

- B** Balance your pool water for bather comfort and maximum chemical efficiency
- O** Oxidise to establish a sanitiser level then weekly to destroy waste compounds
- A** Algae prevention, stop algae establishing themselves in your pool water
- S** Sanitise, maintain a constant sanitiser level to prevent and kill bacteria
- T** Test your water frequently, you really don't know what the levels are without testing

Technical Support

This guide is quite comprehensive but if you require any further technical support, please contact us on number below.
Your Blue Horizons Supplier:



Swimming pool photographs courtesy of Asher Swimpool Centre Ltd.



bluehorizons

Complete Pool Controls Ltd
Unit 2, The Park, Stoke Orchard, Bishops Cleeve,
Gloucestershire. GL52 7RS

Technical Helpline: 0871 222 9084

(Calls charged at £0.50 per minute from most land lines. Call charges from mobiles may vary).

Pool Care Guide

Pool Treatment Chemicals

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Introducing the BOAST System - pool water care made easy

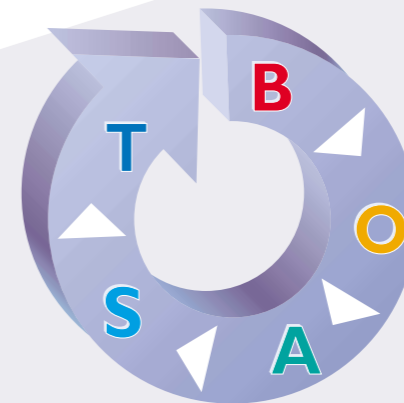
Welcome to the world of pool ownership and thank you for choosing Blue Horizons as your water treatment products. Learning and understanding how your pool works will help you achieve water that looks inviting and is clean and comfortable for you, your family and your friends to enjoy.

In this guide we will inform you about pool maintenance and water treatment using chlorine or bromine based sanitisers (disinfectants) and explain the importance of establishing and maintaining the correct chemical levels. We will also look at the role of filtration in keeping your pool water clear, bright and attractive. It is not our intention to baffle you with complicated formulas or to use jargon but to introduce you to our simple BOAST system of continuous pool water care that will enable you to run your pool economically and successfully. Rest assured that by using our BOAST programme, you will have pool water to boast about throughout the swimming season.

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Separately ask for a Blue Horizons maintenance chart where you can fill in the details of your pool, this information will prove invaluable when it comes to dosing pool products, cleaning or changing filter media or talking to your pool product supplier.

At the back of the guide there is a section on pool and chemical safety, please read this thoroughly before you begin using or treating your pool, and always read and follow the instructions that are printed on the chemical containers before application.



Understanding your pool

How to calculate your pool volume

Rectangle Pool:

Cubic Metres (M³) – Length in Metres x Width in Metres x Average Water Depth in Metres

Example 9.0 Metres x 4.5 Metres x 1.5 Metres = 60.75M³

Gallons - Length in Feet x Width in Feet x Average Water Depth in Feet x 6.25

Example 30' x 15' x 5' x 6.25 = 14,063 Gallons

Round Pool:

Cubic Metres (M³) - Diameter in Metres x Diameter in Metres x Average Water Depth in Metres x 0.8

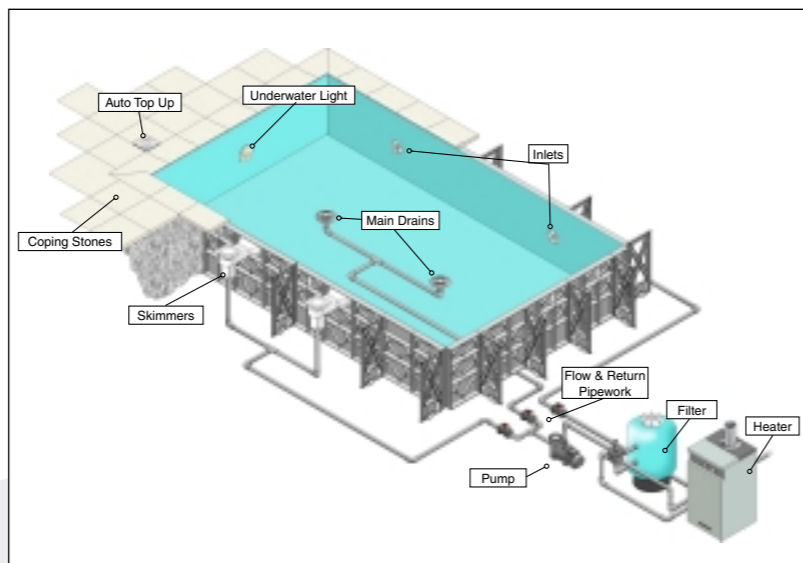
Example 4.5 Metres x 4.5 Metres x 1.0 x 0.8 = 16.2 M³

Gallons - Diameter in Feet x Diameter in Feet x Average Water Depth in Feet x 4.9

Example 15' x 15' x 3'6" x 4.9 = 3,859 Gallons

Useful Information

To convert	Into	Multiply By
Inches	Millimetres	25.4
Feet	Metres	0.30480
Metres	Feet	3.2808
Square Feet	Square Metres	0.0929
Square Metres	Square Feet	10.764
Ounces	Grams	28.3495
Grams	Ounces	0.03527
Pounds	Kilograms	0.45359
Kilograms	Pounds	2.20462



Circulation & Filtration

Assuming that your pool is now full of water and you are ready to begin preparing it for use, the first thing to consider is the circulation system. When your pump is running it draws water from the pool via the suction fittings such as the main drain(s) and skimmer(s), see Understanding your Pool on page 2, and pushes it through your filter, heater and chemical feeder before it is returned to the pool via the inlets. As water flows through the filter, particles that are suspended in it are captured and retained within the filter media – this removal of particles is essential and is how your water clarity is achieved and maintained. As the water is only filtered when it is being circulated, we would recommend that you run the pump for a minimum of eight hours per day, and for best results 24-hours a day during the swimming season.

There are generally three types of filter used for swimming pools – cartridge, sand and diatomaceous earth (D.E.), although D.E. is not commonly used these days. Cartridge filters are normally found, although not exclusively, on smaller above ground pools while in-ground pools usually have sand filters.

Cartridge Filters

Inside the cartridge filter you will find a cartridge element that the pool water flows through. As the water passes through the element the particles and debris are removed and collected within the folds of the cartridge. As the collected matter builds up, so the water flow

through the element diminishes to such an extent that it becomes time to clean it. This is straightforward, turn off the pump, remove the element from its housing, hose thoroughly with a garden hose, don't use a pressure washer as it will cause damage to the element, then soak overnight in a solution of Blue Horizons Filter Cleaner or AquaSParkle Cartridge Cleaner or Aqua Sachets Immerse.

