
























# Cal Hypo: Simply Better Chemistry



As one of the most widely used chemicals for sanitizing commercial pool water, calcium hypochlorite (cal hypo) is the only commercial pool treatment sanitization method that chlorinates, removes organics and metals, boosts hardness and shock treats in one process. All while increasing calcium levels to protect plaster in addition to balancing alkalinity to stabilize pH.

At Pulsar®, we've been innovating commercial pool and spa treatment for decades, and our focus and commitment to evolving and perfecting cal hypo feed systems is at the core of our chemistry. It's how we deliver crystal clear water and safer water environments with Pulsar® cal hypo high-erosion feed systems routinely achieving solution consistencies within 0.2 ppm of set point.

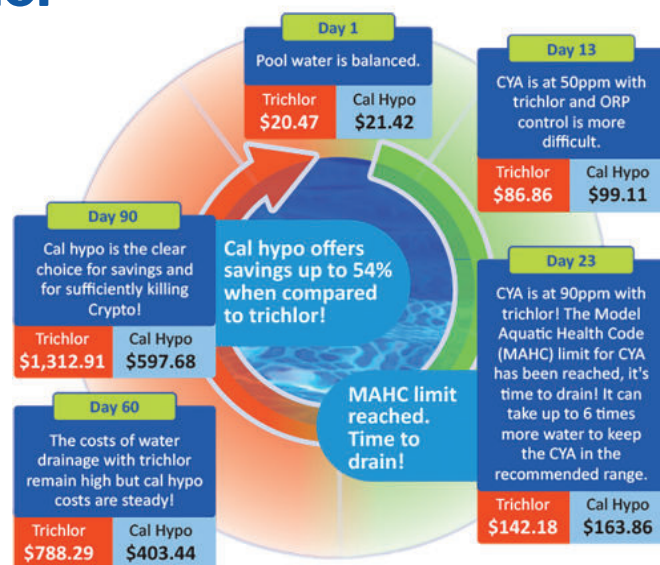


	 Kills Bacteria	 Minimal Degradation after 1 year	 Plaster Protection	 CYA-free	 Works with ORP	 High Chlorine Output
<b>CALHYPO</b>						
<b>TRICHLOR</b>						
<b>BLEACH</b>						
<b>SALT</b>						

## Cal Hypo Outperforms Trichlor

Only cal hypo provides higher chlorine concentration, faster disinfection capabilities and lower CYA (Cyanuric Acid) build-up potential when compared to Trichlor. Beyond the significant cost impact the choice of sanitizer makes, when it comes to water quality, there's a clearly better choice:

- » Cal Hypo disinfects more quickly while keeping CYA levels lower.
- » Cal Hypo boosts pH, alkalinity, and calcium hardness while Trichlor actually reduces pH and alkalinity.
- » Cal Hypo affects CH, trichlor increases Cyanuric Acid (CYA).
- » Cal Hypo is effectively a "3 in 1" product that chlorinates consistently, protects plaster by increasing calcium and stabilizes pH by balancing alkalinity.



Data based on Georgia (Fulton County) water and sewage costs for a 25,000 gallon pool with medium bather load.

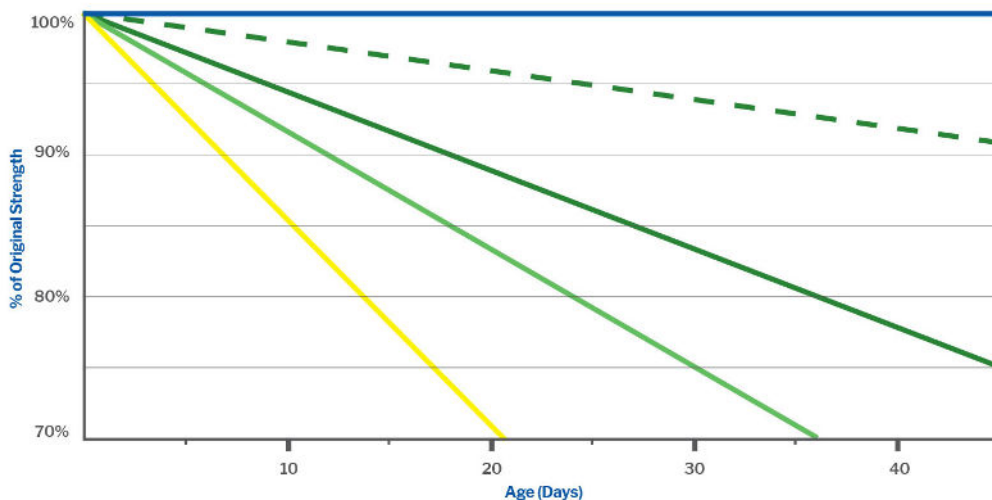
## More Concentrated than Liquid Bleach

Calcium hypochlorite (cal hypo) is a 3-in-1 product that chlorinates consistently, increases calcium to protect plaster, and balances alkalinity to stabilize pH – cal hypo is one of the most widely used chemicals for sanitizing swimming pool water and is the only commercial pool treatment sanitization method that chlorinates, removes organics and metals, boosts hardness and shock treats in one process. Additionally, liquid bleach requires more pH control to reach acceptable ranges.

### Stability Comparison

#### Pulsar® Briquettes vs Liquid Bleach at 85°F

- Calcium Hypochlorite (linear)
- 5 tr. % initial (linear)
- 10 tr. % initial (exponential)
- 12 tr. % initial (exponential)
- 15 tr. % initial (exponential)



## Cal Hypo vs Salt

Salt chlorination systems have risen in popularity over recent years, and while there are reasons to consider them in commercial pool and spa applications, there are also important drawbacks that merit a closer look.

### Cal hypo multifunctional chemistry balances the water.

While the appeal of salt systems with lower chlorination has increased in recent years, having low or no chlorine is a common operational concern that must be monitored carefully in public pools and spas.

### Cal hypo high output rates that meet high demand pool needs.

Commercial pool and spa environments require chlorination systems that can meet the demands of fluctuating bather loads. As a result, some states now require back-up chlorination options to salt systems such as cal hypo to guarantee minimum output levels at all times.

### Cal hypo has low or no capital equipment investment costs.

Salt systems are expensive to implement and use electrolytic cells to generate hypochlorine – this represents 50% of the original investment cost while also requiring replacement every 3 years. Add in the highly corrosive nature of salt systems and the damaging effect on pump rooms – which leads to greater maintenance costs in addition to the original investment.



Pulsar® Cal Hypo Briquettes