

GUIDE to WATER treatment

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Water Treatment plan

Using what?

What to do	1 WATER BALANCE	2 SHOCK TREATMENT	3 REGULAR DISINFECTION
Why?	FOR OPTIMAL BATHING CONDITIONS	TO SANITISE THE WATER AT SPRING OPENING OR IN THE EVENT OF GREEN/CLOUDY WATER	TO ENSURE CLEAN WATER
Chlorine	<p>hth® pH MINUS hth® pH PLUS hth® ALKANAL</p> 	<p>hth® SHOCK®</p> 	<p>hth® STICK® hth® ADVANCED® hth® MAXITAB® ACTION 5® EASY hth® MAXITAB® ACTION 6 EASY</p> 
Active oxygen		<p>hth® BROME ACTIVATOR <i>Oxygen Shock</i></p> 	<p>hth® EASY'Ox® 4 in 1 hth® OXYGEN 3 in 1</p> 
Bromine			<p>hth® BROME</p> 
When?	<p>EVERY WEEK AND BEFORE EACH USE OF THE POOL AFTER CHECKING WITH A TEST KIT: CHLORINE/pH/TAC or BROMINE/OXYGEN/pH</p>		




CAUTION: • Do not mix products.

• Do not put water on the chlorine, put the chlorine in the water.

• Refer to the instructions on the label

• Ask your retailer for advice

Clean the filter and water line regularly and brush the pool walls

What to do	4 SHOCK AND CLARIFYING TREATMENT	5 FLOCCULANT CLARIFIER	WINTERISING
Why?	TO MAINTAIN CRYSTAL-CLEAR WATER	TO OPTIMISE FINE FILTERING	TO FACILITATE POOL REOPENING IN SPRING
Chlorine	hth® SUPER KLERAL® 	hth® REGULARFLOC® or hth® UNIFLOC® 	hth® SUPER WINTERPROTECT hth® FILTERWASH hth® BORKLER® GEL 
Active oxygen			
Bromine			
When?	1 OR 2 TIMES PER MONTH AS A PREVENTIVE MEASURE DEPENDING ON HOW MUCH USE THE POOL GETS AND ON WATER QUALITY		1 TIME PER YEAR WHEN THE TEMPERATURE OF THE WATER IS < 15°C

USE WATER TREATMENT CHEMICALS WITH CARE.
 BEFORE USING THE PRODUCT ALWAYS FULLY READ THE INFORMATION AND INSTRUCTIONS ON THE LABEL.



Problems & Solutions

Anomalies

Causes and problems

<p>Milky or cloudy water</p>	<ul style="list-style-type: none"> • The pH is incorrect : adjust the pH to between 7.0 and 7.4. Shock the pool. • The chlorine level is insufficient : perform shock treatment and flocculation, wash the filter several times and leave the filter in operation non-stop for 24 to 48 hours. • Insufficient filtration: increase the filter operating time. • Over-stabilisation : check the stabiliser level. (If 100 to 120 ppm: drain 2/3 of the pool; if ≥ 120 ppm : drain 3/4 of the pool). Use hth[®] STICK[®] or hth[®] ADVANCED[®] (unstabilised chlorine) as a regular treatment in order to avoid over-stabilisation.
<p>Green water</p>	<ul style="list-style-type: none"> • Formation of algae : perform shock chlorination, wash and rinse the filter, put one or several cartridges of flocculant in the skimmer (if you have a sand filter) and use a concentrated algaecide. • Over-stabilisation : check the stabiliser level. (If 100 to 120 ppm: drain 2/3 of the pool; if ≥ 120 ppm : drain 3/4 of the pool). Use hth[®] STICK[®] or hth[®] ADVANCED[®] (unstabilised chlorine) as a regular treatment in order to avoid over-stabilisation.
<p>Calcium deposits</p>	<ul style="list-style-type: none"> • Incorrect pH : adjust the pH to between 7.0 and 7.4. • Very hard water : add hth[®] STOP-CALC when filling the pool at the start of the season and every time you add fresh water.
<p>Clear green water</p>	<ul style="list-style-type: none"> • Presence of copper : check the TOTAL ALKALINITY - ideal value 80 to 120 mg/l and use a metal sequestrant. If necessary, perform liquid flocculation with the filter off for 12 hours, then vacuum any deposits and vacuum to waste.
<p>Brown / rusty / black water</p>	<ul style="list-style-type: none"> • Presence of iron or manganese : adjust the pH and use a metal sequestrant. If necessary, perform liquid flocculation with the filter off for 12 hours, then vacuum any deposits and vacuum to waste.