Sand Filters



The advantage of sand filters is that you don't have to remove and clean cartridge elements making it easier and less time consuming to maintain your filtration system. In place of the cartridge element the filter tank contains specially graded silica sand and as the water flows through it particles are trapped and retained, thus creating clear water. As more and more particles are retained so the flow of water through the filter slows down and the pressure within the tank increases, you will notice this on the pressure gauge, which is usually on the multiport selector valve or the top of the filter tank. To remove the particles trapped in the sand you need to backwash the filter, typically weekly or more frequently if the pressure gauge indicates a need to.

When you backwash a sand filter the flow of water through the filter is reversed, (rather than the pool water entering the top of the filter and percolating down through the filter sand before going back to the pool), the water comes into

the filter through the bottom rises up through the sand, dislodging debris on the top. The backwash water goes to waste, and not back into the pool.

The backwash procedure is straightforward, firstly make sure there is sufficient water in the pool – the level should be about halfway up the skimmer opening, then turn off the pump, if there is a valve on your waste line make sure this is open, turn the multiport selector valve to the backwash position and turn the pump back on. On the multiport selector valve there will probably be a sight glass, you will see that initially the water in the sight glass is dirty and /or cloudy, once the water in the sight glass is clear, about 2 – 3 minutes, you can stop the backwash by turning off the pump. After the backwash turn the multiport selector valve to rinse and turn the pump on again, wait until the water in the sight glass is clear again, 20 – 30 seconds normally, turn the pump off. If you opened a valve on the waste line you should now close it. Turn the multiport selector valve to filtration and turn the pump back on - the backwash procedure is now complete.

Although backwashing the filter removes debris caught in the filter sand it doesn't actually clean the sand, so to maintain the filters efficiency it should annually be chemically cleaned using Blue Horizons Filter Cleaner as per directions printed on the product label.



Balance your pool water

Establishing and keeping the correct water balance is important for a number of reasons:

- Chemical efficiency
- Bather comfort
- Protection of pool and plant room equipment
- Water quality and appearance
- Makes it easier and less time consuming to look after the pool

Some people believe that keeping the right pH is all that is needed to achieve the correct water balance, this isn't the case and although pH is important there are other factors that also need to be considered. In the table below we have illustrated the properties that make up water balance and the ideal levels that should be maintained.

Ideal Pool Water Levels

Calcium Hardness	Total Alkalinity	pH	Total Dissolved Solids
200 – 275mg/l	80 – 150mg/l	7.2 – 7.6	Less than 1,500mg/l



Calcium Hardness

Calcium hardness (or total hardness) is the measure of how hard or soft the water is. The level will vary depending on where your water supply comes from, for example in some parts of Scotland the water is very soft and in parts of Kent the water can be very hard. The hardness depends upon the amount of mineral salts (mainly calcium) that are dissolved in the water and the more salts there are the harder the water is.

Problems Associated with Incorrect Calcium Hardness Levels

Low calcium hardness Less than 200mg/l	High calcium hardness More than 275mg/l
<ul style="list-style-type: none"> • Corrosive water • Etching of surfaces • Staining • Foam 	<ul style="list-style-type: none"> • Scale formation • Filter calcification • Cloudy water • Lower sanitiser effectiveness

If the calcium hardness of your pool water is less than 200mg/l then it should be increased using Blue Horizons Calcium Hardness Raiser, details of dose rates can be found below:

Blue Horizons Calcium Hardness Raiser Dose Rates Table

Pool Volume			To Increase Calcium Hardness by		
Cubic Metres	Litres	Gallons	10mg/l	25mg/l	50mg/l
4.55 M ³	4,545	1,000	68g	170g	340g
11.36 M ³	11,364	2,500	170g	425g	850g
22.73 M ³	22,727	5,000	340g	850g	1.70Kg
45.45 M ³	45,455	10,000	680g	1.70Kg	3.40Kg

Balance your pool water

If the calcium hardness of your pool water is greater than 275mg/l then Blue Horizons Stain and Scale Inhibitor should be used. Stain and Scale Inhibitor works by helping the pool water keep the minerals in solution thus preventing them from precipitating out and causing scale deposits (which are then more easily removed by the filter). Dosages below:

Blue Horizons Stain & Scale Dose Rates Table

Pool Volume			Dose Rates	
Cubic Metres	Litres	Gallons	Initial	Monthly
4.55 M ³	4,545	1,000	100ml	50ml
11.36 M ³	11,364	2,500	250ml	125ml
22.73 M ³	22,727	5,000	500ml	250ml
45.45 M ³	45,455	10,000	1.00Ltr	500ml



Total Alkalinity

Total alkalinity is a measurement of the water's ability to resist pH change. If the total alkalinity is low then the pH can fluctuate making it difficult to control and maintain at the ideal level. If the total alkalinity is high then the pH can be difficult to change and will keep rising. A high total alkalinity can also lead to the formation of a bicarbonate scale on pool surfaces, within pipework and in plant room equipment.

If the total alkalinity of your pool water is below 80mg/l it should be increased using Blue Horizons TA Raiser, the table below indicates the dosage quantities required:

Blue Horizons TA Raiser Dose Rates Table

Pool Volume			To Increase Total Alkalinity by		
Cubic Metres	Litres	Gallons	10mg/l	25mg/l	50mg/l
4.55 M ³	4,545	1,000	81g	203g	405g
11.36 M ³	11,364	2,500	203g	508g	1.01Kg
22.73 M ³	22,727	5,000	405g	1.01Kg	2.02Kg
45.45 M ³	45,455	10,000	810g	2.02Kg	4.05Kg

If the total alkalinity of your pool water is above 150mg/l then Blue Horizons TA Reducer can be used to lower it. This liquid product needs no prep-dissolving and is therefore easier to apply.

