

A high-angle, close-up shot of a person's legs sticking out of a large, inflatable ring shaped like a watermelon slice. The ring is floating in clear, rippling blue water. The person's feet are pointed upwards, and their legs are spread apart. The watermelon ring has a pinkish-red body with colorful sprinkles and a white rind. The text "Your FREE BioGuide" is overlaid in a large, white, serif font across the center of the image.

# Your FREE BioGuide

***Bionizer***

[www.bionizer.com.au](http://www.bionizer.com.au)



# Bionizer

**3** THE IMPORTANCE OF CIRCULATION

**6** 11 STEPS TO MAINTAINING YOUR  
SWIMMING POOL LIKE A  
PROFESSIONAL

**11** HOW TO FIX A CLOUDY SWIMMING  
POOL

**14** AFTER HEAVY RAIN... WHAT TO  
CHECK FOR IN YOUR SWIMMING  
POOL

**17** IS IT ALGAE, OR IS IT POLLEN?

**19** THREE STEPS TO A PERMANENTLY  
PRISTINE POOL



# The importance of **CIRCULATION** **IN YOUR POOL**

***Bionizer***

When something is just not quite right in your pool or it looks cloudy, it is often recommended to clean your pool manually. When that doesn't solve the issue and it keeps reoccurring, the next common step is to check your pool equipment.

But – what if you are looking in totally the wrong direction for a solution?

**What if we tell you that 8 out of 10 times, it is not the pool equipment that is letting you down, but the water flow in your pool.**

**The key to a clean and healthy pool is good circulation of the pool water.**

Your filter is designed to clean the water, but it can only clean water that actually passes through it. A lack of circulation will allow dirt to settle in areas of your pool that will eventually affect the overall cleanliness and clarity of your pool water. To make sure all the water in your pool gets filtered, you will need good circulation in your pool – so clean water circulates correctly and dirty water is passed through the filter.

Good circulation will not only decrease the amount of pool cleaning you will have to do, it will also decrease the amount of chemicals and sanitiser needed. Your pool water will stay healthy and clean for longer and won't need as much treatment as it would when there are dead spots in the pool where debris can accumulate. The water will also stay cooler with decent circulation.

Want to know what you can do yourself to improve the circulation in your pool? Keep reading and check out these tricks below to get the water flowing.

## THE IMPORTANCE OF CIRCULATION IN YOUR POOL

### **Check skimmer basket(s) and main drains**

The first thing you will want to do is check whether all the skimmer baskets on your pool and the main drains are operating and pulling the water from your pool into the filtration system. How? Put your hand near (not too close) the suction part of the skimmer basket and drains to check whether they are pulling the water in.

Needless to say that skimmer basket(s) full of debris and leaves will affect the circulation in your pool. Make sure to keep them clean!

### **Check return lines**

Your return lines or return jets are the outlets in your pool that bring the filtered water back into the pool. By aiming the return lines properly, you facilitate your pool water to circulate and prevent dirty water to stay in one place without going through the filter.

The goal is to try to circulate the water away from the skimmer basket (to prevent the clean water going straight back into the filter) and towards the bottom of the pool to create optimum circulation of the pool water. In order to achieve that, you should angle all your return lines to either 7 or 4 o'clock, whichever is away from the skimmer basket (same angle for all return lines).

If you have return lines in your steps, make sure to angle at least one of them at the top step. Otherwise dirt will collect on the steps. Making sure there is proper circulation in this area will prevent this.

### **Check filter pressure**

Your pool filter is a big part of the success of the circulation. A clean filter that operates at 'normal/clean filter pressure', will give you the best results. You can check the normal pressure of your filter by checking the pressure gauge after a fresh back wash or filter clean. When your pressure gauge goes to 50kPa above the "clean filter" pressure, it's time to backwash or clean the filter.

### **Check filter O-rings**

Every pool filter has a few O-rings that help seal the filter and prevent it from leaking or letting in air. The O-rings need to be lubricated and in good condition to guarantee this, especially the O-ring that you find in the pump kit. If your O-ring is cracked, you will need to buy a new one. You can check for cracks by bending it between your fingers. If it is not cracked or when you use a new O-ring apply an O-ring lube to optimise the seal and water pressure in the filter.

