Nature2 CF Mineral Sanitizers for Pools

For Inground and Aboveground Pools with Cartridge Filters

- The Nature2® System with CRT improves water quality
- Destroys bacteria
- Reduces chlorine use to just 0.5 ppm
- Reduces potential for stinging eyes, skin irritation, and unpleasant odors
- For pools up to 26,000 gallons

Nature2 CF Mineral Sanitizers for Pools

For Inground and Aboveground Pools with Cartridge Filters

- The Low Chlorine Alternative
- Destroys bacteria with CRT

FOR INGROUND AND ABOVEGROUND POOLS WITH CARTRIDGE FILTERS

The Low Chlorine Alternative

- Nature2® water is brilliantly clear and soft
- Reduces potential for stinging eyes, skin irritation, and unpleasant odors
- Enhances swimmer comfort
- Lower chlorine levels help keep the pool pH balanced

It's Compatible

- Compatible with most pool maintenance products
- Will not damage your pool equipment

ACTIVE INGREDIENTS
- Alkalinity Reducer (as bicarbonate of soda) 3.51%
- Calcium Hardness Reducer (as calcium carbonate) 3.23%
- Total Alkalinity Regulator (as sodium carbonate) 1.25%
- Phosphates Regulator (as sodium metaphosphate) 0.05%

KEEP OUT OF REACH OF CHILDREN

CAUTION

NET CONTENTS:
ONE (1) UNIT

**Do not use Nature2 CF with fiber glass applications or anywhere.**
**Nature2 CF Mineral Sanitizers for Pools**

For Inground and Aboveground Pools with Cartridge Filters

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.

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.

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

CHANGE THIS CARTRIDGE EVERY FOUR (4) MONTHS
Use of this cartridge for longer than four continuous months will void the warranty. Discard this cartridge at the end of four months.

The Mineral Pool Sanitizer

Controlled Release Technology (CRT) controls the release of silver and copper mineral ions into your pool water.

The Nature2 System with CRT effectively sanitizes your pool:
- Destroys bacteria
- Restores water clarity
- Reduces chlorine use to just 0.5 ppm

To keep your patented Nature2 Sanitizer operating properly, it is necessary to change the cartridge every four (4) months.

Zodiac Pool Systems, Inc.
2602 Commerce Way
Vista, CA 92081-8438
©2009 Zodiac Pool Systems, Inc.
Made in USA

APSP
The Association of Pool & Spa Professionals*
Nature²® CF
For Inground and Aboveground Pools with Cartridge Filters

Owner's Manual

IMPORTANT
Pool Owner, save this manual! Builders, leave this manual with the pool owner!

Safety Instructions
Important Information
Please read prior to installation

Nature²® CF has been designed to sanitize swimming pools from 5,000 to 25,000 gallons.

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

EQUIPMENT UNDER PRESSURE
• Always turn pump off prior to installing or changing Nature² cartridge. Your pump/filter system is operated under pressure and the pressure must be released before you begin work. Please see your pump/filter 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 pool's operational system. Locate the components of your operational system at least 3 feet from the pool so children cannot use the equipment to access the pool and be injured or drown.

LOW CHLORINE RECIPE
• You must strictly follow the low chlorine 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 Nature² Pool Sanitizer is designed only for residential swimming pools.

¹ The Nature² System consists of the patented Nature² technology used in conjunction with a chlorine delivery device or 0.5 ppm of an EPA registered chlorine pool product.

² Nature² technology consists of the minerals silver and copper.
WE ASK YOU TO TAKE THE TIME TO GET FAMILIAR WITH THIS MANUAL.

Thank you for purchasing Nature²®. We believe the more you know, the more enjoyable your family's swimming experience will be—and the more you will reduce the time, effort and cost of maintaining your pool. Pool owners who switch from conventional chemical programs to the Nature² System® spend less time maintaining their pools. Every pool 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 pool. Remember, your Nature² dealer can provide advice and service.