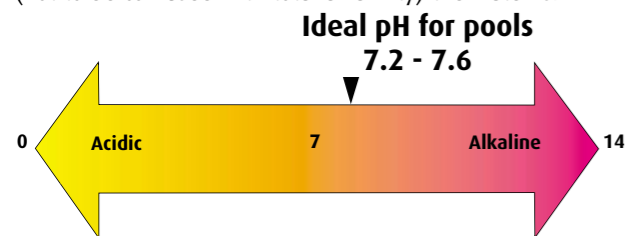
Blue Horizons TA Reducer Dose Rates Table

Pool Volume			To Reduce Total Alkalinity by		
Cubic Metres	Litres	Gallons	10mg/l	25mg/l	50mg/l
4.55 M ³	4,545	1,000	100ml	250ml	500ml
11.36 M ³	11,364	2,500	250ml	625ml	1.25Ltr
22.73 M ³	22,727	5,000	500ml	1.25Ltr	2.50Ltr
45.45 M ³	45,455	10,000	1.00Ltr	2.50Ltr	5.00Ltr

Balance your pool water

pH

pH is a measure of how acidic or how alkaline (not to be confused with total alkalinity) the water is.



As you can see from the above diagram the pH scale is 0 to 14, with 0 being very acidic and 14 very alkaline. pH 7 is neutral and for pools the pH should be maintained between 7.2 and 7.6, this being slightly alkaline protects the pool and plant room equipment from aggressive, corrosive water and is comfortable for bathers.

Problems Associated with Incorrect pH Levels

pH below 7.2	pH above 7.6
<ul style="list-style-type: none"> • Corrosive water • Etching of surfaces • Staining • Skin & eye irritation • Damage to plant room equipment 	<ul style="list-style-type: none"> • Scale formation • Filter calcification • Cloudy water • Drying to Skin • Reduced effectiveness of chlorine

If the pH of your pool water is either low or high it should be corrected using Blue Horizons pH Plus or Blue Horizons pH Minus, respectively. The following table will help you calculate the dose rate to suit your pool:

Blue Horizons pH Plus & pH Minus Dose Rates Table

Pool Volume			pH Plus (to increase pH)		pH Minus (to lower pH)	
Cubic Metres	Litres	Gallons	Dose Rate	Dose Rate	Dose Rate	Dose Rate
4.55 M ³	4,545	1,000	50g	Re-check pH	50g	Re-check pH
11.36 M ³	11,364	2,500	125g	after 24 hours	125g	after 24 hours
22.73 M ³	22,727	5,000	250g	& repeat dose	250g	& repeat dose
45.45 M ³	45,455	10,000	500g	If required	500g	If required

Total Dissolved Solids (T.D.S.)

T.D.S. is, as the name suggests, the sum of everything that is dissolved in the water including, minerals, chemicals and debris. The maximum recommended T.D.S. level is 1,500mg/l, when the level rises above this it is time to do some dilution, by removing some of the old pool water and adding some fresh.

High T.D.S. levels can cause poor chemical efficiency and increase consumption together with dull looking water that may taste salty.

Regular backwashing of the filter as mentioned on page 3 will mean that your pool will need topping up with fresh water fairly often, this will help keep the T.D.S. level under control and reduce the need to drain down and refill.

Balance your pool water

Chlorine Stabiliser

Although stabilising chlorine loss to sunlight isn't one of the properties that make up water balance, we feel this is the best place to talk about it because while you are getting your pool water balanced and ready for use, now is a good time to add chlorine stabiliser if it is required.

One of the major reasons for chlorine loss from swimming pools is that it is drawn out of the pool by the UV rays of the sun. Adding chlorine stabiliser to an outdoor pool at the start of the swimming season will substantially reduce the amount of chlorine lost to sunlight, saving you money.

Many of the chlorine donors used to treat the pool water already contain stabiliser, we would therefore recommend that you get the level tested by your Blue Horizons supplier before adding any more. The ideal

chlorine stabiliser level is 60mg/l, if the level in your pool is less than this use Blue Horizons Chlorine Stabiliser tablets or granules to increase it.

If the chlorine stabiliser level is greater than 200mg/l it is time to drain some of the existing pool water out of the pool and top it up with some fresh water to lower the level. As with T.D.S. levels, frequent top ups with fresh water due to regular backwashing will help to keep the chlorine stabiliser level from rising too high.

Remember that water balance can change with dilution of the pool by rainwater, the introduction of fresh water to top the pool up, the chemicals used to oxidise and sanitise and by the bathers using the pool – so keep checking the levels throughout the swimming season.

Blue Horizons Chlorine Stabiliser Dose Rates Table

Pool Volume			Chlorine Stabiliser Tablets To Increase Level by		Chlorine Stabiliser Granules To Increase Level by		
Cubic Metres	Litres	Gallons	10mg/l	30mg/l	10mg/l	25mg/l	60mg/l
4.55 M ³	4,545	1,000	N/A	N/A	45g	113g	271g
11.36 M ³	11,364	2,500	N/A	2 tablets	113g	283g	678g
22.73 M ³	22,727	5,000	1 tablet	3 tablets	225g	563g	1.36kg
45.45 M ³	45,455	10,000	2 tablets	7 tablets	450g	1.12kg	2.71kg



Balance your pool water

Summary of Blue Horizons Water Balance Chemicals

Product Description	Pack Sizes	Used to
Blue Horizons Calcium Hardness Raiser	5.0, 25.0Kg	Increase calcium hardness of pool water when it drops below 200mg/l
Blue Horizons Stain & Scale Inhibitor	1.0Ltr	Prevent metal stains and scale deposits
Blue Horizons TA Raiser	5.0, 25.0Kg	Increase total alkalinity of pool water when it drops below 80mg/l
Blue Horizons TA Reducer	5.0Ltr	Lower total alkalinity of pool water when it rises above 150mg/l
Blue Horizons pH Plus	1.0, 5.0, 25Kg	Increase pH of pool water when it drops below 7.2
Blue Horizons pH Minus	1.5, 7.0, 25Kg	Lower pH of pool water when it rises above 7.6
Blue Horizons Chlorine Stabiliser	2.0Kg	Prevent chlorine loss to sunlight
Blue Horizons Chlorine Stabiliser Tablets	2.0Kg	Prevent chlorine loss to sunlight



Oxidise your pool water

Swimmers, young children and rain all introduce waste products into your pool water. As these waste compounds build up they become a source of food for bacteria and algae encouraging their growth and making your pool water unhealthy and cloudy. Organic wastes will react with chlorine creating chloramines (combined chlorine) that has an unpleasant pungent odour and is irritating to eyes and nose. Oxidising or shock dosing destroys chloramines and organic wastes helping to keep your pool comfortable for bathers.