## THE IMPORTANCE OF CIRCULATION IN YOUR POOL

### **Limit use of suction type automatic pool cleaner**

An automatic pool cleaner might seem like your best friend when it comes to pool maintenance and of course it makes things a lot easier. Be aware that permanently leaving the suction type pool cleaners in your pool will slow the water flow down. We recommend limiting the use of these pool cleaners to once or twice a week.

### **Brush dead spots**

Now that you have checked the skimmer basket, drains, return lines and filter, you should be getting the optimal circulation for your pool with your current set up. Are you still experiencing dead spots in your pool? Brush these spots manually when your filter is running so the particles that you brush up will go through the filter before they get a chance to settle down again.

### **Add circulators to your return lines**

Another great trick is to add a circulator to your return line. A circulator will disperse the water in different directions when it comes out of the return line, allowing a much better circulation of the pool water.

### **Limit 90-degree bends in pipework**

The way the pipework has been set up, will also influence the water flow in your pool. If you are just installing a pool or reinstalling a filter or pool pump you should take the following into account:

When installing the pool filter and pool pump, make sure there are as few 90-degree bends in the pipework as possible. Preferably use 45-degree connectors where possible as these allow greater water flow and are not restrictive like multiple 90-degree pipe joiners.

For more tips on cleaning your pool, also check out our **11 steps to professional pool maintenance**.

Happy swimming!



# 11 STEPS TO MAINTAINING YOUR SWIMMING POOL LIKE A PROFESSIONAL

If we would ask you what you enjoy the most about your swimming pool, there's no way you would say: "I love maintaining it."

Cleaning and maintaining your swimming pool can seem like an endless exercise sometimes. You might even have found a great routine that seemed to work very well – until something in your water balance is way off and it looks like you've missed something.

In our experience, maintaining and cleaning your swimming pool regularly will help you keep your water balance perfectly. And in the end having a clean, well maintained and balanced pool will enable you to enjoy your pool while actually saving you time and money. That is why we would like to share our step-by-step guide to a professionally maintained pool.

## **Step 1: Clean the Deck/Surroundings**

The first thing you would want to do is clean the surroundings of your pool, whether that is a deck, tiles, garden etc. A lot of leaves and dirt can accumulate in your pool surroundings and end up in the pool. Keeping your pool surroundings clean will help prevent getting dirt, debris and algae in your pool.

## **Step 2: Check the Equipment**

A lot of people that try to find what the problem is with their pool, solely focus on the water in their pool but forget to check the performance of their equipment and what happens to your water outside the pool.

There are a few signs that indicate your filtration system might not be performing optimally. If the pressure of your pool filtration system is lower than usual, it means that something has clogged up before the filter (skimmer baskets, air in system).



## 11 STEPS TO MAINTAIN YOUR SWIMMING POOL LIKE A PROFESSIONAL

If the pressure is higher than usual, something is clogged up after the filter. This is usually due to a dirty filter but could indicate a broken filter as well. Is this not the case? Check your return lines to see if (one of) these might be closed for a reason.

It is good practice to check your equipment regularly to make sure it is operating as it should. When you know what the pressure of your pool equipment should be, you can follow up when it is lower or higher than usual. Besides checking the pool equipment, also check the pipes for leaks etc.

For a Bionizer pool we recommend checking your anodes (and recalibrating the pH probe if you have a pH Boss) to make sure these are all still functioning and not worn.

### **Step 3: Fill up your pool if necessary**

If your pool needs filling up, we recommend placing the hose on the edge of the pool instead of throwing it in the water. This way you won't forget that it is still on. Trust us, it happens quite often. You wouldn't want to waste any water.

### **Step 4: Empty the skimmer baskets**

Full skimmer baskets have more impact on the performance of your pool equipment than you might think. An overfull basket reduces the circulation of the water flow through the filtration system due to the suction load on the pump.

Besides that, even though your pool may seem to be rid of leaves and small particles, they are still in the water in the skimmer basket. In the skimmer basket the debris still forms a big biological load which promotes algae growth and cloudy water by using up copper ions that would otherwise stay free in the water. When you empty the skimmer basket, make sure to check that it is not broken or damaged.

