



TROUBLE SHOOTING GUIDES 2020

CHLORINE ODOUR/EYE STING

POTENTIAL CAUSES TOO LITTLE OR NO FREE CHLORINE INCORRECT pH

The most common, and in most cases incorrect assumption is that there is too much chlorine in the water. The most likely cause is too little free chlorine.

Low levels of free chlorine are unable to break down the combined chlorine (chloramines) that can give rise to unpleasant chlorine smells, eye or skin irritation. The problem can be made worse if the pH is not within recommended limits.

The use of a photometer or test strips may help to establish the most likely cause.



Granular Shock Chlorine

To shock chlorinate the pool, fast dissolving and fast acting



pH Increaser

To increase low pH



pH Reducer

To decrease high pH

1. If due to little or no free chlorine

Test a pool water sample and take readings to determine the levels of free chlorine (DPD no 1) and total chlorine (DPD no 3). If the tests indicate that the combined chlorine (total chlorine less free chlorine) is too high, superchlorinate as indicated below. As a rough guide, combined chlorine will be too high if it is more than half the level of the free chlorine, and in any case the combined chlorine should always be below 1mg/l (ppm). NOTE: It is important to test for free chlorine daily and maintain levels in the range 2.0-4.0mg/l (ppm) when using stabilised chlorine. Pools disinfected with unstabilised chlorine donors should be maintained at a free chlorine level of 1.0-3.0mg/l (ppm). These levels will not only provide sufficient chlorine to kill off the pollution introduced into the water but will also help breakdown the by-products which if left unchecked, can cause irritation and a pungent 'chlorine smell'. It is also good practice to routinely shock. To superchlorinate the pool, add 10g per 1000 litres. Approximately 1.3g per 1000 litres will increase the free chlorine by 1mg/l (ppm).

WARNING: Do not mix Westcoast products with any other types of chlorinating compounds (even other products in the Westcoast range) either in the dry state, or in the skimmer. Fire or explosion may result. If using with other products, dose them separately into different areas of the pool.

2. If due to incorrect pH

It is important to maintain the pH between 7.2-7.6 to ensure maximum bather comfort and maximum chlorine efficiency. Low pH levels will cause eye and skin irritation. Raise the pH level by dosing Westcoast - pH Increaser at a rate of 10g per 1000 litres until the pH is within the correct range. Please follow the label dosing instructions carefully. High pH will not only cause irritation but will considerably reduce the efficiency of the chlorine. At pH 8 the chlorine is only 10% effective. Reduce the pH by dosing Westcoast - pH Reducer. Reducer at a rate of 10g per 1000 litres until the pH is within the correct range. Follow the label dosing instructions carefully and remember not to dose in one spot, otherwise some alkalinity may be destroyed. Before adding any chemicals to your pool, ensure no animals or people are in the pool. Keep the circulation running to ensure adequate dispersion of the chemicals.

CLOUDY WATER

POTENTIAL CAUSES

- HIGH pH AND/OR TOTAL ALKALINITY
- LOW FREE CHLORINE LEVEL
- HIGH STABILISER (CYANURIC ACID) LEVEL
- POOR OR INADEQUATE FILTRATION

Cloudy water could be due to a number of factors:

High total alkalinity or pH which bring hardness salts out of solution. Low free chlorine allowing a build-up of bacteria. Poor filtration which is ineffective at removing particles suspended in the water. Or the start of an algae bloom.

The use of a photometer or test strips may help to establish the most likely cause.



**Granular
Shock Chlorine**

To shock chlorinate the pool, fast dissolving and fast acting



Clarifier

To clarify the pool water



pH Reducer

To decrease high pH

1. If due to high pH and/or alkalinity

The pH tells us whether the water is acid or alkaline and requires checking on a regular basis. It should be maintained in the range 7.2-7.6. If the pH is above 7.6, lower it by dosing Westcoast - pH Reducer at a rate of 500g per 50m³ (11,000 gallons). With the circulation running, distribute around the pool, avoiding the skimmers. Do not dose it in one spot otherwise some alkalinity may be destroyed.