Chlorine Demand

Chlorine demand is at the route of many pool water problems and could be described as the amount of chlorine necessary to destroy bacteria, algae and other organic wastes. The only way to overcome chlorine demand is to keep shocking the pool until its 'hunger' for chlorine is satisfied, this is straight forward to do but can take a few days depending what the level of demand is. Shock dose the pool using sufficient Blue Horizons Granular Shock or Shock 'n' Floc Granules to increase the chlorine level by 10mg/l, after 24 hours check the chlorine level using your test kit if the chlorine level is 5mg/l or lower then it is likely that the chlorine demand has not yet been satisfied, so repeat the shock dose. Keep repeating this process until after 24 hours the chlorine remains above



Blue Horizons Granular Shock & Shock 'n' Floc Dose Rates Table

Pool Volume			Granular Shock To Increase Level by			Shock 'n' Floc To Increase Level by		
Cubic Metres	Litres	Gallons	1mg/l	5mg/l	10mg/l	1mg/l	5mg/l	10mg/l
4.55 M ³	4,545	1,000	7g	35g	70g	10g	50g	100g
11.36 M ³	11,364	2,500	18g	88g	175g	24g	120g	240g
22.73 M ³	22,727	5,000	35g	175g	350g	48g	240g	480g
45.45 M ³	45,455	10,000	70g	350g	700g	97g	480g	960g

5mg/l. Then wait for another 24 hours and check the chlorine level again, if it is still around the 5mg/l level then you have probably satisfied the waters 'hunger' for chlorine and satisfied the demand.

TIP OFF - As soon as possible after a thunderstorm shock dose your pool with a 5mg/l dose of Blue Horizons Granular Shock Granules or Shock 'n' Floc Granules. The reason for this is that lightning creates nitrogen in the atmosphere and the rain washes this nitrogen into your pool. Nitrogen is plant food and algae thrive on it, so pool water can quickly turn green after a thunderstorm, a shock dose of chlorine can help prevent this.

Blue Horizons Granular Shock

A traditional shock treatment product, these calcium hypochlorite granules have an available chlorine level of approximately 65% making them a good chlorine donor for pool water problem solving.

Blue Horizons Shock 'n' Floc

A new generation calcium hypochlorite granule, Shock 'n' Floc is not only an efficient and effective way of quickly increasing the chlorine level in pool water but also helps the filter remove small particles quickly thus helping to clear an algae infested pool more quickly.

Oxidise your pool water

Regular Oxidation

Regularly oxidising pool water, ideally weekly, will pay dividends in the prevention of pool water problems. Within the Blue Horizons range there is a selection of products that are ideal for the regular oxidation of pool water.

Blue Horizons AquaSachet Pool Fusion

The ultimate product for regular oxidation, Pool Fusion is a blended product that not only destroys organic wastes and eliminates chloramines but also clarifies the water to help achieve sparkling pool water that looks great and is comfortable for bathers. Supplied in prep-measured sachets, Pool Fusion is the easiest oxidiser to apply as you simply cut the corner of the sachet with scissors and broadcast the contents over the water surface, no prep-dissolving is required. One 350g sachet is sufficient to treat pools up to 45.45M³ (10,000 gallons).

Blue Horizons Non-Chlorine Shock

A granular product that is ideal for the regular oxidation of pool water as it will destroy organic waste and chloramines without increasing the chlorine level, meaning that you will be able to swim shortly after application.

Blue Horizons Non-Chlorine Shock Dose Rates Table

Pool Volume			Weekly
Cubic Metres	Litres	Gallons	Dose Rate
4.55 M ³	4,545	1,000	50g
11.36 M ³	11,364	2,500	125g
22.73 M ³	22,727	5,000	250g
45.45 M ³	45,455	10,000	500g

Summary of Blue Horizons Oxidising (Shock) Treatments

Product Description	Pack Sizes	Used to
Blue Horizons Granular Shock	2.0Kg 5.0Kg	Satisfy chlorine demand and solve pool water problems. Can also be used for regular oxidation
Blue Horizons Shock 'n' Floc	2.5Kg	Satisfy chlorine demand and solve pool water problems. Can also be used for regular oxidation
Blue Horizons Pool Fusion	350g	Regularly oxidise pool water to help prevent pool water problems
Blue Horizons Non-Chlorine Shock	1.0Kg	Regularly oxidise pool water to help prevent pool water problems



Algae Prevention in your pool water

Algae are microscopic plant life that, in the right conditions, multiply rapidly usually turning pool water green and opaque. Because algae are so small they do not become visible to the human eye until there are millions of them, so the early stages of an algae attack can easily go undetected and therefore untreated. Recovering an algae infested pool can be time consuming and expensive, which is why algae prevention is always preferable to cure.

The secret to keeping your pool algae free is to maintain the correct water balance, oxidise regularly to destroy sources of algae food and organic wastes, apply algaecide to support the sanitiser (chlorine or bromine), continuously keep a consistent sanitiser level in the water and test regularly to ensure that the correct levels are being maintained, hence our innovative **BOAST** pool care system.

The Blue Horizons algaecides have been specially formulated to support your efforts of keeping algae out of the pool. There is a choice of regularly dosed and longlife algaecides, in our opinion the use of both is the most effective way to prevent algae growth.

Kleen Pool Algaecide or (non copper) Summerclear

Longlife algaecide that is usually added to the pool shortly after spring commissioning. A choice is available of a copper based Kleen Pool or non copper based Summerclear, which will last for up to 3 months (Kleen Pool 1Ltr treats up to 5000 gallons and Summerclear 1Ltr treats 6,250 gallons). Kleen Pool is a copper based product that will remain in the water for up to six months, and so acts as a great backstop in case you forget to add an algaecide or go away on holiday and are unable to dose the pool. The disadvantage of this type of algaecide is that it lasts up to six months, but you only know when it has stopped being effective because an algae growth appeared in the pool. The use of Kleen Pool and a regularly applied algaecide is a great 'belt and braces' approach to preventing algae.

Kleen Pool can also be used at the end of the outdoor swimming season to close/winterise the pool, see page 20.

Blue Horizons Algae Controller

Dosed into the pool weekly, this non copper based algaecide does not have a long life, which is why it should be dosed weekly. When used as directed, Algae controller will prevent a broad spectrum of algae inhabiting your pool.

Blue Horizons Algae Controller Dose Rates Table

Pool Volume			Algae Prevention Dose Rates	
Cubic Metres	Litres	Gallons	Initial	Weekly
4.55 M ³	4,545	1,000	50ml	25ml
11.36 M ³	11,364	2,500	125ml	63ml
22.73 M ³	22,727	5,000	250ml	125ml
45.45 M ³	45,455	10,000	500ml	250ml

Blue Horizons AlgiMAX Eliminator

A powerful dual action polyquat and copper complex algaecide, formulated specifically to eliminate algae should it ever establish itself in your pool water. AlgiMAX is effective against green, black and mustard forms of algae.