Try a skimmer basket "sock" from time to time to remove fine surface particles which cloud the pool water. Wash and replace the skimmer sock every several days. Especially useful during weather changes when plants are shedding fine particles and pollen.

### **Step 5: Removing debris with a leaf rake**

Now that you have cleaned the debris in your skimmer basket, it is time to remove any big leaves or debris with a leaf rake. Just as in the skimmer basket, leaves in your pool can affect the pH level and contribute to algae growth.

# 11 STEPS TO MAINTAIN YOUR SWIMMING POOL LIKE A PROFESSIONAL

## **Step 6: Brush**

The next step is to brush the walls and steps in your pool. Brushing the pool will kick up all the small particles that have settled on your walls and steps. Make sure the pool pump is running while you do this so the skimmer can catch the particles before they get a chance to settle down again. You could also combine this step with the next step: Vacuum your pool, especially if you have an automatic pool cleaner.

This is also a good time to add a clarifier (try Bionizer Blue) which will entrap the smallest particles of matter in the filter. Backwash the pool around 12 hours after using a clarifier. This will prevent the small particles from finding their way through the filter and back into the pool water.

## **Step 7: Vacuum the Pool**

To make sure you get rid of all the (smaller) particles in the water, it is time to vacuum the pool or put your automatic pool cleaner in the pool.

If your automatic/robotic pool cleaner has a bag, empty it after it has cleaned your pool so it will be clean and ready for the next session.

## **Step 8: Clean the Filter**

With the extra work that vacuuming has caused the filter, the pressure in the filter may have increased. When cleaning your pool, once the pressure gauge goes to 50kPa above the "clean filter" pressure, it's time to backwash or clean the filter. You might even have to do that during the cleaning process if your pool is quite dirty.

If there is no increase in pressure, there is no need to backwash the filter just yet.

It is good practise to check your filter medium regularly. A filter with old medium will require a lot more power and pumping to achieve the same results as a new/clean filter medium. Keep in mind: the harder your pool pump has to work to keep the water moving, the more noise it will make, the more power it will draw and the more it will increase the temperature in the filter.

## **Step 9: Check Your Pool Balance Levels**

One of the most important steps in keeping a perfectly balanced pool is regular pool water testing. You can use our Bionizer test kits to test your pool water.



# 11 STEPS TO MAINTAIN YOUR SWIMMING POOL LIKE A PROFESSIONAL

**For a Bionizer pool we recommend the following levels:**

- pH: 7.0 – 7.4
- Total Alkalinity: 80 – 120 ppM
- Phosphates: < 0.5 ppM
- Calcium Hardness: 200 – 250 ppM
- Copper Ions: 0.5 – 0.6 ppM in summer, 0.3 – 0.4 ppM in winter

If your levels are not where they should be, balance your pool water according to the **Snap Pool Balance Chart**, see image below or page 35 of the Bionizer Instructions (Bionizer's online Instruction Manual can be located: <https://www.bionizer.com.au/instructions/>)

Is your copper level far below the required range? Start the Bionizer boost function and use copper levels from your recent test (see Bionizer Instructions). Otherwise, simply adjust the output settings of the Bionizer to get the right amount of copper ion output.

Are you having trouble getting your balance right? Check our troubleshooting page for suggestions and tips.

## Snap Pool Balance Chart:

| Water Balance Tests             | Required Range     | Treatment Product   | Period    |
|---------------------------------|--------------------|---|-----------|
| 1. pH                           | 7.0 to 7.4 pH      | Hydrochloric Acid<br>(2.0 FL OZ (50mL) / 2,500 Ga / □pH 0.1)              | Weekly    |
| Copper Ions (Cu <sup>2+</sup> ) | 0.5 to 0.7 ppM     | Bionizer Program Settings<br>(Turn output % Up or Dn)                     | Weekly    |
| 3. Total Alkalinity (TA)        | 80 to 120 ppM      | Buffer / Soda Bi-Carb<br>(7 OZ (200gm) / 2,500 Ga / □10ppM)               | Monthly   |
| 4. Phosphates                   | < 0.5 ppM (500ppB) | Starver / Phosphate Remover<br>(4.0 FL OZ (100mL) / 2,500 Ga / treatment) | Monthly   |
| 5. Calcium Hardness             | 200 to 250 ppM     | Calcium (Hardener) Chloride<br>(3.5OZ (100gm) / 2,500 Ga / □10ppM)        | Monthly   |
| Total Dissolved Solids (TDS)    | <1000 ppM          | Clarify with Polysheen Plus<br>(or another Cationic based clarifier)      | Quarterly |

## 11 STEPS TO MAINTAIN YOUR SWIMMING POOL LIKE A PROFESSIONAL

### Step 10: Weekly Treatments

After following all the above steps your pool should be almost perfect. If you do any other regular treatments on your pool, now is the time to do so (algae treatments or clarifier).

