



POOL CHEMISTRY 101

(assumes average pool size of 20,000-30,000 gallons)

Always read and follow the chemical manufacturer's dosing instructions. The following are generalized suggestions for adjusting specific aspects of water chemistry.

Ideal pH Range – Keep pH between **7.2 – 7.6 ppm**.

- To lower pH, use muriatic acid. Add ½ gallon to lower pH .2 ppm. (*Liquid muriatic acid is recommended.*)
- To raise pH, use soda ash. Add 1.5 lbs. to raise pH .2 ppm.

Ideal Alkalinity Range - Keep alkalinity between **80-120 ppm**.

- To lower alkalinity, use muriatic acid. Add ½ gallon to lower alkalinity 10-30 ppm. (*Liquid muriatic acid is recommended.*)
- To raise alkalinity, use sodium bicarbonate (aka alkalinity increaser). Add 5 lbs. to raise alkalinity 10 ppm.

Ideal Chlorine Range – Keep chlorine between **1-3 ppm**.

(In cooler weather, chlorine can be maintained around 1.5 ppm. During warmer months like June, July and August, chlorine should be maintained around 3 ppm. Also, it is best to use liquid chlorine in cooler months, and chlorine powder, like cal hypo, in warmer months.)

Traditional chlorine pool:

- To raise chlorine using liquid chlorine, add 1.5 gallons to raise chlorine 1.5 ppm.
- To raise chlorine using chlorine powder, add 1.5 lbs to raise chlorine level 1 ppm.
- If chlorine is 0, add 2 lbs. of shock for every 1 ppm you wish to raise.

Ideal Calcium Range – Keep calcium between **200-400 ppm**.

(Do not raise calcium level on pool less than 30 days old.)

- To raise calcium, add 2.5 lbs calcium chloride (aka calcium flakes) for every 10 ppm to be raised.
- To lower calcium, drain some water from pool and fill with water that has a lower calcium level.

Ideal Cyanuric Acid Range – Keep traditional chlorine pools between **30-50 ppm**. Keep salt pools between **40-80 ppm**. (*Cyanuric acid is also known as chlorine stabilizer or conditioner.*)

- To raise cyanuric acid, use liquid stabilizer. Add 1 gallon to raise cyanuric acid 10-15 ppm.
- To lower cyanuric acid, drain some water from pool and fill with fresh water.

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ADDING CHEMICALS TO THE POOL

*****ALL CHEMICALS SHOULD BE ADDED WHILE POOL IS CIRCULATING*****

Diatomaceous Earth – used immediately after DE filter is backwashed

- Add directly to the skimmer (open lid on deck).

Chlorine Tabs – used to maintain chlorine level

- Add to a chlorine floater, chlorinator or the skimmers.

Chlorine Powder/Shock – used to raise to chlorine level

- Option 1 – Mix in a bucket until completely dissolved. Pour into the pool. (recommended)
- Option 2 – Add directly to deep end of the pool. Brush immediately until completely dissolved.

Liquid Chlorine – used to raise the chlorine level

- Add to the pool directly.

Liquid Muriatic Acid (preferred over dry muriatic acid) – used to lower the pH level

- Add to deep end of the pool. **IMPORTANT:** Pump must be running when muriatic acid is added and for 2 hours afterwards. Never add muriatic acid to the skimmer.

Dry Muriatic Acid – used to lower the pH level

- Mix in a bucket until completely dissolved. Pour into the deep end of the pool.

Soda Ash (aka pH Up) - used to raise the pH level

- Add directly to the skimmer (open lid on deck).

Sodium Bicarbonate – used to raise the alkalinity level

- Add directly to the pool and brush until dissolved.

Calcium Chloride (aka Calcium Flakes) – used to raise calcium level

- Mix in a bucket. Add directly to the pool.

Algeacide – used to control and/or prevent algae

- Add directly to the pool.

Stain & Scale – used to control and/or prevent staining and scale formation

- Add directly to the pool.

Cyanuric Acid (aka Stabilizer) – used to raise cyanuric acid level

- Add directly to the skimmer (open lid on deck).

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