Blue Horizons AlgiMAX Eliminator Dose Rates Table

Pool Volume			Algae Destruction
Cubic Metres	Litres	Gallons	Dose Rate
4.55 M ³	4,545	1,000	100ml
11.36 M ³	11,364	2,500	250ml
22.73 M ³	22,727	5,000	500ml
45.45 M ³	45,455	10,000	1.00Ltr

Algae Prevention in your pool water

Blue Horizons Ultimate Algicide Concentrate

A dual use algicide that can be used to both prevent and cure algae problems. Its concentrated formula means that a little goes a long way, making it economical to use.

Blue Horizons Ultimate Algicide Concentrate Dose

Pool Volume			Algae Prevention Dose Rates		Algae Destruction
Cubic Metres	Litres	Gallons	Initial	Weekly	Dose Rate
4.55 M ³	4,545	1,000	33ml	8ml	66ml
11.36 M ³	11,364	2,500	83ml	20ml	165ml
22.73 M ³	22,727	5,000	165ml	40ml	330ml
45.45 M ³	45,455	10,000	330ml	80ml	660ml

Recovering an Algae Infested Pool

If you are unfortunate enough to suffer from an algae attack then this recovery routine should help when you have a conventional filter.

1. Check the pH, it is not unusual for algae infested pools to have a high pH level – if this is the case lower the pH as chlorine does not work as effectively at high pH levels, see chart on page 6.
2. Vacuum pool floor with the multiport valve in the waste position, this may be difficult as you might not be able to see the vacuum head but try and do it systematically remembering to keep an eye on the water level, as by vacuuming to waste the water level in the pool is going to drop – so you will need to work quite quickly.
3. After vacuuming put the multiport valve in the usual filtration position and keep the pump running 24 hours per day until the pool has cleared.
4. Check the sanitiser level, if it is zero it is quite likely that the water will have a chlorine demand, which may take a few days to satisfy - see Chlorine Demand on page 9.

It is unlikely that you will get rid of the algae infestation until the chlorine demand is satisfied.

5. Apply Blue Horizons AlgiMAX Eliminator or Ultimate Algicide Concentrate as indicated on the product label. This will support the sanitiser and act as another algae killing product to help speed up the pool recovery time.
6. Thoroughly brush the pool floor and walls, again this might be difficult as you may not be able to see the end of the brush but it is important to disturb the algae and get it into suspension rather than sat on the floor or clinging to the walls.
7. Apply one of the Blue Horizons clarifiers to assist the filter in the removal of small particles, see page 18/19.

Blue Horizons Winter Time

A longlife copper-free algicide formulated to prevent algae growth during the late autumn, winter and early spring in outdoor swimming pools. One dose will help prevent algae growth for up to six months. Winter Time contains sequestrants to minimise the likelihood of stains and scale deposits during the closed season.

Summary of Blue Horizons Algaecides and Kleenpool

Product Description	Pack Sizes	Longlife	Algae Prevention	Algae Destruction
Kleen Pool	1.0 Ltr	✓	✓	
Blue Horizons Summerclear	2.0 Ltr	✓	✓	
Blue Horizons Algae-controller	1.0 Ltr 2.0 Ltr		✓	
Blue Horizons AlgiMAX Eliminator	2.0 Ltr	✓	✓	✓
Blue Horizons Ultimate Algicide Concentrate	500ml 1.0 Ltr		✓	✓
Blue Horizons Winter Time	5.0 Ltr		✓	✓

Sanitise your pool water

The sanitise part of the **BOAST** programme is all about making sure that your pool water is healthy by preventing and killing bacteria. This is achieved by continuously and consistently maintaining a level of sanitiser (disinfectant) in the water with either chlorine or bromine.

Chlorine

Chlorine is the most commonly used chemical to achieve satisfactory bacteriological and chemical purity in swimming pools. It must be present in the 'free' form to kill bacteria and oxidise organic matter derived from bathers. Provided the water is balanced, see pages 4 - 8, chlorine levels of between 1.0 to 3.0mg/l are sufficient to maintain healthy, clean water. A well managed chlorine treated pool will have no odour and levels of chloramines (combined chlorine) of less than 0.5mg/l.

Combined chlorine is created as a result of a reaction between free chlorine and organic matter and is a mixture of Monochloramine, Dichloramine and Nitrogen Trichloride. The latter is mostly produced when the water is not being treated adequately and gives rise to the 'chlorine' odour.

Blue Horizons have made it easy for you to maintain your sanitiser level by giving you an extensive choice of products to suit your pool situation, preferred dosing method and budget.

Blue Horizons Stabilised Chlorine Granules

A traditional, granular chlorine donor that is still popular with many pool owners that like dose rate flexibility. These granules are rapid dissolving making prep-dissolving and application easy. The granules have a pH value of about 6.0 – 7.0, which is fairly close to the ideal pool water pH level and so will have little effect on the pH level of your pool water. Another feature of Stabilised Chlorine Granules is that they contain Cyanuric acid (chlorine stabiliser), this can be beneficial for outdoor pools as it reduces the amount of chlorine lost to sunlight – making it easier for you to maintain the correct chlorine level in your pool.

Blue Horizons Ultimate Stabilised Chlorine Granules

A new and improved version of the above, these granules still offer the dose rate flexibility, fairly neutral pH value and chlorine stabilisation but also now include clarifiers and extra oxidisers to help improve water quality and clarity.

Blue Horizons Stabilised Chlorine Granules & Ultimate Stabilised Chlorine Granules Dose Rates Table

Pool Volume			Stabilised Chlorine Granules To Increase Level by			Ultimate Stabilised Chlorine Granules To Increase Level by		
Cubic Metres	Litres	Gallons	1mg/l	2mg/l	3mg/l	1mg/l	2mg/l	3mg/l
4.55 M ³	4,545	1,000	8g	16g	24g	10g	20g	30g
11.36 M ³	11,364	2,500	21g	42g	63g	25g	49g	74g
22.73 M ³	22,727	5,000	41g	82g	123g	49g	99g	148g
45.45 M ³	45,455	10,000	83g	166g	249g	99g	197g	296g

Sanitise your pool water

Blue Horizons Small Chlorine Tablets

Small Chlorine Tablets offer a convenient way of maintaining chlorine levels in pool water. They should be dosed via a chemical feeder (trichlorinator), floating dispenser or skimmer. As the tablets are small it is easy to vary the number of tablets to maintain the free chlorine level of 1.0 to 3.0mg/l. They have a high level of available chlorine and contain chlorine stabiliser.

