

Expert since 1928



Calcium Hypochlorite is the excellent choice

Advantages of Calcium Hypochlorite solution versus salt electrolysis and sodium hypochlorite

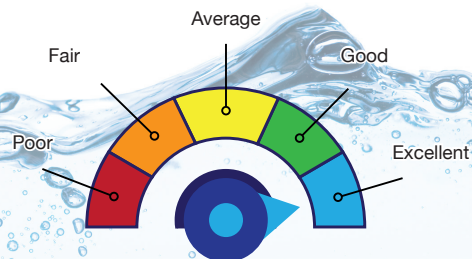


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1 - Safety and quality

a - From the operator...



Sodium Hypochlorite

Monthly Delivery / storage



- 7 times more products needed
- Typically 26 kg carboys
- Very short shelf life

Refilling



- Liquid spillages are notoriously difficult to clean up

During operation



- Sodium precipitation likely at injection points
- Accidental mixing with other liquids more likely

In case of failures



- Manual dosing possible but complicated
- Unsafe due to the nature of liquid

Calcium Hypochlorite



- The least product needed: High chlorine level already included in the product
- Easy to store with a long shelf life



- Solid chemicals are the safest to handle
- Spillages are very easy to clean up



- No injection blockages when a feeder is used
- No confusion with other chemicals



- Manual dosing possible and very easy

Salt Electrolysis



- 3 times more volume to handle, 25kg only
- Manual addition of calcium required at weekly intervals



- Heavy bags difficult to lift and maneuver when refilling



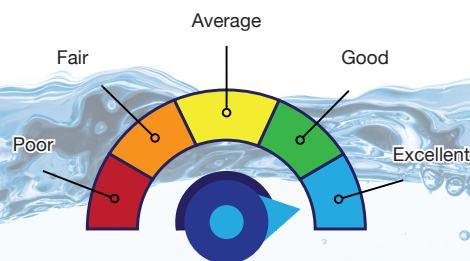
- High levels of salt precipitation at the injection points
- Very quickly used up with high fluctuations of bather



- A backup chemical is often required in case of breakdown

Across all aspects of safety and operation, Calcium Hypochlorite is the most convenient and the safest option for operators.

b - ... to the bather and the environnement



Sodium Hypochlorite

External Risk

- Danger in case of confusing liquids
- Spillages

During swimming

- Lot of salt in pool water
- Lot of chlorates added into pool water

In case of failures

- Dosing pipe always under pressure

Calcium Hypochlorite



- Easy visualisation and free **hth**® signage upon request
- Spillages easy to handle
- Less CO₂ produced per usable product than liquid or salt

- Calcium is added, good for skin; less chemicals in pool water
- Max 2% chlorine solution is produced, lower by products generated.

- Chlorine solution not under pressure when using an **easiflo**® feeder

Salt Electrolysis

- Hydrogen (H²) is expelled into the atmosphere (indirect greenhouse gas)

- High levels of salt in pool water
- Higher levels of chlorates created

- Dosing pipe under pressure

hth® Calcium Hypochlorite is the best way to improve water quality, satisfy swimmers and minimise risk to everyone.

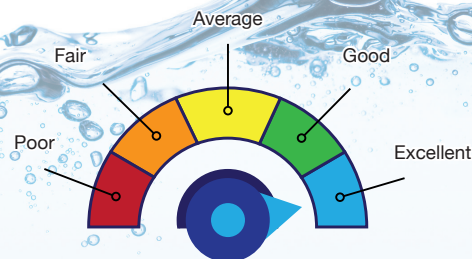
This water treatment solution limits as much as possible environmental and surroundings risks.



DID YOU KNOW?

With Calcium Hypochlorite, water changes in the middle of the season due to over-stabilisation are very limited.

2 - Costs



Investment

Sodium Hypochlorite



- High capital invest for new tank system 10k-20k

Delivery / storage



- 10-15% active chlorine, less ADR, lower transport costs
- Monthly deliveries required

During operation



- Responsible for high chlorate levels in pools, only fresh water can help
- Higher corrosion level expected
- Unstable Liquid, storage tank loses chlorine daily
- Higher alkalinity, requires much more pH correction
- No additional costs

In case of failures



- Long delivery time for dosing pumps

Calcium Hypochlorite



- Low capital invest for feeder system 2k - 5k



- 70% active chlorine, lower transport costs
- Quarterly deliveries required
- Small storage footprint



- Low chlorate levels in pools, due to perfect product quality
- Calcium based product reduces corrosion and grout loss
- Stable product - consistent quality; Retains full strength for over one year (assumes correct storage conditions)
- Mildly basic (Alkali), Requires low level of pH correction
- no additional costs



- Easy for operators to identify and repair the failure
- Cheap spare parts

Salt Electrolysis



- Capital invest 20k - 100k, large dosing pumps needed



- Huge area for storage of salt required
- Weekly pallets deliveries of salt required



- Responsible for high chlorate levels in pools, only fresh water can help
- Higher corrosion level expected: increase maintenance for replacement of valves in plant room
- Relatively unstable liquid, due to storage tank and temperature (increase) of 10°C. Maximum chlorine produced is only 1%
- Higher alkalinity, more pH minus needed
- High running costs for water, energy and maintenance



- Replacement of generators very expensive, high maintenance costs

From the initial investment, to the storage of materials, through regular maintenance, the easiflo® system is the ideal solution for long-term cost optimization.