The Secret to a Sparkling Pool and Patio

FOR LESS!

Enjoy a crystal clear pool with ARM & HAMMER™ Baking Soda

ARM & HAMMER™ Pool Care and Outdoor Cleaning Guide
A Safe and Natural Start
ARM & HAMMER™ Baking Soda is the quick, safe and natural way to open your pool for the season. Use our conveniently sized larger bags to help naturally balance your pH and alkalinity to achieve stunning clear water you can be proud of.

How It Works
ARM & HAMMER™ Baking Soda helps maintain pH levels while providing the necessary alkalinity (mineral salts that stabilize pH levels) and helps keep your pool water balanced, crystal clear and gentle on the eyes.
When Monitoring pH

Measure pH daily and add ARM & HAMMER™ Baking Soda as indicated. To help prevent clouding, especially in hard water areas, or when using a calcium chlorinating agent, keep pH below 7.8 by adding sodium bisulfate or acid as necessary.

<table>
<thead>
<tr>
<th>If pH is:</th>
<th>Add per 10,000 Gallons of Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 7.2</td>
<td>1.36 – 1.81 kg</td>
</tr>
<tr>
<td>Between 7.4 – 7.5</td>
<td>907 g</td>
</tr>
<tr>
<td>Above 7.5</td>
<td>Don’t add Baking Soda</td>
</tr>
</tbody>
</table>
When Monitoring Alkalinity

Use ARM & HAMMER™ Baking Soda to help maintain alkalinity in the proper range—110–150 ppm. Alkalinity and pH should also be controlled independently. Measure alkalinity daily and add ARM & HAMMER™ Baking Soda as indicated:

<table>
<thead>
<tr>
<th>If Alkalinity is:</th>
<th>Add per 10,000 Gallons of Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 ppm</td>
<td>5.44 kg</td>
</tr>
<tr>
<td>40 ppm</td>
<td>4.08 kg</td>
</tr>
<tr>
<td>60 ppm</td>
<td>2.72 kg</td>
</tr>
<tr>
<td>80 ppm</td>
<td>1.36 kg</td>
</tr>
<tr>
<td>110 ppm or higher</td>
<td>Don’t add Baking Soda</td>
</tr>
</tbody>
</table>

See back of package for more detailed information.
Controlling alkalinity will usually stabilize pH in the desired range. However, occasional adjustments may be required.

- If pH is high, add sodium bisulfate or acid in moderation
- If pH is low, but alkalinity is correct, use a chemical like soda ash (sodium carbonate) to rapidly raise pH without increasing alkalinity
Other Uses

ARM & HAMMER™ Baking Soda is safe and natural so it can be used on just about anything—including your kids’ toys. Here are some more handy uses for around the pool.

Freshen Up Lawn Furniture

Clean thoroughly with a solution of ARM & HAMMER™ Baking Soda and water.

Keep Pool Towels Fresh

Add 118 mL ARM & HAMMER™ Baking Soda to rinse cycle to help remove chlorine odours.
ARM & HAMMER™ Baking Soda is safe and natural so it can be used on just about anything—including your kids’ toys. Here are some more handy uses for around the pool.

Freshen Up Lawn Furniture
Clean thoroughly with a solution of ARM & HAMMER™ Baking Soda and water.

Clean & Freshen Pool Toys
Wipe down with a solution of 59 mL ARM & HAMMER™ Baking Soda and 946 mL of warm water.

Get Your Grill Clean & Ready
Sprinkle ARM & HAMMER™ Baking Soda on a damp brush, scrub then rinse.
Every pool owner wants the same thing: sparkling clear water they can enjoy all season long. No harsh chemicals, no fuss. With ARM & HAMMER™, it’s never been easier to get the pool of your dreams.
Getting Started

Here are some tips to get familiarized with your pump, filter and circulation systems.

