



## Cloudy Water

### Causes, Treatment, and Preventive Measures

Cloudy or milky swimming pool water is caused by these main issues and they are; improper levels of chlorine, imbalanced pH and alkalinity, very high Calcium Hardness(CH) levels, faulty or clogged filter, early stages of algae.

### Ways to Clear a Cloudy Pool Water

1. Monitor and balance pH and TA levels
2. Correct Calcium Hardness levels
3. Backwash filter or replace filtering agent
4. Remove foreign particles, scrub, and vacuum up the pool

### More Reasons why your Pool is Cloudy?

1. **Imbalanced chemicals:** An improper chemical balance might mean there is too much or too little chlorine, the pH, alkalinity, calcium hardness, or stabilizer(Cyanuric acid)
2. **Faulty filter:** Poor filtration means you might not be running your filter long enough, clogged filter
3. **Environmental factors and debris (particles):** Dust, pollen, and leaves can build up in your filter and impede the cleaning process..

### How wrong or Imbalanced Pool Chemicals Cause Cloudy Water

Pool chemistry is the trickiest part of pool management. Using wrong chemicals or adding incorrect amounts are the major causes of cloudy water and may even lead to algae if extra care is not taken.

- **Improper pH and chlorine levels:** These are the most common culprits. The pH is not directly associated with cloudiness in the water, but it affects how chlorine and other chemicals work in your water. Very high pH usually leads to calcium not dissolving properly causing cloudy pool water and calcium scaling both in saltwater and non-saltwater pools. On the other hand, if your pH gets too low, chlorine becomes very reactive and depletes very fast forming lots of combined chlorine (chloramine), which

turns the water cloudy and is ineffective in killing bacteria, algae, and other microorganisms in your water.

- **High total alkalinity (TA):** You also need to closely monitor changes in the level of TA. A high TA causes pH and calcium scaling, both of which are associated with cloudiness.
- **High Calcium Hardness:** Very high Calcium Hardness levels in pool water will lead to excess calcium, which can't dissolve in water and accumulates in your pool causing cloudy water that won't clear up and calcium scaling inside the pool and sometimes scales might clog your filter leading to poor filtration and dirty or cloudy water. Remember to keep CH level between 200 and 400ppm all the time.
- **Other Chemical imbalance:** High levels of cyanuric acid (CYA) might also cause cloudiness. If you are using cyanuric acid often, make sure that the CYA and free chlorine levels are balanced because excess CYA will significantly reduce free chlorine, and you might end up with severe cloudy water

### Ideal Chlorine Levels

Total chlorine should be 3 ppm and Combined Chlorine should always be below 0.5 ppm (or 0 ppm if possible) to avoid chloramine.

#### 1. How to Clear Cloudy Pool Water Caused by Low Free Chlorine

Low free chlorine levels are caused by heavy usage, heavy rainfall (which dilutes the chlorine), or hot sunny days when UV light oxidizes lots of free chlorine. If you have an outdoor pool, you can use a chlorine stabilizer, such as cyanuric acid, to prevent chlorine depletion as a result of direct UV light. Remember that cyanuric acid is very strong, and if it exceeds the recommended levels, free chlorine will disappear, and the water will turn cloudy and be at high risk of algae growth.

#### 2. Monitor pH and Total Alkalinity

The level of pH in pool water affects how all other chemicals function, including chlorine. When pH level gets too high, chlorine will become ineffective, and we all know how important chlorine is in a pool, high pH also make water look dull and should always be within the recommended range.

#### How to Balance the pH in Your Pool

To lower pH, you need to use a pH reducer (pH minus), add Pool acid. Anything below a pH of 7.0 is too low, and apart from turning water cloudy, this environment brings about harmful bacteria causing algae.

To increase low pH levels, you need to use soda ash.

#### How to Balance Total Alkalinity (TA)

Finally, ensure that **total alkalinity is within the required range of 80 ppm and 120 ppm** to avoid bringing up pH levels and causing calcium scaling. To lower alkalinity add acid.

### 3. Clean the Pool Filtration and Circulation Systems

A poor water-circulation system can also be a big problem. If your water cannot circulate properly, it will become stagnant and cloudy. To fix this problem:

- Make sure the filtration system is running long enough. For home pools at least 8 hours a day is sufficient.
- **Eco-Fiber** unlike Filter Sand cannot be backwashed. The Fiber strands hold dirt so effectively that even attempting to backwash will result in only wasting water. Water that may have become cloudy due to poor filtration would mean removing the Eco-Fiber and giving it a quick wash. This process is done by removing the fiber from the filter, dipping the Fiber in a clean bucket of water and squeezing them out like a bath sponge and replacing them back into the filter. Problematic pools which have been dirty for some time may need to have the Fiber cleaned a little more often until the pool water is clear. In the past dealing with Problematic/dirty pools, we would clean, backwash and rinse everyday to achieve a clean pool. This results in thousands of litres of wasted water.
- Ensure when using sand/glass in your filter that you regularly clean, backwash, or replace the media after approximately 2 years. Cartridge filters should be removed and washed at least once p/month as appropriate. Cartridge filters usually last 2,000 hours and should be replaced every 1-2 years, depending on usage.

### 4. Remove Foreign Particles, Scrub, and Vacuum the Pool

The environment and weather may also be the cause of cloudy water. To fix and prevent cloudy water, follow all of the best practices below.

- Foreign particles, small and large, may find their way into the water, especially during spring. Body oil and sunscreen from swimmers also washes off in the water and accumulates in the pool, causing cloudiness. You can use nets to remove visible particles, and you may have to use pool clarifier to clear up the water when cloudiness persists. Also, I prefer using a Flocculent and vacuuming the pool to do away with fine particles that cannot be removed by leaf net or clarifier.
- Algae also causes cloudiness in its early growth stages. To remove algae, scrub and clean the pool using a large leaf net and vacuum: Then do a pool shock to get rid of any remaining algae. Control the amounts of pH, chlorine, TA, to prevent algae growth.
- Rain also contributes to cloudy water because it dilutes and therefore reduces free chlorine levels. All you have to do is test the chemicals, paying close attention to the chlorine levels, and adjust them as appropriate.

### 5. Can I Use Algaecide to Clear Cloudy Pool Water?

You can use algaecide to kill early stages of green algae that might make your water appear cloudy, but the best method of getting rid of algae is to scrub, clean using a large leaf net, vacuum and kill it with an Algaecide.

You should only use algaecide once in a while for preventive measures and when green algae is just starting to show up: It is not useful when algae outbreak is immense and very visible.

### Why Is the Pool Cloudy After a Rain?

Rain water brings dirt, mud, dust, and other contaminants that contain phosphate, which breeds algae. With the presence of phosphate, the water will start to become cloudy even before the algae begins to grow. If you know a storm or shower is about to come, make sure there is ample chlorine to counter the dilution that rain water will bring, and have the filter running during the rain.

### Why Is My Pool Cloudy When the Chemicals Are Balanced?

When all the pool chemicals are fine but your water is still cloudy, there is a good chance that you have particles in your pool. In this case, a Clarifier is used to collect all the fine particles so that they can be picked up by the filter.

Alternatively, you can use pool floc (flocculant), also known as a super floc, which is a chemical that is used to bring all the clouding particles to the bottom of your pool forming a large cloud that you can then vacuum up. The particles collected using a pool floc will not pass through the filter like they would if a water clarifier were used. Make sure that your filter is set on the **backwash** or **waste** option when you are vacuuming to avoid any damage that may happen to the filter as a result of clogging.