Alkalinity should be kept between 80-150mg/l (ppm). If necessary it can also be reduced using Westcoast - pH Reducer.

2. If due to low free chlorine

NOTE: The free chlorine residual should be maintained within the ranges 2.0-4.0mg/l (ppm) for stabilised and 1.0-3.0 for unstabilised chlorine products, even when the pool is not in use. Shock chlorinate the pool using Westcoast – Granular Shock Chlorine. Add 10g per 1000 litres. Approximately 1.3 grams per 1000 litres will increase the free chlorine by 1mg/l (ppm) Broadcast the required quantity across the pool with the circulation running.

WARNING: Do not mix Westcoast Superfast products with any other types of chlorinating compounds (even other products in the Westcoast range) either in the dry state, or in the skimmer. Fire or explosion may result. If using with other products, dose them separately into different areas of the pool

3. If due to high stabiliser level

Stabiliser is essential in an outdoor pool but if you are using stabilised mini tabs, the stabiliser level may well increase depending on the level of water replacement. Due to structural considerations relating to the pool design etc., great care should be exercised when draining large quantities of water and the advice of Westcoast should be sought regarding the maximum quantity of water that it is safe to replace in one operation. The stabiliser level should be between 30-60mg/l, but ideally at the lower end of this range following a water replacement.

4. If due to poor or inadequate filtration

It is good practice to have the quality of the filter media replaced every year. The correct depth of media is essential if your water is to remain free from small suspended particles. Your Westcoast engineer will be able to advise on all aspects of filtration equipment and maintenance.

Ask your Westcoast engineer to check that there is a good flow of water being taken from the bottom pick up of the pool. The filter may be aided in the removal of very fine suspended particles by the use of Westcoast - Clarifier. Add an initial dose of 4ml per 1000 litres. To keep the water sparkling add a routine dose of 2ml per 1000 litre.

HIGH pH

POTENTIAL CAUSES

NATURALLY HIGH pH MAINS WATER
USE OF ALKALINE SANITISERS
EXCESS ADDITION OF pH INCREASER

High pH can result in cloudy water and contribute to scale formation.

Regulating pH is one of the most important aspects of pool care and it should be maintained in the range 7.2-7.6.

High pH will also reduce the effectiveness of chlorine based sanitisers.



pH Reducer

To decrease high pH

1. Effect of mains water

The pH and alkalinity of your mains (make up) water will have a major influence on the water balance of the pool E.G. the pH, alkalinity etc. It is therefore important to regularly check both pH and alkalinity of the mains water when either refilling the pool or adding a substantial quantity of fresh water. Action can then be taken to make any necessary corrections to the pH and/or alkalinity. It is also important to regularly check the pH and alkalinity of the pool water. These two properties are closely linked and a high pH can also mean there is a high alkalinity. A high alkalinity will make it difficult to lower the pH. To determine total alkalinity levels, use an photometer or test strips.

2. Effect of sanitizer

The sanitiser being used can have a significant effect on the pH. Of the chlorine based sanitisers in regular use, sodium hypochlorite (liquid chlorine) and calcium hypochlorite will tend to increase the pH. Sodium hypochlorite is strongly alkaline and will invariably require the use of a pH reducer.

The effect that calcium hypochlorite has on the pH will depend on the make-up of the mains water, i.e. whether the water is soft or hard.

3. Excess use of pH increaser

It is important not to routinely add pH increaser without testing the pool water. Carry out regular tests and only add the quantities of chemical indicated by the test.

Before adding any chemicals to your pool, ensure no animals or people are in the pool. Keep the circulation running to ensure adequate dispersion of the chemicals.

4. To reduce pH

Whatever the cause of high pH, it should be reduced to within the recommended range. To lower the pH, dose Westcoast - pH Reducer at a rate of 10g per 1000 litres.

With the circulation running, distribute around the pool, avoiding the skimmers. Do not dose it in one spot otherwise some alkalinity may be destroyed.