- Filters remove undissolved particles and clarify water
- Good circulation ensures proper filtration and well-distributed disinfectants
- Consider bather load and weather conditions when running a circulating system

If you’re planning on purchasing an above-ground pool, insist on these features:

- Pump/filter combination able to recirculate pool capacity every 8 hours
- At least one skimmer and return located to prevent dead spots and short circuiting
- Pool location with non-skid surface
- Pool location at least 3 metres from electrical outlets and devices

<table>
<thead>
<tr>
<th>Terms</th>
<th>Definition</th>
<th>Test</th>
<th>Ideal Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Available Chlorine</td>
<td>Amount of active chlorine in the water</td>
<td>Daily</td>
<td>1–3 ppm</td>
</tr>
<tr>
<td>pH</td>
<td>Measure of the water’s acidity</td>
<td>Daily</td>
<td>7.4–7.8</td>
</tr>
<tr>
<td>Alkalinity</td>
<td>Water’s ability to maintain proper pH levels</td>
<td>Daily</td>
<td>110–150 ppm</td>
</tr>
<tr>
<td>Calcium Hardness</td>
<td>Amount of dissolved calcium in the water</td>
<td>Weekly</td>
<td>Below 250 ppm</td>
</tr>
<tr>
<td>Stabilizer</td>
<td>Measures level of protection chlorine has against damaging UV rays</td>
<td>2x/Season</td>
<td>20–50 ppm; do not exceed 100 ppm</td>
</tr>
</tbody>
</table>
ARM & HAMMER™ products can help with most common pool care procedures, ensuring crystal clear water for the entire season. Remember, it is especially important to follow these procedures when opening your pool for the season.

**Disinfectant**

It’s important to check disinfectant levels every day, adding more when necessary. When using chlorinating agents, remember to keep free residual chlorine between 1–3 ppm.

**Pool Tip:** Trichloroisocyanurate (or trichlor) is one of the most effective, and efficient, disinfectants available. It’s sun-stabilized, concentrated and provides uniform chlorination.

**pH & Alkalinity Control**

Like with disinfectant levels, make sure you check pH daily. Whenever pH drops below 7.2, add 1.36–1.81 kg of ARM & HAMMER™ Baking Soda per 10,000 gallons of water to raise the pH. If, after a day or so, the pH has not stabilized and drops below 7.2 again, add another 1.81 kg of ARM & HAMMER™ Baking Soda per 10,000 gallons of water. This procedure should bring alkalinity into the desirable 110–150 ppm range and stabilize pH between 7.4 and 7.8 for several weeks.

**Water Hardness**

Water hardness reflects the potential for scaling—though a moderate level of hardness will help prevent corrosion. Ideally, hardness should be kept below 250 ppm. If this is not possible, make sure to keep alkalinity below 110 ppm and pH below 7.8.

**Pool Tip:** If your pool has very hard water, avoid using calcium containing chlorinating agents.
Chlorine Stabilizer
Chlorine stabilizer concentration reflects the ability of chlorinating agents to resist loss due to sunlight. Stabilizer levels between 25–100 ppm are helpful in reducing chlorine loss, but excessive amounts will reduce effectiveness.

Pool Tip: Prevent organic waste build-up after heavy swim periods by shocking (superchlorinating) with an unstabilized chlorine source.

Measuring Pool Capacity
Pool capacity is critical in determining how often to treat your pool and how much product should be used. Use these simple formulas to calculate your pool’s capacity.

Step 1: Calculate the average depth:
Deep end depth (ft.) + Shallow end depth (ft.) = X (ft.) / 2 = Average depth

Step 2: Calculate Pool Capacity:

- **Rectangular/Square Pool:**
  
  \[ \text{Length} \times \text{Width} \times \text{Average Depth} \times 7.5 = \text{Pool Capacity (gal)} \]

- **Oval Pool:**
  
  \[ \text{Short Diameter} \times \text{Long Diameter} \times \text{Average Depth} \times 5.9 = \text{Pool Capacity (gal)} \]

- **Circular Pool:**
  
  \[ \text{Diameter} \times \text{Diameter} \times \text{Average Depth} \times 5.9 = \text{Pool Capacity (gal)} \]

- **Free Form Pool:**
  
  \[ \text{Surface (sq. ft.)} \times \text{Average Depth (ft.)} \times 7.5 = \text{Pool Capacity (gal)} \]
# Problems