CONTENTS

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Instructions</td>
<td>.1</td>
</tr>
<tr>
<td>Assembly</td>
<td>.3</td>
</tr>
<tr>
<td>Start Up</td>
<td>.5</td>
</tr>
<tr>
<td>Balance the Water</td>
<td>.6</td>
</tr>
<tr>
<td>Install the Cartridge</td>
<td>.6</td>
</tr>
<tr>
<td>Recipe</td>
<td>.7</td>
</tr>
<tr>
<td>Provide Filtration/Circulation</td>
<td>.7</td>
</tr>
<tr>
<td>Troubleshooting Guide</td>
<td>.8</td>
</tr>
<tr>
<td>Nature² Cartridge Replacement Intervals</td>
<td>.10</td>
</tr>
<tr>
<td>Winterizing Your Pool</td>
<td>.10</td>
</tr>
<tr>
<td>Disposal</td>
<td>.10</td>
</tr>
<tr>
<td>Limited Warranty</td>
<td>.11</td>
</tr>
</tbody>
</table>

DIRECTIONS FOR USE:

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

NATURE² COMPATIBILITY

Nature² Systems® can be used with all types of pool chemical treatments available except biguanide products and copper based algaecides.

Important: When converting either a biguanide or bromine treated pool to the Nature² low chlorine System®, the pool must be completely drained and refilled. Then follow the Nature² cartridge start-up procedure below.
Assembly

The Nature\textsuperscript{2} CF consists of four (4) sanitizer elements, two (2) end caps and two (2) end spikes.

Sanitizer Elements  
Endcaps  
Spikes

Depending upon the size of your swimming pool cartridge filter, these parts can be assembled as a bundle of four (4) sanitizer elements, or as two (2) sticks of two (2) elements each.

**NOTE:** You should first attempt to use the bundle assembly.

Bundle Assembly  
Stick Assembly

Decide which Nature\textsuperscript{2} CF assembly is right for your pool filter.

1. Turn off the pump and disassemble the pool filter as you normally would to clean the cartridge.
2. Check to see if the endcap fits easily into the core of your cartridge filter:
   - If it does, go to Bundle Assembly
   - If it does not, go to Stick Assembly
Bundle Assembly

The hole in the center of the endcap accommodates a center rod should your filter have one.

1. Lay an end cap on a flat surface and snap the four (4) sanitizer elements into it, so that the tabs are pointing up.

2. Snap the other end cap on top.

Important: Be sure that the notch on each end cap lines up together to accommodate an air bleed tube.
Stick Assembly

Important: Use only after attempting the Bundle Assembly.

1. Snap two (2) sanitizer elements together so that each tab and slot line up.

2. Snap the end spike to one end.

NOTE: Once assembled, do not attempt to separate the sanitizer elements as the tabs may break.

Start Up

- Before starting up a new Nature² cartridge, clean debris and algae out of the pool and pool equipment.

Important: Do not install the new cartridge until the pool water is clean and chemically balanced.

- Balance pool water before installing Nature² cartridge.
  - pH 7.4-7.8
  - Calcium hardness 200-400 ppm
  - Total alkalinity 80-150 ppm

Consult with your Nature² Dealer for specific water balance instructions.
# Balance the Water

To find out if your pool water is balanced:

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

<table>
<thead>
<tr>
<th>Element: pH</th>
<th>If it's too low: The surface of your pool can become etched. Metal parts in the pump and plumbing will corrode.</th>
<th>How to fix: Add pH increaser.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range: 7.4-7.8</td>
<td>If it's too high: &quot;Scale&quot; forms on the surface of your pool. The water can become cloudy. Equipment can become damaged.</td>
<td>How to fix: Add pH decreaser.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element: Calcium Hardness</th>
<th>If it's too low: Water is less stable. In plaster pools, the calcium is taken out of the plaster, causing the surface to deteriorate.</th>
<th>How to fix: Add calcium hardness increaser.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range: 200-400 ppm</td>
<td>If it's too high: Rough, discolored deposits (&quot;scale&quot;) will form on the pool surface and inside pool equipment.</td>
<td>How to fix: Drain or dilute the pool water. Consult your dealer.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element: Total Alkalinity</th>
<th>If it's too low: It provides no buffer so that you constantly get fluctuating pH readings, which can damage equipment and pool surfaces.</th>
<th>How to fix: Use an alkalinity increaser.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range: 80-150 ppm</td>
<td>If it's too high: White deposits (&quot;scale&quot;) form on the tile line. The plaster or pool surface becomes rough or discolored.</td>
<td>How to fix: The water becomes cloudy or milky white. Add acid to bring alkalinity down.</td>
</tr>
</tbody>
</table>

# Install the Cartridge

1. Install the cartridge into your pool filter after water is balanced.
2. Superoxidize the pool water with chlorine according to manufacturer's instructions to burn off contaminants and activate cartridge.

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

3. Run the circulating pump either:
   - 24 hours a day for 4 days, maintaining 1-2 ppm free chlorine throughout, or
   - 6 hours a day for 14 days, maintaining 1-2 ppm free chlorine throughout.