Try **Bionizer Ionlife+** for a new way to make your pool bulletproof to turning. Great if your maintenance regimen is a tad slack or if you are leaving the pool for a period and going away.

If you do go away for a while then make sure you clean and balance the pool before going. We also recommend adding some Ionlife+ and get a neighbour or friend to pop in once or twice to empty the skimmer box, check the water levels and give the pool a brush.

For our Bionizer customers: If you don't have an Eco-Oxidizer that gets rid of the hazy appearance that sometimes appears due to body oils, sun tan lotions and swimmer waste, make sure you add an oxidiser to the pool. You could use liquid chlorine but if you are looking for chlorine free solutions we recommend using Potassium Monopersulphate or Hydrogen Peroxide. If you add around 300ml of liquid chlorine per 50,000 litres after sun down, follow up with several hours of filtering and the chlorine can do its job and stay in your pool overnight. It will be burned off by the sun by 9 am the next day leaving your pool water polished up and crystal clear again.

### Step 11: Almost done

Now that you have checked your equipment, you have rid your pool of any debris and your water balance is perfect, it is time to put all the test kits, supplements and equipment away. Don't forget to turn off the hose that you might still have in your pool.

We recommend cleaning your pool regularly, but we understand that sometimes you just simply don't have enough time or energy to do it all. Our most important tip: Keep testing and balancing your pool water. Give the pool a thorough brushing every week or so as well: the old tricks work the best!

### Keep this in mind:

It is usually easier and a lot less expensive to prevent issues from occurring in the first place than it is fixing them after they appear.

**Enjoy your pool!**



# How To Fix A Cloudy Swimming Pool

## **My pool is cloudy – Now what?**

Imagine waking up on a beautiful day only to see your pool has gone cloudy overnight. It happens. Not only is a cloudy pool annoying, it can be very difficult and time-consuming to get your pool clear again.

In this post we will look at the reasons as to why a pool goes cloudy and how you can overcome the cloudiness without too much drama and time spent. In order to be able to easily and effectively clear the cloudy water, it is important to understand what causes the pool water to go cloudy.

## **Why does my pool go cloudy?**

### **The environment:**

Everything that surrounds your pool can cause your pool water to go cloudy. The natural water created by the Bionizer can be easily affected sometimes if the pool water is not in balance. So it isn't just the people in the pool that have an effect on the water, but also the weather, birds, trees, shrubs, gardens, nearby construction etc.

### **Water/chemical balance:**

If your pool water is out of balance, your pool will be more vulnerable to environmental effects. An excessive amount of pool chemicals as can a lack of pool chemicals or lack of pool maintenance can cause your pool to get out of balance. High pH, high total alkalinity and/or deficient calcium hardness levels and phosphates along with sunscreen oils and swimmer waste can produce conditions that cause cloudy water.



## HOW TO FIX A CLOUDY SWIMMING POOL

### **Filtration system:**

Another explanation for cloudy water is a filter that needs backwashing or cleaning, but also other faults in the filter could have occurred.

### **Body oils and bather load:**

If you are not using an Eco-Oxidizer or other oxidising device or additive with your Bionizer, bather load, body oils and swimmer waste can cause your pool to go cloudy. Chlorine or chlorine from salt chlorinators burns these oils off the water but, with a pool ioniser like Bionizer, you can choose your own chlorine free oxidising agent (see below for recommended options).

### **How do I clear my cloudy pool?**

#### **Balance levels**

The first thing that you will want to do is check the levels of pH, total alkalinity, phosphates and calcium hardness and adjust them to the recommended levels as per Snap Pool Balance Chart (page 35 of Bionizer Instruction book).