Blue Horizons Multifunctional Mini 20g Chlorine Tablets

A new and improved version of the above, these tablets still offer an easier way of maintaining chlorine levels and are applied via a chlorine feeder (trichlorinator) or floating dispenser. They have a higher pH value, which reduces the amount of pH regulation you need to do, and as well as being stabilised to reduce chlorine loss to sunlight they also contain clarifier and algaecides to help improve clarity and prevent algae formation.

Blue Horizons 200g Chlorine Tablets

An easier way of maintaining chlorine levels in your pool water, 200g Chlorine Tablets are placed in the skimmer, floating dispenser or chlorine feeder (trichlorinator). When dosed via the skimmer the tablet(s) will dissolve slowly over a 3 to 4 day period, the rate at which they dissolve will vary depending upon water flow and temperature. They have a high level of available chlorine and contain chlorine stabiliser.

Blue Horizons Multifunctional 200g Chlorine Tablets

A new and improved version of the above, these tablets still offer an easier way of maintaining chlorine levels and are applied via the skimmer, floating dispenser or chlorine feeder (trichlorinator). They have a higher pH value, which reduces the amount of pH regulation you need to do and as well as being stabilised to reduce chlorine loss to sunlight they also contain clarifier and algaecides to help improve clarity and prevent algae formation.

Blue Horizons Multifunctional Floating Chlorine Dispenser

The Multifunctional Floating Chlorine Dispenser is prep-filled with multifunctional chlorine tablets, which will dissolve slowly over a 2 to 5 week period making this product ideal to use whilst you are away on holiday and during the winter when the pool is not in use. The tablets within the feeder have a high level of available chlorine, contain chlorine stabiliser and clarifier. The Multifunctional Floating Chlorine Dispenser is available in two sizes, 900g or 1.6Kg, so there's one to suit most pool sizes.

Blue Horizons Multifunction block / Holiday Pill

This 600g tablet is truly multifunctional, and will last up to 14-days making it ideal for use when you go away on holiday. The Multifunctionblock also contains clarifiers, to help to create crystal clear pool water.

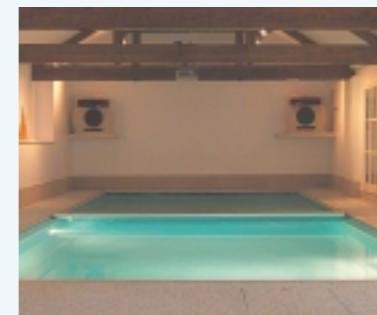


Sanitise your pool water

Chlorine Sanitiser Selection Chart

Product Description	Hand Dosed	Feeder or skimmer	Approx. Dose Frequency (based on skimmer application for chlorine tablets)	pH	Stabilised	Clarifiers	Oxidisers	Algaecides
Stabilised Chlorine Granules	✓		1 or 2 days	6.0 – 7.0	✓			
Multifunctional Stabilised Chlorine Granules	✓		1 or 2 days	6.0 – 7.0	✓	✓	✓	
Small Chlorine Tablet		✓	2 – 3 days	2.5 – 3.5	✓			
Multifunctional Mini 20g Chlorine Tablets		✓	2 – 3 days	3.5 – 4.5	✓	✓		✓
200g Chlorine Tablets		✓	3 – 4 days	2.5 – 3.5	✓			
Multifunctional 200g Chlorine Tablets		✓	3 – 4 days	3.5 – 4.5	✓	✓		✓
Multifunctional Floating Chlorine Dispenser			2 – 5 weeks	3.5 – 4.5	✓	✓		
Multifunction block		✓	14 days	3.5 – 4.5	✓	✓		

TIP-OFF - All the chlorine Tablets and the Multifunctional Floating Chlorine Dispenser are designed to maintain chlorine levels, so before they are used you must satisfy any chlorine demand, see page 9, and establish a chlorine level between 1.0 – 3.0mg/l. Always read and follow the instructions that are printed on the product label.



Sanitise your pool water

Bromine

Bromine is similar to chlorine in its effectiveness as a sanitiser but there are some important differences:

- Pools sanitised with bromine do not require the addition of chlorine stabiliser as bromine is not lost to sunlight in the way chlorine is.
- Bromine should be dosed into the pool via a chemical feeder (brominator), which is usually installed in the plant room after the filter and heater.
- Bromine, like chlorine, combines with organic compounds to form bromamines, but unlike chloramines, bromamines cause little or no eye, skin and nasal irritation. Also there is not the pungent smell sometimes associated with certain types of chloramines.
- As it takes 2.2mg/l of bromine to equal 1mg/l free chlorine, bromine levels need to be kept between 3.0 to 5mg/l.
- Bromine retains better levels of efficiency over a wider pH band than chlorine, see chart below.

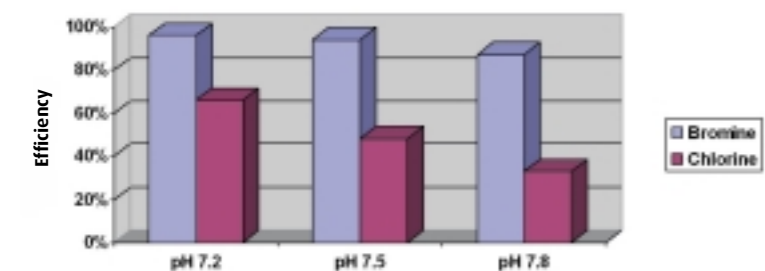
Blue Horizons Bromine Tablets

Blue Horizons Bromine Tablets should be dosed via a chemical feeder (brominator), which is easy and inexpensive to install retrospectively to an existing pool. When set up correctly your brominator will dispense the correct amount of bromine into the pool to maintain the ideal level between 3.0 to 5.0mg/l and all you need to do is top up the brominator with new tablets as and when required, this makes maintaining the sanitiser level in your pool very straightforward.