4. Let chlorine dissipate to 0.5 ppm once start up period is completed.
   - Do not enter the pool if the free available chlorine residual is over 3 ppm.
Recipe

There is one (1) 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 Nature\textsuperscript{2} pool.

Low-Chlorine Recipe

Ingredients:
- Nature\textsuperscript{2} cartridge
- Chlorine granules, tablets, liquid or generator
- pH and total alkalinity adjusting chemicals
- Calcium hardness increaser, if needed
- Water test kit

Once the 4-day or 14-day start-up period is done, allow the free available chlorine residual to drop to 0.5 ppm (by reducing the amount of chlorine you add) then:

When: What to do:
---
Every day: Run pump and filter at least six (6) hours every day.
Once a week: Balance pH and total alkalinity.
Twice a week: Check chlorine residual; add chlorine to maintain at least a 0.5 ppm range using the chart below.
As needed: If water is hazy, superoxidize with chlorine according to manufacturer's instructions. Additional shocking is recommended following rainstorms or heavy bather load.
Do not re-enter the pool if the free available chlorine residual is over 3 ppm.

Add the following amounts of chlorine per 10,000 gallons of water to increase free chlorine by 0.5 ppm.

<table>
<thead>
<tr>
<th>Type of Chlorine Containing Compound</th>
<th>% Active Ingredient</th>
<th>% Available Chlorine Content</th>
<th>Ounce Quantity Required</th>
<th>Gram Quantity Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hypochlorite Liquid</td>
<td>5.25</td>
<td>5.25</td>
<td>12.7</td>
<td>361</td>
</tr>
<tr>
<td>Sodium Hypochlorite Liquid</td>
<td>9.2</td>
<td>9.2</td>
<td>7.3</td>
<td>208</td>
</tr>
<tr>
<td>Sodium Hypochlorite Liquid</td>
<td>10</td>
<td>10</td>
<td>6.5</td>
<td>184</td>
</tr>
<tr>
<td>Sodium Hypochlorite Liquid</td>
<td>12</td>
<td>12</td>
<td>5.6</td>
<td>158</td>
</tr>
<tr>
<td>Calcium Hypochlorite</td>
<td>65</td>
<td>64</td>
<td>1.1</td>
<td>30</td>
</tr>
<tr>
<td>Dichloroisocyanurate</td>
<td>99</td>
<td>92</td>
<td>1.1</td>
<td>30</td>
</tr>
<tr>
<td>Lithium Hypochlorite</td>
<td>29</td>
<td>35</td>
<td>1.9</td>
<td>54</td>
</tr>
<tr>
<td>Trichloro-s-triazinione</td>
<td>99</td>
<td>90</td>
<td>0.7</td>
<td>21</td>
</tr>
<tr>
<td>Chlorine Gas, from any source</td>
<td>100</td>
<td>100</td>
<td>0.7</td>
<td>19</td>
</tr>
</tbody>
</table>

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 six (6) hours a day.
Consult your Nature\textsuperscript{2} dealer for optimum run times.

Filtration: Check the pool’s filter periodically and clean it as recommended by the manufacturer.
# Troubleshooting Guide

<table>
<thead>
<tr>
<th>Problem</th>
<th>What to look for</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cloudy water</strong></td>
<td></td>
</tr>
<tr>
<td>Frequently caused by improper start up. See section on Start Up and Install the Cartridge.</td>
<td>Poor filtration</td>
</tr>
<tr>
<td>Algae growth</td>
<td>Hazy pool water; may have slightly green appearance.</td>
</tr>
<tr>
<td>Unbalanced water</td>
<td>1 High hardness</td>
</tr>
<tr>
<td></td>
<td>2 High TDS (total dissolved solids)</td>
</tr>
<tr>
<td></td>
<td>3 High pH</td>
</tr>
<tr>
<td></td>
<td>4 High total alkalinity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Algae</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Algae may be caused by insufficient levels of oxidizer and/or inadequate water circulation.</td>
<td>Green algae</td>
</tr>
<tr>
<td></td>
<td>Black algae</td>
</tr>
<tr>
<td></td>
<td>Mustard algae</td>
</tr>
</tbody>
</table>

**Note:** Regular algaecide treatments are recommended for outdoor pools that experience persistent algae problems. Do not use algae treatments containing either copper or sodium bromide.