#### **Check filter**

Check your filter equipment. Backwash or clean if needed. There could also be a fault in the filter that needs fixing. Is the filter medium old and or worn?

#### **Oxidise the pool water**

If you are not using an Eco-Oxidizer or other oxidising device in conjunction with the Bionizer, then the use of a chlorine free oxidiser such as Hydrogen Peroxide or an Oxy Shock such as one that contains Potassium Monopersulphate should clear the cloudiness. Also some liquid chlorine may be used. Add to the pool late in the day and run the filter for several hours and the water should be sparkling again by morning. The liquid chlorine used should preferably be unstabilised.

#### **Add clarifier**

If the water remains cloudy after these checks and tricks, then use a compatible clarifier such as Bionizer Blue. A clarifier collects the smaller particles together so they become big enough to be filtered out of the pool water by your filter. For a Bionizer pool, make sure the clarifier you use is Polymer based and that it doesn't pull metals from the water in your Bionizer pool.

#### **Add pool flocculant**

Another effective but time consuming alternative is a pool floc or flocculant. A pool flocculant works by binding the particles together and sending them to the bottom of the pool. This will create clumps of matter on the floor of your pool.

## **HOW TO FIX A CLOUDY SWIMMING POOL**

This alternative, unlike the clarifier, does not enable your filter to pick up the particles but collects them on the bottom of the pool so you can manually vacuum the matter out of your pool water. Do not use an automatic cleaner but use your pool pump, filter to waste (or backwash) and manually vacuum the pool until the cloudiness is gone. The reason you filter to waste is that otherwise it will end up back in your pool again. Be aware that this alternative uses a lot of water and you will have to top your pool back up with new water. Ideally fill the pool to the brim before commencing the vacuuming action.

These are our recommended steps and tricks as to how to get rid of cloudiness in the pool and to get you back in a sparkling and clear pool as soon as possible.

Note: If you go to your pool shop to purchase any chemicals you might need, make sure they are compatible with pool ionisers.

**Happy Swimming!**



# AFTER HEAVY RAIN... WHAT TO CHECK FOR IN YOUR SWIMMING POOL

Here in Australia it can rain for days or even weeks so now seems like the perfect time to talk about what to do to your pool after you have had heavy rain in your area.

Light rainfall or minor showers usually don't have too much of an impact on your pool, however we still recommend checking your pool water chemistry either way. After heavy rains though, do yourself a favour and take a little time to correct any imbalance levels.

You might already know, and otherwise it won't surprise you, rain can sometimes have a major effect on your pool water chemistry. Not only can the heavy rain dilute your pool water, rain water is usually alkaline (and can even be acidic at times) which would have an effect on the pH level of your pool water.

To make sure your pool bounces back perfectly after (heavy) rainfall we have a five step guide that we recommend following:

## **Step 1: Clean your pool**

If you have had heavy rainfall this could have been combined with winds or storms which might have blown debris and dirt in your pool. The first step is to get rid of the debris in your pool so your Bionizer (or other sanitiser), filtering and pumping system's performance won't be affected by this.

Check out our **BioGuide** for tips and tricks on pool maintenance and cleaning.



## **AFTER HEAVY RAIN... WHAT TO CHECK FOR IN YOUR SWIMMING POOL**

### **Step 2: Check your water level**

The rain has likely caused the level of the pool water to raise. If needed, you can drain your pool by activating your filter's 'backwash' setting until the pool water has reached the desired level. We recommend doing this before testing your pool water.

### **Step 3: Check for phosphates**

Rain brings phosphates to your pool, which is food for algae. In order to prevent algae attacks, you will have to remove the phosphates. You can simply do that by adding a phosphate remover to the pool water. We recommend using our effective and super concentrated Bionizer PFP that will quickly and safely rid your pool of phosphates.

### **Step 4: Test the pH and total alkalinity levels in your pool water**

In case of alkaline/acidic rainfall, the pH level and especially the total alkalinity level in your pool will have changed. Make sure to balance your pH and total alkalinity levels according to your pool balance snap chart before continuing to the next step.

Do you have Bionizer's pH controller 'pH Boss' to monitor and balance your pH level? You will still need to test the levels and likely add some buffer or sodium bicarbonate to aid with the total alkalinity levels. With a pH Boss however, maintaining the pH levels at the right setting will be automatically taken care of.