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Problems & Solutions

Anomalies

Causes and problems

Eye and skin irritation Chlorine smell

- The chlorine level is insufficient, chloramines are present : adjust the pH to between 7.0 and 7.4 and perform shock chlorination.
- The pH is incorrect : adjust the pH to between 7.0 and 7.4.

Difficulty maintaining the level of chlorine or Incorrect pH

- Insufficient chlorine in the event of frequent pool use : perform shock chlorination, maintain the pH between 7.0 and 7.4.

Unstable pH

- The TOTAL ALKALINITY is too high : add **hth**[®] pH MINUS and ask your retailer for advice.
- The TOTAL ALKALINITY is too low: adjust the TAC with **hth**[®] ALKANAL when the season begins, then once per month. Ideal TOTAL ALKALINITY value is 80 to 120 mg/l.

Incorrect pH

- The pH is too high : check the pH level frequently and add **hth**[®] pH MINUS.
- The pH is too low : check the pH level frequently and add **hth**[®] pH PLUS.

Abnormally high pressure on the filter pressure gauge

- The filter is dirty : wash the filter. If the pressure remains high, descale the filter with **hth**[®] FILTERWASH filter cleaner and descaler.

Take a water sample to your pool retail specialist for a full analysis and personalised advice.

Water balance

In order to get **the best from treatment products** and ensure **optimal comfort** for bathers, it is essential to regularly **check the water balance** and **clean the pool**.

Water balance mainly involves correctly adjusting the **pH** and **TOTAL ALKALINITY**:

- The **pH** defines the acid or alkaline nature of the water. It runs on a scale from 0 to 14, with pure water equal to 7. **The recommended pH value for swimming pool water is between 7.0 and 7.4.**

The pH level is too often neglected when treating pool water, but it is essential in easily avoiding a number of problems: development of algae, eye and skin irritation, cloudy water...



- The **TOTAL ALKALINITY** is the level of bicarbonates.

The measurement is expressed in mg/l and the “ideal” value is generally located between 80 and 150 mg/l.

TAC can stabilise the pH at the recommended value, which is why we say it has a “buffering capacity”. Water with the correct level of ALKALINITY will therefore have a relatively stable pH. Rainwater (acid) can contribute to reducing the TOTAL ALKALINITY.



Filtration

Sufficient filtering time and maintaining a clean filter are essential for your pool to have the right water balance.

**ALWAYS REFER
TO THE MANUFACTURER'S OPERATING INSTRUCTIONS**

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The families in the range



WATER BALANCE

Correct adjustment of the pH and TOTAL ALKALINITY is essential to avoid a number of problems: development of algae, eye and skin irritation...



UNSTABILISED CHLORINE

Calcium hypochlorite is both a disinfectant and a powerful oxidant with the advantage that it does not generate cyanuric acid that is responsible for over-stabilisation of pool water.



STABILISED CHLORINE

Disinfection must be continuous in order to avoid the proliferation of micro-organisms. A wide range covering the requirements of above-ground and inground swimming pools.



BROMINE AND ACTIVE OXYGEN

These products offer bathing comfort for the whole family.



PREVENTION / SOLUTIONS

A complete range of products to resolve problems related to water treatment and also to prevent their reoccurrence.



Any questions about treating your water?
Contact our Customer Service:

+44 (0) 1924 792909

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INSTRUCTIONS ON THE LABEL.**

Opening the pool

Temperature
< 15°C

1 CLEAN THE POOL

- Check that your equipment is in good working order (filter, pump...)
- Clean the waterline and the skimmers with **hth**® BORKLER® GEL.
- Remove dirt from the pool using the accessories by **hth**®.

2 CLEAN THE FILTER

- Descale the sand filter or cartridge filter with **hth**® FILTERWASH filter cleaner.
- Adjust the water level of the pool.

3 ANALYSE AND TREAT THE WATER

- With the CHLORINE/pH/TAC TEST KIT :
 - Check the pH and adjust if necessary with **hth**® pH PLUS to increase the level or **hth**® pH MINUS to reduce the level.
 - Check the TAC and maintain it at between 8° f and 14° f (80 to 140 mg/l). Adjust it progressively 3° f by 3° f with **hth**® ALKANAL.
- Shock the pool with 150 g of **hth**® SHOCK® for 10 m³ of water with the filter in operation for at least 24 hours. If necessary, repeat the treatment 48 hours later.

4 REGULAR MAINTENANCE

Carry out maintenance treatment every week:

- Check the pH using the Cl/pH/TAC TEST KIT
- Disinfect the water using 1 x **hth**® advanced tablet per 20 -25m³ of water.
- Add 400 ml of **hth**® SUPER KLERAL® for 20 m³ of water every fortnight.
- For crystal-clear water, put one cartridge of **hth**® REGULARFLOC® flocculant for 25 m³ into the skimmer every fortnight (for pools equipped with a sand filter).