<table>
<thead>
<tr>
<th>Problem</th>
<th>Symptoms</th>
<th>Causes</th>
</tr>
</thead>
</table>
| Green, Black or Dark Yellow Algae | • Slippery pool surface  
• Slimy walls  
• Dull green water | • High pH  
• Poor circulation  
• Low free available chlorine |
| Wall, fixture or plumbing corrosion | • Pitting and discoloration of surfaces | • Low pH  
• Extremely low water hardness and/or alkalinity |
| Scaling                        | • White, calcified buildup on pool surfaces | • Hard water  
• Excess calcium levels |
| Turbid/Cloudy Pool Water       | • Cloudy, murky pool water            | • Poor filtration  
• Insufficient chlorination  
• High water hardness, pH and alkalinity |
| Discoloured Pool Water         | • Clean, but coloured water           | • Dissolved metal impurities  
• Algae |
From cloudy pool water to slimy surfaces, there are many common problems that can affect your personal oasis. Use this helpful chart to learn about potential issues—and the most effective ways to solve them.

<table>
<thead>
<tr>
<th>Solution</th>
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</table>
| - Superchlorination  
- Brushing pool sides and bottom  
- Using an algaecide |
| - Using ARM & HAMMER™ Baking Soda to easily achieve proper pH and alkalinity |
| - Reducing pH and alkalinity levels  
- Avoiding calcium-containing disinfectants  
- Carefully adding an acid |
| - Checking filtration system  
- Superchlorination  
- Regulating chlorine, pH and alkalinity levels |
| - Testing for iron and copper  
- Maintaining proper pH and alkalinity |
Glossary of Terms

**Acid:** A chemical that lowers pH rapidly when added to pool water. Examples: muriatic acid, sodium bisulfate.

**Algae:** Microscopic plant life that forms on pool surfaces. They can be carried and deposited in pool water by the millions, frequently mixing with slime mold. Most common strains are green, black, reddish brown and yellow.

**Algaecide:** A product used for algae control.

**Alkali (Base):** A chemical that raises pH when added to pool water. Examples: sodium hydroxide (lye), sodium carbonate (soda ash), sodium bicarbonate (Baking Soda).

**Alkalinity:** The measure of water’s ability to resist pH change.

**Bacteria:** Microorganisms transmitted to pool water by bathers, dust, wind and surface drainage. Many can grow and spread in recirculated water.

**Baking Soda:** Sodium bicarbonate. A natural, safe buffer than can be used to adjust pH upwards. It also provides the necessary alkalinity to prevent pH fluctuations.

**Buffer:** A chemical that helps water resist pH change. Sodium bicarbonate is a strong buffer.

**Chlorine:** In pool terminology, any chlorine sterilant or disinfectant added to water to kill bacteria, kill or inhibit algae growth and destroy other undesirable organic matter.
**Hardness:** A measure of water’s mineral content, usually expressed as calcium carbonate. Though some level of hardness may reduce chances of corrosion, higher levels indicate a greater chance for scaling.

**Liquid Chlorine:** Refers to solutions of sodium hypochlorite liquid bleach.

**pH:** Measure of relative acidity and basicity of water on a scale of 0–14. A pH of 7 denotes neutrality. A pH below 7 indicates water is acidic; a pH above 7 shows water is alkaline (basic).

**PPM:** The quantity of any substance per million parts of water. Example: 454 g of Baking Soda to 10,000 gallons of water provides about 7 ppm of alkalinity.

**Scaling:** Mineral deposits on pool floors and walls and in plumbing or filtering systems that can be unsightly or interfere with proper pool operation.

**Shocking (Superchlorination):** Using heavy doses of chlorinating product to kill accumulated bacteria or algae or to remove other accumulating organic matter. Superchlorination doses may be in the 5–10 ppm range, compared to normal levels of 1 to 1.5 ppm. Stabilized chlorinating agents should not be used for this.

**Soda Ash:** (Sodium Carbonate) An alkaline chemical used to rapidly raise pH.

**Stabilizer:** Helps reduce the loss of free available chlorine due to sunlight and evaporation. It is often added as part of the chlorine source. Example: cyanuric acid.
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For more information visit armandhammer.ca
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