### **What about the calcium levels?**

Your calcium levels shouldn't have been affected much because of the rain. If you haven't tested your calcium levels recently, we recommend doing it now that you are balancing your pool water anyway. Low calcium level can result in a lower copper reading than the actual copper level. It is better to be sure about your readings before adjusting the copper levels to prevent over-ionising your pool.

### **Step 5: Test the copper levels (or other sanitiser levels)**

Now that you have balanced your pH and total alkalinity levels, it is important to check the copper ion level (or chlorine or other sanitiser levels) in your pool.

Rain often brings contaminants to your water, not just from the rain itself, but also from run off from your pool deck or surroundings. The copper ions in your pool will work hard to get rid of these contaminants that have been introduced to your pool during rainfall or possible storms. This will probably have caused your copper levels, or any other sanitiser levels, to drop.

## **AFTER HEAVY RAIN... WHAT TO CHECK FOR IN YOUR SWIMMING POOL**

### **What to do when copper levels are down?**

Are your copper levels down? Enter the measured copper level to activate the boost function on your Bionizer to increase the copper level to the desired level (page 18 of your Bionizer instructions).

### **Optional step 6: Oxidize the pool water**

Does your pool water still look a little bit hazy or cloudy? We recommend oxidising your pool water to get rid of the hazy look. There are several methods to oxidise your pool water. The cheapest way of oxidising is adding a cup of chlorine for every 10,000 litres of pool water. Chlorine free solutions such as Potassium Monopersulphate and Hydrogen Peroxide are also very suitable. Use as per instructions on the packaging. Add the oxidiser of choice to your pool late in the day and run your pool pump for several hours. Your water should be sparkling the next morning.

Or for a potent and hands free solution, consider an Eco-Oxidizer for your pool to keep your pool water sparkling and free of contaminants that make your pool look hazy.

Do you have a chlorine pool? Instead of oxidising your pool water, shock your pool to get rid of chloramines in your pool.

After the rain, back to swimming

Now that you have brought your pool balance back to the correct levels you can go back to swimming in your nice pool. If you have followed the steps as mentioned above you won't have any rainfall related troubles such as algae attacks or cloudy pool water.

**Enjoy your pool!**



# IS IT ALGAE, OR IS IT POLLEN?

## Is it Algae, or is it Pollen?

Imagine this: You wake up and are you about to go for an early swim but ugh... the pool is green!

You immediately think; Algae Attack! Water is balanced, copper levels good, pool is clean... Your pool water seems to be of good quality but you see something completely opposite. What is going on? **Don't treat it as Algae yet.**

It may seem like algae but it might not be. Before you try to treat it, make sure to check the below water interior of the skimmer box. If it isn't slippery/slimy, then it is probably not algae but Pollen. Spring and early summer is Pollen time so stay aware. When pollen gets into your pool it is hard to get out because the particles are too small to catch for most filters.

### How to treat pollen:

Simply use some clarifier. A clarifier will coagulate the pollen particles so that they can be caught by the filter or the skimmer box. We recommend our Bionizer Blue clarifier. It is double the strength of similar products and a must have for every pool. The pool water will regain its clarity and sparkle like never before.

Alternatively, Bioguard "Polysheen Plus", Focus "Liquid Flocc" or Lo-Chlor "Ultra Clear 4 in 1" clarifier are all also good to use. Make sure the clarifier/flocculant that you use is Polymer based and that it doesn't pull metals from the water in your Bionizer pool.

Use the clarifier according to instructions on the bottle and the 'fake algae' will be gone.



## Is it Algae, or is it Pollen?

Beware: Don't treat the pool water with liquid chlorine as it will only bleach the pollen for a week and then it will be visible again.

After treating your pool with a clarifier you should be able to enjoy your pollen free pool within hours!

**Enjoy your Bionizer pool!**



(VERY SIMPLE)

# THREE ↑ STEPS TO A PERMANENTLY PRISTINE POOL

**Rule number one-** Keeping a pool looking great is not rocket science. Just follow several easy steps and you cannot go wrong... 97% of the time anyway. We will cover the 3% chance of a hiccup at the end, but just do what we show you here and your pool will look as sweet as an oasis does after a 6 day desert camel trek. If your pool has decent circulation (water moving freely around the pool with no dead spots) then the rest is easy.