If it is necessary to reduce both the pH and alkalinity, treat the alkalinity before the pH.

LOW pH

POTENTIAL CAUSES

NATURALLY LOW pH MAINS WATER
USE OF ALKALINE SANITISERS
EXCESS ADDITION OF pH REDUCER

Low pH can result in cloudy water and contribute to scale formation.

Regulating pH is one of the most important aspects of pool care and it should be maintained in the range 7.2-7.6.

Low pH will also reduce the effectiveness of chlorine based sanitisers.



pH Increaser

To increase low pH

1. Effect of mains water

The pH and alkalinity of your mains (make up) water will have a major influence on the water balance of the pool. E.G. the pH, alkalinity etc. It is therefore important to regularly check both pH and alkalinity of the mains water when either refilling the pool or adding a substantial quantity of fresh water. Immediate action can then be taken to make any necessary corrections to the pH and/or alkalinity. It is also important to regularly check the pH and alkalinity of the pool water.

These two properties are closely linked and a low pH can also indicate there is a low alkalinity. A low alkalinity will not protect the pH from sudden movement (bounce). To determine alkalinity levels use an photometer or test strips. It should be maintained within the range 80-150mg/l (ppm).

2. Effect of sanitiser

The sanitiser being used can also have a significant effect on the pH. Of the chlorine based sanitisers in regular use, 'trichlor' based slow dissolving chlorine tablets are acidic and will tend to reduce the pH. The degree to which this occurs will depend on your mains (make up) water and the quantity of sanitiser used. The hard waters generally found in the South-East of England will have a higher tolerance to acidic chlorine donors and will require relatively less pH adjustment. However, in order to prevent acidic water conditions, the pH should be tested on a regular basis, preferably daily and the necessary corrections made.

3. Excess addition of pH Reducer

It is important not to routinely add pH increaser without testing the pool water. Carry out regular tests and only add the quantities of chemical indicated by the test.

Before adding any chemicals to your pool, ensure no animals or people are in the pool. Keep the circulation running to ensure adequate dispersion of the chemicals.

4. To increase the pH

To increase the pH, dose Westcoast - pH Increaser at a rate of 10g per 1000 litres with the circulation running, distribute around the pool, avoiding the skimmers. Re-test after 24 hours and if the pH is still low, repeat the dose until the pH is within the range 7.2-7.6.

If it is necessary to increase both the pH and alkalinity, treat the alkalinity before the pH. To increase the alkalinity, refer to the Troubleshooting Guide - pH Bounce.

pH RESISTANT TO MOVEMENT

POTENTIAL CAUSES HIGH TOTAL ALKALINITY

This can cause cloudiness, excessive scaling and residues in the pool.

Total alkalinity is a measure of the alkaline materials (mainly bicarbonates) in the pool water and should be maintained in the range 80-150mg/l (ppm).

Having sufficient total alkalinity prevents sudden pH fluctuation ('bounce') but an excessively high total alkalinity will make the pH resistant to change and the water will then become what is described as over buffered. High total alkalinity makes it difficult to adjust the pH as any correcting chemicals will have their effect taken up (buffered) by the total alkalinity. The management of pH will become relatively easy once the total alkalinity level is within the range of 80-150mg/l (ppm).



pH Reducer

To decrease high pH

High total alkalinity can arise from a number of causes

The make up (fresh mains) water has a high total alkalinity which is usually associated with a 'hard' water source, or the water supply company has artificially raised the alkalinity.

Overdosing with chemicals that are designed to increase the alkalinity.

Very high usage of sodium hypochlorite sanitiser (bleach/liquid chlorine) has on some occasions been associated with a high alkalinity.

Before adding any chemicals to your pool, ensure no animals or people are in the pool. Keep the circulation running to ensure adequate dispersion of the chemicals.

To lower the total alkalinity

Carry out a total alkalinity test and if the reading is above 150mg/l (ppm), the level will need to be lowered.