Summary of Blue Horizons Sanitisers

Product Description	Pack Sizes
Stabilised Chlorine Granules	1.0, 2.0, 5.0, 25.0Kg
Multifunctional Stabilised Chlorine Granules	2.0, 5.0Kg
Small Chlorine Tablet	2.5, 5.0Kg
Multifunctional Mini 20g Chlorine Tablets	1.0, 2.5Kg
200g Chlorine Tablets	2.0, 5.0, 25.0Kg
Multifunctional 200g Chlorine Tablets	2.0, 5.0, 25.0Kg
Multifunctional Floating Chlorine Dispenser	900g, 1.6Kg
Multifunction block	600g
Bromine Tablets	5.0Kg

Effects of pH Level on Sanitiser Efficiency



Testing your pool water

It could be argued that testing the water should be the first discipline of pool water management but keep in mind that the **BOAST** programme is a continuous and circular system and testing leads you on to Balancing, Oxidising, Algae prevention and Sanitising.

There are broadly four methods of testing pool water, test strips, pooltesters, comparator test kits and electronic test kits. For the testing of domestic swimming pools it is usually test strips or pooltesters that are used. Regardless of the testing method you choose, it is important that your pool water is regularly tested, ideally every day during the swimming season but, twice a week is the minimum.

Blue Horizons Test Strips

Under the Blue Horizons label there is a choice of four different test strips:

- 3-Way Test Strips (chlorine, pH & total alkalinity)
- 3-Way Test Strips (bromine, pH & total alkalinity)
- 5-Way Test Strips (free chlorine/bromine, total chlorine, pH, total alkalinity & calcium hardness)
- (3-Way Aquablanc Active Oxygen Test Strips – see Aquablanc leaflet for more information)

Although not as accurate as using a test kit, test strips are very quick and easy to use and take the 'chore' out of testing your pool water. Simply take a test strip from the pot, dip it into your pool water, hold level (being careful not to shake off the excess water), wait for the prescribed length of time and then compare the colour of the pads with the colours printed on the test strip pot.

Pooltesters

Pooltesters are test kits that use reagent tablets to determine the chlorine, bromine or pH levels. Take the pooltester to the poolside and turn it upside down, lower it into the pool to about an elbows depth and then turn it the correct way up so that it fills up with pool water. Once full of water put the kit on a level surface and add a Phenol Red tablet to test the pH level and a DPD No.1 tablet to check the free chlorine level.



You will have noticed under the section Balance Your Pool Water there are other things that also need to be tested, such as calcium hardness, total alkalinity, total dissolved solids and chlorine stabiliser (Cyanuric acid), there are kits available to check all of these, but if you don't want to test them yourself – take a one litre sample of your pool water to your Blue Horizons supplier every 4 - 6 weeks and they will be happy to perform the tests for you.



Beyond the BOAST Programme - Cleaners and Clarifiers

In addition to the BOAST programme there are a few other tasks that periodically need doing and these fall broadly under two headings, Cleaning and Clarifying.

Cleaning

Chemically cleaning filter media using Blue Horizons Filter Cleaner has already been mentioned within the section on Circulation and Filtration on page 3 the other area that needs cleaning is the waterline. Debris that floats on the water surface such as suntan lotion, cosmetics, blades of grass and insects will collect on the pool walls providing a source of food for bacteria and algae. A weekly clean around the waterline using Blue Horizons Tile & Liner Cleaner or Waterline Cleaning Paste will easily remove greasy deposits and remove unsightly 'tidemarks'.

Blue Horizons Filter Cleaner

A liquid cleaning agent, ideal for filter treatment for full and thorough cleaning of tired or dirty filters. Use by isolating filter via valves. Follow label instructions.

Blue Horizons Tile & Liner Cleaner

Liquid blended cleaning agent ideal for application to waterline using a soft cleaning cloth or sponge. Follow label instructions.

Blue Horizons Waterline Cleaning Paste

A Superb blend presented in a pot with sponge applicator for stubborn dirt and grease removal.

Blue Horizons Springwash

An Acid based cleaning compound, ideal for pool surrounds all year round, but excellent for full cleaning of new pools or those drained down for whatever reason. Follow label instructions.

Clarifying

Pool water can become cloudy for a number of reasons:

- Incorrect water balance

- Poor or insufficient filtration
- The start or end of an algae infestation
- A build-up of bather wastes

Within the Blue Horizons range there is a selection of clarifiers that will quickly restore water sparkle, but before using them you should ensure that:

1. The water is correctly balanced – see section on Balancing Your Pool Water
2. The filtration is running for a minimum of 8-hours per days (24-hours for best results) and that the filter does not require backwashing or chemically cleaning – see section on Circulation & Filtration
3. The sanitiser level is being maintained within the ideal range – see the Sanitise section

Once you are satisfied that the above conditions have been met then the Blue Horizons clarifiers can help speed up the clarifying process.

Blue Horizons Aquasparkle Tabs

These easy to use tablets are dosed via the skimmer and should only be used in pools with sand filtration systems. When added to the skimmer they dissolve fairly rapidly and move into the filter where they put a layer of coagulant on top of the sand. This layer of coagulant traps small particles, stopping them from passing through the filter and back into the pool. This action of removing small particles helps create truly sparkling water. The coagulant is removed when the filter is backwashed, so for continued small particle entrapment repeat dose after backwashing.

Blue Horizons JellyCLEAR Cubes

Clarification gel blocks offered in a twin JellyCLEAR Cube presentation pack. The JellyCLEAR Cubes improve filtration efficiency by coagulating debris and "tightening" the filter bed. Easy and safe to use in skimmers or weirs, each gel block treats up to 50,000 litres (11,000 gallons).

Beyond the BOAST Programme - Cleaners and Clarifiers

Blue Horizons Flockfix Cartridges

Pre-filled socks for greater control and handling ease containing clarifying tablets. Ideal for improving filtration efficiency and excellent support to non chlorine, oxygen based systems like Aquablanc.

Blue Horizons Granular Flocc

Flocc Granules sink unwanted debris to the pool floor creating clear sparkling water. Once the particles have settled on the pool floor they should be vacuumed to waste. This product should only be used in pools with sand filtration.

Blue Horizons Granular Flocc Dose Rates Table

Cubic Metres	Pool Volume			Dose Rate
	Litres	Gallons		
4.55 M ³	4,545	1,000		100g
11.36 M ³	11,364	2,500		250g
22.73 M ³	22,727	5,000		500g
45.45 M ³	45,455	10,000		1.00Kg

Blue Horizons Ultimate Water Clarifier Concentrate

A clarifier in liquid form that can be used with all types of filtration systems, cartridge, sand and diatomaceous earth. Ultimate Water Clarifier Concentrate is added directly to the pool with the filtration system running. Once in the pool it collects small particles and sticks them together making larger particles that are much easier for the filter to remove. Regular small doses of this concentrated product are all that are required to keep pool water looking crystal clear.