A pool with poor water circulation (old or under powered pump, poorly plumbed system, pipe diameter too small with too many right angles, old or worn filter, filter requires new sand/glass or a new cartridge etc) is never easy to maintain no matter what system you have.

OK...now down to the 3 basic rules or steps that you need to know in the event your pool water appears to be a little dull or cloudy.

1. Balance the water
2. Oxidize the water
3. Clarify the water

## Balance the Water

The things you really need to keep your eye on are:

- **pH:** Maintain pH at 7.2 to 7.5 (Algae loves high pH, keep it in the advised range)
- **Total Alkalinity:** Maintain total alkalinity at 80-100 (these levels don't fight the pH)
- **Copper Level:** Maintain the copper ion level at 0.5-0.6 ppm (most effective range)
- **Phosphates:** Maintain phosphates <200 ppm. (Algae loves high phosphate levels) •

**Calcium Hardness:** Maintain calcium hardness at 200 to 250 ppm We suggest doing the copper, pH and total alkalinity tests once per week...once per month (or after adverse weather) for the calcium and phosphates.

## Three Steps to a Permanently Pristine Pool

**Important:** Do not add a lot of chemical or product to the water at one time, add smaller amounts more often as this creates a natural equilibrium in the pool water. Remember water is a living thing, it likes to be treated well. Watch how happy it looks when no/low levels of toxic chemicals are in the pool. True! You will notice how it sparkles and creates small vortexes as it circulates. Happy and healthy!

### Oxidize the Water

Copper/silver pool water ionizers do not oxidize oils and contaminants that can create cloudy or dull water. Chlorine and peroxide are oxidizers and therefore are able to burn off the suntan oils and perspiration that would otherwise cloud the water. If the pool water hasn't improved after the water has been rebalanced or it was in balance and still looks cloudy then add an oxidizer. Chlorine free oxidizers such as potassium mono-persulphate are available at pool stores. Even a scoop of a "Nappy San" type of product will oxidize the pool water very well and it will sparkle again. Otherwise a cup or two of liquid chlorine in the evening will restore the appearance of the water by morning if the filter runs for several hours. The sunlight will remove the chlorine rapidly by the next day so the pool water is fresh and clean once again.

### Clarify the Water

**TDS** or **total dissolved solids** also contribute to unbalanced and dull cloudy water. If the water is balanced and oxidized then adding a polymer based pool water clarifier is the 3rd step. Simply add according to directions on the label and filter for 8 hours or so and backwash the filter or clean the cartridge immediately afterwards. This prevents the residue churning through the filter and returning to the water. Your pool water should be clean and sparkling once more.

Now... in some rare cases these three steps do not bring the pool water back to life again then you will have to do this...

### Flocculant

Time for the heavy flocculant (once again a polymer type) that will "drop out" any oxidative overload to the bottom of the pool. Once it does this you simply vacuum the dropout to "waste" and bingo the water will be clear and clean again. Get a decent flocculant from your pool store.

Lo Chlor "Maxi Floc" is an effective product. Use according to directions and put the filter on re-circulate overnight then turn off allowing the residue to fall to the bottom of the pool where you can vacuum to waste...not back into the filter. If you have a cartridge filter remove the cartridge until after the residue has been vacuumed away.



## Three Steps to a Permanently Pristine Pool

Finally, if these steps have still failed to return the pool water to its sparkling best the issue lays with your filter... no ifs or buts.

### **Filter**

Your filter in most cases will simply require a sand/glass or cartridge change. Boom as soon as this is done the stress is gone! A sparkling pool again. Wow. It is almost unbelievable after the four-step process that the real issue is/was the filter. Trouble is you need to take the first three steps first as these will sort out 97% of cloudy pool water issues.

Then do heavy Flocculent... then the filter. There is nothing outside of these steps. It cannot be anything else providing the circulation and water movement are efficient.

Sand or cartridge change doesn't do it? You have still got a filter problem. Check that the seals and laterals are all OK and even check the filter barrel. It could be warped or too old meaning new filter.

There it is in plain English.

These 3 steps fix cloudy pool water 97% of the time.

**Happy Swimming!**