<table>
<thead>
<tr>
<th><strong>Stains</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue/green</td>
<td>Copper or iron from pool equipment corrosion or water supply</td>
</tr>
<tr>
<td>Red/brown</td>
<td>Iron or manganese from equipment corrosion or water supply.</td>
</tr>
<tr>
<td>Black</td>
<td>Manganese in water supply.</td>
</tr>
<tr>
<td>Metal tarnishing</td>
<td>High native mineral content in water; unbalanced water</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Scale</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Crust deposits on pool surfaces</td>
<td>High pH and high total alkalinity</td>
</tr>
<tr>
<td></td>
<td>High TDS (total dissolved solids) or high hardness levels</td>
</tr>
</tbody>
</table>
Treatment

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

Superchlorinate water with chlorine according to manufacturer’s instructions and brush pool walls.

Balance the pool water.

---

1. Check pH and adjust if necessary.
2. Superchlorinate with chlorine according to manufacturer’s instructions and brush pool walls.
3. Repeat steps 1 and 2 until algae is gone.

1. Brush affected areas.
2. Superchlorinate water with chlorine according to manufacturer’s instructions.
3. Add algicide.
5. Repeat steps 1 through 4 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 pool.
6. Test and balance water.
7. Test pool water for dissolved metals.

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

Adjust pH and total alkalinity to ideal ranges.

---

1. Replace a volume of pool water with water low in hardness and dissolved solids.

2. Use sequestrant to prevent scale buildup if high hardness levels are a continuing problem.
Nature²® Cartridge Replacement Intervals

Always turn pump off prior to installing or changing Nature² CF cartridge. Your pump/filter is operated under pressure and the pressure must be released before you begin work. Please see your pump/filter owner’s manual for further instructions.

A cartridge lasts four (4) months or one (1) season, whichever is shorter. The cartridge should not be used longer than four (4) continuous months.

Winterizing Your Pool

Use these steps as a guide. Consult your dealer for specific information in your area.

Warm Climate
1. Reduce the number of hours the pump runs since the cooler weather decreases the spread of algae and other pollutants.
2. There is no need to super oxidize the pool during cool weather unless the water becomes cloudy (as may occur after a winter storm). See Cloudy Water in Troubleshooting section.

Cold Climate
1. Check total alkalinity and pH of pool to make sure that they are in proper balance.
2. Vacuum the pool bottom to remove any debris or other potential contaminants.
3. Super oxidize the pool with chlorine according to manufacturer’s instructions to clear the water.
4. Add a winter algaecide following manufacturer’s instructions.

Important: Do not use a winter algaecide with copper in it. This will void the Nature² no-stain warranty.
5. Backwash the filter.
6. Drain part of the pool water. The amount to drain varies from one part of the country to another. Consult your dealer for advice.
7. Remove the Nature² cartridge and discard with household trash.
8. Winterize the pipes with pool antifreeze following manufacturer’s instructions.
9. Drain the water out of all equipment (pump, filter, etc.).
10. Store all baskets, hoses and cleaning equipment, indoors if possible.
11. Cover the pool with a winter cover.

Disposal

After four (4) months of use, discard Nature² cartridge 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 pool.
NATURE\textsuperscript{2} LIMITED WARRANTY
The limited warranties contained within this document are the only warranties given with your Nature\textsuperscript{2} CF cartridge and supersede 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 Nature\textsuperscript{2} CF. The Nature\textsuperscript{2} warranty applies to the original owner only.

THE LIMITED WARRANTIES OF THE NATURE\textsuperscript{2} CF SANITIZER:
Nature\textsuperscript{2} CF is warranted to be free of defects in materials and to perform satisfactorily for a period of four (4) months from the date of purchase. Nature\textsuperscript{2} CF cartridges are warranted not to cause copper staining in your pool. This limited warranty requires that you exercise reasonable care of your pool and keep water in balance at all times and not use a copper-based algacide. This limited warranty does not cover discoloration to chromium fittings. This warranty does not cover cartridges used with any biguanide products. If the cartridge is defective and does not perform satisfactorily for the entire four (4) months, we will replace your cartridge.

EXCLUSIONS FROM WARRANTY
Nature\textsuperscript{2} CF is designed for use on inground and aboveground pools with cartridge filters from 5,000 to 25,000 gallons. If it is used in any other application, the warranty is void, and the purchaser and/or pool owner releases the manufacturer from any and all claims related to the use of the Nature\textsuperscript{2}.
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 Zodiac Pool Systems, Inc. by calling 1-800-822-7933. Only the original purchaser may submit a claim under this limited warranty. All claims must be accompanied by an original purchase receipt.