Blue Horizons ClearFast Aqua Sachet

Convenient to use single "hit" sachets for rapid clarification of pool water when hazy or murky. Each sachet will treat up to 50,000 litres (11,000 gallons).

Blue Horizons Ultimate Water Clarifier Dose Rates Table

Cubic Metres	Pool Volume			Dose Rates	
	Litres	Gallons	Hazy	Murky	
4.55 M ³	4,545	1,000	9ml	18ml	
11.36 M ³	11,364	2,500	22ml	45ml	
22.73 M ³	22,727	5,000	45ml	90ml	
45.45 M ³	45,455	10,000	90ml	180ml	

Summary of Blue Horizons Cleaning & Clarifying Products

Product Description	Pack Sizes	Liquid Granular Tablet Gel			
		Liquid	Granular	Tablet	Gel
Cleaners					
Filter Cleaner	1Ltr	✓			
Tile & Liner Cleaner	2Ltr	✓			
Waterline Cleaning Paste	350g				✓
Springwash	5Ltr	✓			
Clarifiers					
Aquasparkle Tabs	500g			✓	
JellyCLEAR Cubes	2 x 90g				✓
Flockfix Cartridges	1kg box			✓	
Granular Flocc	2kg		✓		
Ultimate Water Clarifier Concentrate	0.5Ltr & 1ltr	✓			
ClearFast Aqua Sachet	150ml	✓			

Preparing the pool for the winter

At the end of the outdoor swimming season there are a few things that you need to do to prepare the pool for the winter to ensure that the pool and pool equipment are protected from damage and that the water stays in reasonable condition. If you are not confident in winterising the pool yourself then we would recommend that you talk to your Blue Horizons supplier, who in most cases will be pleased to do it for you.

If you are confident that you can winterise the pool yourself then below is a brief outline of some of the things that need to be done.

1. Remove the solar cover, clean it, pack it up carefully and store it away somewhere that mice can't get at it.
2. Check the pH level and raise it to 7.6 – 7.8, this is slightly higher than the normal range and allows for dilution by rainwater (rainwater tends to be acidic) during the closed season.
3. Lower the water level in the pool so it is approximately 150mm – 200mm below the skimmer mouth opening in the pool.
4. Add a 10mg/l shock dose using Blue Horizons Granular Shock or Shock 'n' Floc
5. Add Blue Horizons Winter Time at the required dose rate, or Kleen Pool.
6. Keep the filtration system running after you have added the above products to ensure they are distributed, to do this you will need to close the valve for the skimmer(s) in the plant room and just draw water via the main drain, otherwise you will suck air into the circulation system.
7. Put bungs into the water outlets at the bottom of the skimmer(s) to stop rainwater going down the pipe.
8. In the plant room open the valve for the skimmer(s) and run the pump for a few seconds only, this will clear the skimmer pipelines of water.
9. Turn the filtration system off.
10. Drain down the pump, filter and heater as per the manufacturers instructions.
11. Disconnect the pipe-work from the pump, if the plant room is likely to freeze or get damp during the winter it is good practice to remove the pump to a warm, dry place.
12. Float some items in the pool, old chemical containers are ideal for this but weight them first with some small stones so that they are partially submerged under the water. Doing this will take the pressure off the sides of the pool should ice form on the waters surface.
13. Put an old, weighted chemical container in the skimmer(s), this will help relieve the pressure off the skimmer sides – because although the skimmer is empty at the time of winterising it will fill with rainwater over time.
14. Fit your winter debris cover to keep leaves and other debris out of the pool during the closed period.
15. Every 4 – 6 weeks add a 5mg/l dose of Blue Horizons Granular Shock or Shock 'n' Floc and brush pool to help distribute the product as best you can.

Safety

General Pool Safety

- Never leave children or non-swimmers unattended in the pool.
- Never use the pool during a thunderstorm
- Never use inappropriate electrical equipment in the pool or close to the pools edge
- Never allow diving in shallow water
- Stop people from running near the pools edge
- Don't allow horseplay in or around the pool
- Never allow glass objects in the pool or around the pool area
- Always remove pool covers completely before getting into the pool

General Chemical Safety

- Always read the instruction label on chemical products
- Always adhere to the instructions printed on the product label
- Always handle chemicals in a well ventilated area, preferably outdoors
- Always keep chemicals out of the reach of children
- Always wash hands after handling chemicals
- Always store chemicals in a cool, dry place
- Always put the lids back on chemical containers
- When prep-dissolving products always use a clean container
- Never use chemicals that don't have an instruction label
- Never mix chemicals
- Never dose chemicals when there are bathers in the pool

Chemical Hazards

Product Description
(NH = Non Hazardous)



Blue Horizons Balancers					
Calcium Hardness Raiser	✓				
Total Alkalinity Raiser (NH)					
Total Alkalinity Reducer		✓			
pH Minus	✓				
pH Plus	✓				
Stain & Scale Inhibitor	✓				
Chlorine Stabiliser Granules (NH)					
Chlorine Stabiliser Tablets (NH)					
Blue Horizons Oxidisers					
Granular Shock		✓	✓	✓	
Shock 'n' Floc		✓	✓		
Non Chlorine Shock		✓		✓	
Pool Fusion		✓	✓		
Blue Horizons Algaecides					
Kleen Pool	✓		✓		
Algae Controller	✓		✓		
AlgiMAX Eliminator	✓		✓		
Summerclear			✓		
Ultimate Algicide Concentrate	✓		✓		
Winter Time			✓		

Product Description
(NH = Non Hazardous)



Blue Horizons Sanitisers					
Stabilised Chlorine Granules			✓		✓
Ultimate Stabilised Chlorine Granules			✓		✓
Small Chlorine Tablets			✓	✓	✓
Multifunctional Mini 20g Chlorine Tabs			✓	✓	✓
200g Chlorine Tablets			✓	✓	✓
Multifunctional 200g Chlorine Tabs			✓	✓	✓
Multifunctional Floating Chlorine Dispenser			✓	✓	✓
Multifunction block			✓	✓	
Bromine Tablets		✓	✓		
Blue Horizons Clarifiers, Cleaners & Specialities					
Aquasparkle Tabs	✓				
JellyCLEAR Cubes (NH)					
Flockfix Cartridges	✓				
Granular Floc	✓				
Ult Water Clarifier Concentrate (NH)					
ClearFast Aqua Sachet (NH)					
Springwash		✓			
Tile & Liner Cleaner	✓				
Waterline Cleaning Paste (NH)					
Filter Cleaner	✓				
Chlorine Reducer (NH)					