To lower the total alkalinity, dose Westcoast - pH Reducer at a rate of 20g per 1000 litres. This dose is designed to reduce the total alkalinity by approximately 10–20mg/l and should be repeated as necessary on a daily basis until the total alkalinity is below 150mg/l (ppm). With the circulation running, pour in a small area at the deep end of the pool, avoiding the skimmers.

Re-test the water after 24 hours and if the total alkalinity is still high, repeat the dose varying the location slightly but avoiding the skimmer.

Please note that the acid dosing technique is important here. To have the desired effect of reducing the total alkalinity rather than the pH, the acid must be poured into a small area of the pool and not widely dispersed. The aim is to create localised conditions of low pH such that the acidity will react with the bicarbonates which make up the bulk of the total alkalinity at normal swimming pool pH values.

If pH and total alkalinity both need correction, treat the total alkalinity first.

pH BOUNCE

POTENTIAL CAUSES LOW TOTAL ALKALINITY

An unstable pH can give rise to either corrosion or scaling.

Total alkalinity is a measure of the alkaline materials (mainly bicarbonates) in the pool water and should be maintained in the range 80-150mg/l (ppm). Having total alkalinity in this range prevents sudden pH fluctuation ('bounce'). Low total alkalinity can cause the pH to fall suddenly resulting in corrosive conditions. A high total alkalinity will make the pH resistant to change and the water will then become what is described as over buffered.



pH Increase

To increase low pH

Low total alkalinity can arise from a number of causes

The make up (fresh mains) water may have a low total alkalinity, usually associated with a 'soft' water source. However, in areas where mains water with a low pH and low total alkalinity has been found to be 'aggressive' towards old (lead) pipe work systems, the water supply companies have artificially boosted the total alkalinity with chemical additions. It is therefore now unusual to find mains water with an excessively low total alkalinity (& low pH).

pH reducing chemicals such as dry acid or hydrochloric acid may have been dosed incorrectly. If these materials are dosed in one spot and not distributed evenly around the pool, an area of high local acidity will be created. The bicarbonates cannot survive in these areas of high acidity (low pH) and some total alkalinity will be destroyed.

High local acidity can be caused by turning the circulation off when slow dissolving chlorine tablets are being used in the skimmer, pump basket or in a circulatory feeder device. A solution of low pH and relatively high chlorine content will be formed in these stagnant conditions which will have the ability to destroy total alkalinity.

TIP: When slow dissolving chemicals such as chlorine tablets are present in the system, the circulation should be kept running continuously whenever possible.

Before adding any chemicals to your pool, ensure no animals or people are in the pool. Keep the circulation running to ensure adequate dispersion of the chemicals.

To raise the total alkalinity

To raise the total alkalinity, dose Westcoast - pH Increaser at a rate of 30g per 1000 litres. This dose is designed to increase the total alkalinity by approximately 10-20mg/l (ppm) and should be repeated as necessary on a daily basis until the total alkalinity is above 100mg/l (ppm). With the circulation running, distribute around the deep end, avoiding the skimmers.

100mg/l (ppm) is the generally recognised minimum total alkalinity for pools sanitised with stabilised chlorines or bromine.

If pH and total alkalinity both need correction, treat the total alkalinity first.

NO APPARENT CHLORINE

POTENTIAL CAUSES TOO MUCH CHLORINE

It is not uncommon to find a lack of colour when carrying out the test for free chlorine using a DPD No.1 tablet or test strip, when fully expecting to obtain a reading.

If there are no other indicators such as the presence of algae or cloudy water it is highly likely that there is too much chlorine present. A high level of chlorine will bleach out the colour reagent in the test tablet or test strip and give a false indication leading you to believe that there is no chlorine present. When 'shock' dosing a pool, care should be taken in calculating the quantity of chlorine required to achieve the desired residual so as to avoid over chlorinating. Greater control of 'shock' dosing can be achieved by the use of Westcoast Superchlorinator.

