

Swimming Pool Shock

[Pool shock](#) refers to a granular oxidizer, a powdered form of chlorine that is used for pool water treatment. In addition to the noun *pool shock*, it can also be used as a verb, in the act of shocking a pool, or adding granular oxidizer (pool shock) to the water in sufficient quantity for the desired change.

When to Use Pool Shock



Why do you need to shock a pool? Pools are shocked to remove combined chlorine molecules, aka chloramines from the water. Pools are also shocked to remove excess bather waste and bacteria after heavy pool use, contamination events, or for the removal of visible algae in the water. Bromine treated pools and spas also use pool shock to reactivate bromide ions in the water.

Start-Up and Close-Down: For pools that are winterized, opening the pool is the first time of the year that pool shock is used, after the water chemistry is balanced. This helps oxidize particles, kill bacteria and algae and restore water clarity. Prior to closing the pool, pool shock is used to disinfect the water, in preparation for the long winter ahead.

Heavy Rain: Rain is pure water, distilled by evaporation, but as it falls through the air, it picks up airborne particles that wash into your pool. Air pollution, dust, pollen, algae spores can discolor the water, consume your chlorine, and affect water chemistry. During heavy storms, overhanging trees, overflowing planters or lawn areas next to the pool can wash in soil laden with bacteria and phosphates, in addition to of tree and plant debris.

Chloramines: Free chlorine becomes combined chlorine when bonded to nitrogen or ammonia. The bond renders the chlorine molecule useless and causes the pool water to smell strongly of chlorine and irritate swimmers eyes. [DPD test kits](#) can test for both Free and Total chlorine, with any difference in the test results being Combined chlorine. Shock the pool to remove chloramines when levels exceed 0.3 ppm.

Algae: Pool algae growth can be controlled with algaecide, but to kill algae and clear the pool, we use pool shock. 30 ppm is a general target for algae removal, although it depends on the severity of the algae, and also the type. Green algae blooms may require less chlorine shock than Yellow algae or Black algae. Chlorine Accelerators, such as [Yellow Out](#) work to boost your chlorine level to fight severe algae blooms, of all colors.

Other Uses: For pools that have hosted a party for a dozen or more swimmers, or if a pool becomes contaminated with urine, feces or vomit, a strong shocking is in order. In cases where chlorine levels have depleted, due to hot temperatures, faulty equipment, or operator error, pool shock can be used to quickly raise chlorine levels.



How often do you need to shock a pool? Every pool is different, and pools don't need to be shocked, unless they need to be shocked – to remove bacteria, algae, chloramines or other contaminants, or to help clear cloudy pool water or some other water problem. You can test for chloramines and you can see algae, but bacteria and other pathogens are invisible. For this reason, many pool owners shock the pool every 3-4 weeks, even though the water may be clear and clean, just to be sure it's disinfected and sanitary.

Chemicals Used as Pool Shock

For a pool that uses chlorine or bromine for daily chlorination, there a variety of EPA approved chemicals that can be used for shocking the pool. The best one for your pool may depend on your pool type, or if you have issues with hard water or high cyanuric acid levels.

Calcium Hypochlorite: [Cal Hypo](#) for short, is the most economical pool shock you can buy. It is available in 65% and 73% strength, pH level of 12, and is not stabilized.

Lithium Hypochlorite: [Lithium](#) for short is a very fast burning and quick dissolving shock for pools with cloudy water. 35% strength, ph level of 10, and is not stabilized.

Sodium Dichlor: [Dichlor](#) for short, is stabilized pool shock, with cyanuric acid as protection from the sun. 56% strength, with a nearly neutral pH level. Adds no calcium to the pool.

Potassium Monopersulfate: [Non-Chlorine](#) Shock for short, oxidizes pool water in a chlorine free formula that is not affected by sunlight, leaves no residue, and adds only oxygen.



Which pool shock to use? Most pools can use Cal Hypo, but for those in hard water areas, with concerns of growing calcium hardness levels, Sodium Dichlor or Non-Chlorine shock may be a better choice. Each pound of Cal Hypo will add 5-7 ppm to calcium hardness levels. Vinyl pools benefit from non-chlorine shock or Lithium shock, which won't bleach or fade vinyl liners, and also don't cloud the water or leave behind a dusty residue. Pools with growing cyanuric acid levels may want to avoid Dichlor shock; each pound adds 7-9 ppm to cyanuric acid levels.

