Dissolved Solids (TDS) 300-2000 ppm

Consult with your Caldera Spas Dealer for specific water balance instructions.

Balance the Water

To find out if your spa water is balanced:

- take a water sample to your dealer to be tested regularly, or
- ask your dealer to recommend a spa test kit for water balance.

Element: pH

Range: 7.2-7.6

If it's too low: The surface of your spa can become etched. Metal parts in the pump and plumbing will corrode.

How to fix: Add pH increaser.

If it's too high: "Scale" forms on the surface of your spa. The water can become cloudy. Equipment can become damaged.

How to fix: Add pH decreaser.

Element: Calcium Hardness **Range:** 200-400 ppm

If it's too high: Rough, discolored deposits ("scale") will form on the spa surface and inside spa equipment.

How to fix: Drain or dilute the spa water. Consult your dealer.

Element: Total Alkalinity **Range:** 80-120 ppm

If it's too low: It provides no buffer so that you constantly get fluctuating pH readings, which can damage equipment and spa surfaces.

How to fix: Use an alkalinity increaser.

If it's too high: The water becomes cloudy or milky white.

How to fix: Add acid to bring alkalinity down.

Install the Monarch Mineral Spa Sanitizer

- 1 Drain and refill your spa.** Balance water per spa manufacturer guidelines.
- 2 Install the Monarch Mineral Spa Sanitizer** after water is balanced. Refer to Assembly and Installation Diagrams below for instructions regarding your particular model's installation.
- 3 Superoxidize** the spa water with an EPA registered source of chlorine according to manufacturer's instructions to burn off contaminants and activate cartridge.
 - Add 1.5 tablespoons of dichlor¹ to spa per 250 gallons (approx. 1000 liters).
 - Note: 1.5 tablespoons is approximately 3/4 oz or 24 grams.
 - Do not enter the spa if the free available chlorine residual is over 5 ppm.

Important: Initial superoxidation with dichlor¹ is required to burn off contaminants and activate cartridge.

- 4 Run spa** according to recommendations supplied to you by the manufacturer of your spa.

ASSEMBLY AND INSTALLATION DIAGRAMS

- 1 Remove** filter from spa.
- 2 Insert** Monarch Mineral Spa Sanitizer into the standpipe as shown in *Figure 1*.
- 3 Replace** filter.

Note: The Monarch Mineral Spa Sanitizer is designed to fit most portable spas. Watkins Manufacturing Corp. assumes no liabilities for the product if installed in any way other than the methods described in this manual.

¹ Sodium dichloroisocyanurate dihydrate

Figure 1



Recipe

There is one recipe for maintaining clean, clear, sanitized water with minimum time and effort.

This recipe provides the easiest and most economical way to care for your Monarch Mineral Spa Sanitizer.

Low-Chlorine Recipe

Ingredients:

- Monarch Mineral Spa Sanitizer
- Non-chlorine oxidizer (MPS²)³
- Monarch MPS Test Strips⁴, or equivalent (MPS², pH, total alkalinity)
- pH, hardness and total alkalinity adjusting chemicals
- Dichlor¹, EPA registered source

When: What to do:

Every day Run spa according to recommendations supplied to you by the manufacturer of your spa.

Before each use Test the water with the Monarch MPS Test Strip (or equivalent). If the MPS² level is low, add 1 tablespoon of MPS² to spa per 250 gallons (approx. 1000 liters).
(Note: 1 tablespoon is approximately 1/2 ounce or 16 grams)
Use the Monarch MPS Test Strip (or equivalent) to test the spa water after each addition of MPS².
If the test strip indicates levels below the OK range, add 1 tablespoon MPS² to spa per 250 gallons and re-test.
Enter spa only after test strip indicates a sufficient level of MPS².

After each use Add 1 tablespoon of MPS² to spa per 250 gallons (approx. 1000 liters).

Once per week Adjust the pH, total alkalinity, and hardness as needed. A convenient way to test pH and total alkalinity is the Monarch MPS Test Strip.

Every 4 months Drain and refill your spa. Replace Monarch Mineral Spa Sanitizer and repeat sanitizer start-up.

As needed Shock treat with 1.5 tablespoons of an EPA registered source of dichlor¹ per 250 gallons (approx. 1000 liters) to remedy problems which may occur when bathing loads are high, when successive MPS² test strip reading indicate high demand, when water appears hazy or dull, when unpleasant odors or eye irritation occur, after heavy wind and rainstorms or if foam develops.

Note: As an alternative to MPS², an EPA registered source of dichlor¹ may be substituted: 1 tablespoon dichlor¹ = approximately 3 tablespoons MPS.²

Important: Perform start-up procedures for spas which have been unused or unattended. The Monarch Mineral Spa Sanitizer is not to be used with products containing bromine, sodium bromide or biguanides. If these products are being used, BE SURE TO DRAIN AND REFILL SPA WITH FRESH WATER.

² Potassium peroxymonosulfate

³ MPS may cause a lowering of the pH and total alkalinity of your spa water. Please monitor pH and total alkalinity at least once per week and adjust accordingly.

⁴ Monarch MPS Test Strips are available at your local Caldera Spas Dealer.

Provide Filtration/Circulation

To manage:

You need to:

Circulation

Follow the manufacturer's directions for keeping the circulating pump in good working order and operate it at least four hours a day.

Consult your Caldera Spas Dealer for optimum run times.

Filtration

Check the spa's filter periodically and clean it as recommended by the manufacturer.

