The Mineral Pool Sanitizer

Express 2

Nature 2

Mineral Sanitizers

for Pools

Capacity: 8 hours per day
Run Time: 600 hours

STERILIZATION PROCESS:

1. Install the cartridge in your system.
2. Turn on your pool pump.
3. Set the pump to the cartridge position.
4. Allow the system to operate for 24 hours.
5. Remove and replace the cartridge as needed.

PRECAUTIONS:

1. Do not dispose of cartridge in regular household trash.
2. Do not use if the seal is broken.

PACKAGING:

Made of high-quality plastic

FACTORY REFURBISHED:

Express 2

Nature 2

Mineral Sanitizers

for Pools

Nature 2

Mineral Sanitizers

for Pools

The Nature 2 System with C2I effectively sanitizes your pool.

TO ORDER OR FOR MORE INFORMATION:

Call 1-800-POOL-000

Website: www.mineraltreatments.com

This product is for use in swimming pools and spas.
Express Cartridge
For Inground Pools and Aboveground Pools

Owner's Manual

EPA Reg. No. 67712-1
EPA Est. No. 67712-CA-001

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

Safety Instructions
Important Information
Please read prior to installation

Nature² Express Cartridges have 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.

* 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.

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.

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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.

NATURE² COMPATIBILITY
Nature² Systems® can be used with all types of pool chemical treatments available except biguanide products and copper based algacides.

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

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 60-150 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:</th>
<th>How to fix:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range: 7.4-7.8</td>
<td>The surface of your pool can become etched.</td>
<td>Add pH increaser.</td>
</tr>
<tr>
<td></td>
<td>Metal parts in the pump and plumbing will corrode.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element: Calcium Hardness</th>
<th>If it's too low:</th>
<th>How to fix:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range: 200-400 ppm</td>
<td>Water is less stable.</td>
<td>Add calcium hardness increaser.</td>
</tr>
<tr>
<td></td>
<td>In plaster pools, the calcium is taken out of the plaster, causing the surface to deteriorate.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element: Total Alkalinity</th>
<th>If it's too low:</th>
<th>How to fix:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range: 80-150 ppm</td>
<td>It provides no buffer so that you constantly get fluctuating pH readings, which can damage equipment and pool surfaces.</td>
<td>Use an alkalinity increaser.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>If it's too high:</th>
<th>How to fix:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The water becomes cloudy or milky white.</td>
<td>Add acid to bring alkalinity down.</td>
</tr>
<tr>
<td></td>
<td>While deposits (&quot;scale&quot;) form on the tile line.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The plaster on pool surface becomes rough or discolored.</td>
<td></td>
</tr>
</tbody>
</table>

Install the Cartridge

1. Install the cartridge after water is balanced. Refer to your Nature2® Express operating manual for additional instructions.

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 Nature2® pool.

Low-Chlorine Recipe

Ingredients:
- Nature2® 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>206</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>62</td>
<td>1.1</td>
<td>39</td>
</tr>
<tr>
<td>Lithium Hypochlorite</td>
<td>25</td>
<td>35</td>
<td>1.9</td>
<td>54</td>
</tr>
<tr>
<td>Trichloro-s-triazitrione</td>
<td>96</td>
<td>90</td>
<td>0.7</td>
<td>21</td>
</tr>
<tr>
<td>Chlorine Gas, from any source including chlorine generators</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 Nature2® dealer for optimum run times.

Filtration Check the pool’s filter periodically and clean it as recommended by the manufacturer.
Nature2® Cartridge Replacement Intervals

Use the month indicator ring on the top of the cartridge to identify the date on which the cartridge should be replaced. Always turn pump off prior to installing or changing Nature2® Express cartridge. Your pump/filler is operated under pressure and the pressure must be released before you begin work. Please see your pump/filler owner's manual for further instructions.

A cartridge lasts six (6) months or one (1) season, whichever is shorter. The cartridge should not be used longer than six (6) 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 superoxidize 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. Superoxidize the pool with chlorine according to manufacturer's instructions to clear the water.
4. Add a winter algicide following manufacturer's instructions.

Important: Do not use a winter algicide 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 six (6) 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.
## Troubleshooting Guide

<table>
<thead>
<tr>
<th>Problem</th>
<th>What to look for</th>
</tr>
</thead>
</table>
| Cloudy water    | **Poor filtration**<br>
Frequently caused by improper start up. See section on Start Up and Install the Cartridge. |
|                 | **Algae growth**<br>Hazy pool water; may have slightly green appearance.      |
|                 | **Unbalanced water**<br>1. High hardness<br>2. High TDS (total dissolved solids)<br>3. High pH<br>4. High total alkalinity |
|                 | **Algae**<br>Algae may be caused by insufficient levels of oxidizer and/or inadequate water circulation. |
|                 | **Green algae**<br>Pea green color; attaches to pool walls; and sometimes colors the entire body of water. |
|                 | **Black algae**<br>Black spots on pool walls.                                  |
|                 | **Mustard algae**<br>Yellow or brown film on steps or walls.                   |

**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>Problem</th>
<th>What to look for</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Stains</strong>&lt;br&gt;Blue/green&lt;br&gt;Copper or iron from pool equipment corrosion or water supply.</td>
</tr>
<tr>
<td></td>
<td><strong>Red/brown</strong>&lt;br&gt;Iron or manganese from equipment corrosion or water supply.</td>
</tr>
<tr>
<td></td>
<td><strong>Black</strong>&lt;br&gt;Manganese in water supply.</td>
</tr>
<tr>
<td></td>
<td><strong>Metal tarnishing</strong>&lt;br&gt;High native mineral content in water; unbalanced water.</td>
</tr>
<tr>
<td></td>
<td><strong>Scale</strong>&lt;br&gt;Crusty deposits on pool surfaces&lt;br&gt;High pH and high total alkalinity.</td>
</tr>
</tbody>
</table>

**High TDS (total dissolved solids) or high hardness levels.**
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 water 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 algaeicide.
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 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.
Limited Warranty

NATURE2® LIMITED WARRANTY

The limited warranties contained within this document are the only warranties given with your Nature2 Express Cartridge 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 Nature2 Express Cartridge. The Nature2 warranty applies to the original owner only.

THE LIMITED WARRANTIES OF THE NATURE2 EXPRESS CARTRIDGE ARE:

Nature2 Express Cartridges are warranted to be free of defects in materials and to perform satisfactorily for a period of six (6) months from the date of purchase. Nature2 Express 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 algicide. This limited warranty does not cover discoloration to chromium fittings. This warranty does not cover products used with any biguanide products. If the cartridge is defective and does not perform satisfactorily for the entire six months, we will make a prorated rebate based on your actual period of use. You are responsible to pay the below-indicated percentage on the then applicable retail cost: < 1 month-0%; 1-2 months- 25%; 3-4 months-50%; 5-6 months-75%.

EXCLUSIONS FROM WARRANTY

Nature2 Express Cartridges are designed for use on inground and aboveground pools 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 Nature2 Express cartridge.

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.