In The Swim Cal Hypo pool shock is packaged in easy-opening 1 lb. bags, in a [65%](#) Pool Shock or [73%](#) Super Shock. We also have Instant Pool Shock in [1 lb bottles](#), and Cal-Chlor, in [25 and 50 lb buckets](#); easier to use when adding large amounts of pool shock at one time. Chlorine-Free, Lithium and Dichlor [pool shocks](#) are all available in 1 lb. bags.

A new type of pool shock is now available, in the form of a single use gel cap that you place in your skimmer (don't add other types of pool shock to your skimmer). [Safe-N-Clean](#) Pool Oxidizer is a non-chlorine oxygen based oxidizer that treats up to 30,000 gallons.

Waiting to swim after shocking. Follow package instructions, which will guide you in how long to wait after shocking before swimming. Heavy shocking with granular chlorine will generally require 24-48 hours before the chlorine level has dropped to safe swimming levels (below 5 ppm). Lithium and Non-Chlorine shock labels typically allow immediate swimming, but check the package label, to be sure.

Estimating Pool Shock Amount

How much pool shock to use? You'll need to first know the amount of water in your pool, give or take a few hundred gallons. If you aren't sure, take some measurements and consult an online [pool volume calculator](#). Generally speaking, the dosage amount of pool shock is 1 lb. per 10,000 gallons, but consult the shock package label. Depending on the severity of the problem you are addressing, you may need a double or triple dose, to successfully fix the issue.

For chloramine removal, shock the pool to reach a Free Chlorine level that is 10 to 20 times the amount of measured chloramines. For algae removal, 30 ppm is a generally accepted target, but you may use more or less, depending on the severity of the algae bloom. You can check [poolcalculator](#) for amounts of pool shock needed to reach a specific ppm level. Another rule of thumb in algae removal is that if the water is still green, you need more. For boosting chlorine levels that have dropped to zero, 1 pound of pool shock will usually be sufficient.

Pool Shock Shelf Life



How long does pool shock last? Granular chlorine products will lose only a small percentage of potency, when stored in a cool, dry and dark location. When stored in a shed or garage however, the varying temperature and humidity levels will begin to solidify the contents, and within a few years, the 1 lb. plastic bags will deteriorate. For longer and safer storage, we recommend buying loose [Cal Hypo](#), or [Non-Chlorine](#) shock in buckets. Store in a dark and cool location, with a very tight lid to keep out moisture and contamination and to prevent off-gassing.

Pre-Dissolving Pool Shock in a Bucket

For vinyl liner pools, undissolved granules resting directly on vinyl can bleach, fade or corrode soft vinyl surfaces. Pre-dissolving is accomplished by filling a clean 5-gal bucket full of pool water. Pour in 1 or 2 lbs. of granular pool shock directly into the water (always add chemicals to water, not water to chemicals). Stir with a yardstick or suitable paddle for several minutes to dissolve the granules. Pour the solution around the edge of the pool, and as the bucket is almost empty stop, add more water to dissolve remaining granules in the bottom of the bucket. Vinyl pools can avoid pre-dissolving by using non-chlorine shock or lithium hypo shock.

Pool Shocking Tips

- Balance pH to 7.2 – 7.4 before shocking, for the most powerful effect.
- Add Pool shock separately, it can destroy or disrupt other treatment chemicals.
- Never allow pool shock to become hot, moist or contaminated with dirt or debris.
- Never allow pool shock to mix with any other pool chemical, even the same type.
- Never store opened bags of shock, which can spill. Use entire bag at one time.
- Never pour pool shock into the skimmer, pre-dissolve for use in vinyl liner pools.
- When broadcasting shock across the surface, be mindful of the wind direction.
- Brush the pool after shocking, and filter the water for at least 8 hours afterward.
- If chlorine level is zero within 8 hours of shocking pool, shock pool again, harder.
- Shock your pool after the sun goes down, to reduce effects of UV degradation.