Monarch Mineral Spa Sanitizer Replacement Intervals

Use the month indicator decal to identify the date on which the cartridge should be replaced. Always turn spa off prior to installing or changing Monarch Mineral Spa Sanitizer. Your spa is operated under pressure and the pressure must be released before you begin work. Please see your spa owner's manual for further instructions.

A cartridge lasts four (4) months. The cartridge should not be used longer than four (4) months.

Disposal

After four months of use, discard Monarch Mineral Spa Sanitizer in household trash. Do not save the cartridge for re-use. The cartridge is manufactured with the mineral media sealed inside. In the unlikely event a cartridge breaks, remove it and vacuum out any media introduced into the spa.

Limited Warranty

MONARCH MINERAL SPA SANITIZER LIMITED WARRANTY

The limited warranties contained within this document are the only warranties given with your Monarch Mineral Spa Sanitizer and supercede any prior warranties. **All other warranties, expressed or implied, including the implied warranty of merchantability or the implied warranty of fitness for a particular purpose are hereby disclaimed.** Our sole obligation under this warranty, and the purchaser's sole remedy, is limited to repair or replacement of the Monarch Mineral Spa Sanitizer. The Monarch Mineral Spa Sanitizer Warranty applies to the original owner only.

THE LIMITED WARRANTIES OF THE MONARCH MINERAL SPA SANITIZER ARE:

Monarch Mineral Spa Sanitizer is warranted to be free of defects in materials and to perform satisfactorily for a period of four months from the date of purchase. Monarch Mineral Spa Sanitizer is warranted not to cause staining in your spa. This limited warranty requires that you exercise reasonable care of your spa and keep water in balance at all times. This limited warranty does not cover discoloration to chromium fittings. This warranty does not cover cartridges used with any biguanide products such as BaquaSpa^{®5}, Baquacil^{®5}, Soft Swim^{®6} or any products containing Bromine or Bromine-based chemicals. If the cartridge is defective and does not perform satisfactorily for the entire four months, we will replace the cartridge.

EXCLUSIONS FROM WARRANTY

Monarch Mineral Spa Sanitizer is designed for use on residential portable spas up to 500 gallons. If it is used in any other application, the warranty is void, and the purchaser and/or spa owner releases the manufacturer from any and all claims related to the use of the Monarch Mineral Spa Sanitizer.

This warranty does not cover problems arising in whole or in part from purchaser's negligence, misuse or abuse, improper maintenance or storage, accident, improper installation, improper application, failure to follow all appropriate safety precautions, Acts of God, abnormal weather conditions, damage from plants or animals, and improper use of chemicals.

This warranty specifically excludes all incidental or consequential damages, except where state law requires them to be paid. This warranty gives you specific rights. You may have other rights that vary from state to state.

TO SUBMIT A CLAIM

Report claims to Watkins Manufacturing Corp. by calling 800 669-1881. Only the original purchaser may submit a claim under this limited warranty. Claims must be accompanied by an original purchase receipt.

⁵ A Trademark of Arch Chemicals, Inc.

⁶ A Trademark of BioLab, Inc.

Troubleshooting

	Problem	What to look for
Cloudy water Frequently caused by improper start up. See section on Start Up and Install the Cartridge.	Spa filtration	Slow filter turnover rates
	Algae growth	Hazy spa water; may have slightly green appearance.
	Unbalanced water	1. High hardness 2. High TDS (total dissolved solids) 3. High pH 4. High total alkalinity
Algae Algae may be caused by insufficient levels of oxidizer and/or inadequate water circulation.	Green or white algae	Pea green to white color; attaches to spa walls; sometimes colors the entire body of water
	Note:	Do not use algae treatments containing either copper or sodium bromide.
Stains	Blue/green	Copper or iron from spa equipment corrosion or water supply
	Red/brown	Iron or manganese from equipment corrosion or water supply.
	Black	Manganese in water supply.
	Metal tarnishing	High native mineral content in water; unbalanced water
Scale	Crusty deposits on spa surfaces	High pH and high total alkalinity High TDS (total dissolved solids) or high hardness

Treatment

- 1 Backwash and clean filter.
 - 2 Run filter for 24 hours.
 - 3 Increase run time per day.
-

Superchlorinate water with EPA registered source of dichlor¹ according to manufacturer's instructions.

Balance the spa water.

- 1 Check pH and adjust if necessary.
 - 2 Superchlorinate water with EPA registered source of dichlor¹ according to manufacturer's instructions.
 - 3 Repeat steps 1 and 2 until algae is gone.
-

- 1 Adjust pH and total alkalinity to ideal ranges.
 - 2 Vigorously brush stained areas.
 - 3 Add sequestrant.
 - 4 Run filter.
 - 5 Twelve hours later, superchlorinate the spa.
 - 6 Test and balance water.
 - 7 Test spa water for dissolved metals.
-

Clean with soft cloth and mild detergent.
Test water for minerals; use a sequestrant;
maintain water balance.

Adjust pH and total alkalinity to ideal ranges.

- 1 Replace a volume of spa water with water low in hardness and dissolved solids.
- 2 Use sequestrant to prevent scale buildup if high hardness is a continuing problem.
- 3 If remedial action has been taken, and problem still persists, drain and refill spa.

Monarch MPS Test Strips



**Just dip and swirl
the Test Strip.**

See accurate and reliable results on the levels of MPS², Alkalinity and pH in your spa's water.

Now available at your local Caldera Spas Dealer.

Sold by:
Watkins Manufacturing Corp.
1280 Park Center Drive
Vista, CA 92081

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