DO NOT HESITATE TO ASK YOUR POOL RETAIL SPECIALIST FOR A FULL ANALYSIS OF YOUR WATER TO RECEIVE A PERSONALISED TREATMENT PRESCRIPTION.

USE WATER TREATMENT CHEMICALS WITH CARE.
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Closing the pool

Temperature
< 15°C

1 PREPARE THE WATER AND CLEAN THE POOL

Prepare the water 2 to 3 days before winterising:

- Brush the floor and sides of the pool, the skimmer basket and the pre-filter of the pump
- Measure the pH with a pH test kit and adjust it to between 7.0 and 7.4.
- Shock the pool with **hth**[®] SHOCK, with the filtration in operation non-stop for 24 hours.
- Use the vacuum cleaner with the filter in “drain” position.
- Clean the water line with **hth**[®] BORKLER[®] GEL.

2 DESCALE

- Descale the sand filter or cartridge filter with **hth**[®] FILTERWASH.

3 WINTERISE

- Drain the pipes and lower the water level to below the discharge nozzles.
- Pour 1 litre of **hth**[®] SUPER WINTERPROTECT for 35 m³ around the periphery of the pool. This is a product with long-lasting effect designed to prevent the build-up of deposits that will be difficult to remove in the spring and to combat the proliferation of algae (this is not an anti-freeze product).

4 PROTECT THE POOL

- Secure a line of floating containers diagonally across the pool.

Pool size	7 x 3	8 x 4	10 x 5	12 x 6
Number of containers	16	20	24	28

- Place a weighted container in each skimmer and one rubber plug per pool inlet and / or vacuum point..
- Switch off electrical supply and winterise your pool heater as per manufactures instructions.

5 INSTALL A WINTER COVER

The cover protects against leaves and other forms of pollution and reinforces protection against algae by putting the pool into darkness.



PRACTICAL ADVICE

- Only winterise your pool if the water temperature is below 15°C.
- A thorough winterisation program will help make the the spring opening of the pool much easier and faster.

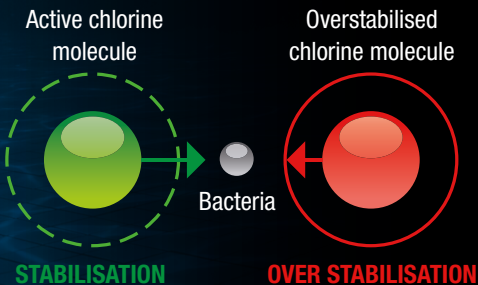
What is **over-stabilisation** ?



! IN THE MIDDLE OF SUMMER WHEN EVERYTHING IS GOING WELL, THE POOL WATER TURNS GREEN AND MILKY... THERE IS NO DOUBT ABOUT IT: THE SCOURGE OF OVER-STABILISATION STRIKES AGAIN!

The **STABILISER** (cyanuric acid) contained in traditional chlorine tablets **PROTECTS THE CHLORINE AGAINST DESTRUCTION FROM UV RAYS** from the sun. But while the chlorine is consumed over time, **THE STABILISER BUILDS UP IN THE WATER**. The excess stabiliser ends up **REDUCES THE DISINFECTANT ACTION OF THE CHLORINE**,... the water is no longer disinfected, turns green and “goes bad”...

This phenomenon is over-stabilisation!



THE LEVEL OF STABILISER SHOULD BE BETWEEN 30 and 50 ppm and NEVER EXCEED 80 ppm.

Red range: Unstabilised chlorine only!

To combat over-stabilisation,
it is best to use unstabilised chlorine!

Unstabilised chlorine does not produce stabiliser in the water.

To protect it from the action of the sun's UV rays,
you need to add stabiliser separately in relation to your needs
(generally at the start of the season).



- For regular disinfection:
hth® STICK® and **hth**® ADVANCED®
- To clean up green or cloudy water:
hth® SHOCK®
- To raise the level of chlorine rapidly:
hth® SHOCK®
- To protect unstabilised chlorine from UVs :
hth® STABILIZER



All of this information can be found on

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How to **calculate**
the **volume** of your pool?

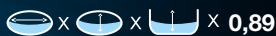
Rectangular



Round



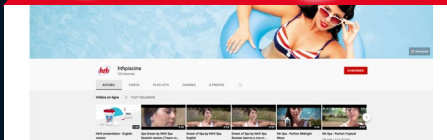
Oval



Freeform



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