Low levels of free chlorine are unable to break down the combined chlorine (chloramines) that can give rise to unpleasant chlorine smells, eye or skin irritation. The problem can be made worse if the pH is not within the recommended quantity, a test kit or test strips may help to establish the most likely cause.



pH Reducer

To decrease high pH

NO APPARENT CHLORINE ACTION TO BE TAKEN

If you carry out the standard test for free available chlorine using a DPD No. 1 test method and obtain no reading when expecting to find chlorine present, repeat the test following the steps set out below:

Make up a solution containing 50% pool water and 50% tap water.

Add a few droplets of this solution to the pool tester as normal, not forgetting to first rinse the cell with the solution. Add a DPD No.1 tablet and observe it closely.

If a pink colouration can be seen coming from the surface of the tablet, this indicates the presence of chlorine. Top up the cell with the solution you have prepared.

If this dilution produces a sufficiently stable colour to enable a reading to be taken from the tester, double the reading to give the actual value of the free chlorine. If you notice the colour fading, it is almost certain that the high level of chlorine in the sample is bleaching the reagent in the test tablet. When using test strips to test for free available chlorine, make up a solution containing 50% pool water and 50% tap water, dip the test strip in the sample and colour match it against colour chart. Then double the reading.

Neither animals nor handlers should not use the pool under any circumstances if the free chlorine is above 10mg/l (ppm), irrespective of sanitiser.

Excess chlorine can be chemically removed using Westcoast - Chlorine Reducer. However, great care should be exercised when using this product as overdosing can lead to an artificial chlorine demand.

If in doubt about the dose rate or procedure, consult Westcoast.

If carrying out this procedure yourself, allow sufficient time for the Westcoast Chlorine Reducer to fully react with the excess free chlorine. The recommended dose should be applied a little at a time and the free chlorine tested after each application, allowing time for dispersion (approximately one filtration turn over which is usually 6-8 hours).

NOTE: Chlorine readings and animal safety

If the pool is unstabilised and chlorine sanitisers such as calcium hypochlorite or sodium hypochlorite are being used, bathing should not re-commence until the free chlorine level has fallen to 3.0mg/l (ppm) or below.

For a fully stabilised pool, bathing may be possible if the chlorine is only a few parts per million above the recommended 4.0mg/l (ppm) maximum. However, caution should be exercised and swimming stopped if any eye or skin discomfort is experienced.

Diluting the pool water may be a quicker and cheaper option to adjusting with chemicals.

SCALE

POTENTIAL CAUSES UNBALANCED WATER

Calcium carbonate deposits (scale) on pool surfaces and have an unattractive rough feel. If scale is present in the pool circulation system it can cause a reduction in flow and heater efficiency.

Unbalanced water can be due to high pH and/or high total alkalinity. These conditions will create a scale forming tendency. High total alkalinity in particular will make it difficult to adjust the pH and can also be a source of carbonates. Under certain conditions these will deposit on pool surfaces and in the circulation system as calcium carbonate (scale). For further information on high pH and high alkalinity, please refer to the relevant Troubleshooting Guides. It is essential that the pool water is tested on a regular basis and the recommended key parameters are maintained. For pH this is 7.2-7.6 and total alkalinity is 80-150mg/l (ppm). It is also advisable to regularly check both the pH and total alkalinity of the mains make up water when either refilling the pool or adding a substantial quantity of fresh water. Prompt action may then be taken to make the necessary corrections in order to prevent the pool water going out of balance.



No Scale

Minimises staining and scale



pH Reducer

To decrease high pH

To lower the total alkalinity

If pH and total alkalinity both need correction, treat the total alkalinity first.

Carry out a total alkalinity test and if the reading is above 150mg/l (ppm), the level will need to be lowered.

To lower the total alkalinity, dose Westcoast - pH Reducer at a rate of 20g per 1000 litres. This dose is designed to reduce the total alkalinity by approximately 10-20mg/l and should be repeated as necessary on a daily basis until the total alkalinity is below 150mg/l (ppm). With the circulation running, pour in a small area at the deep end of the pool, avoiding the skimmers.

Retest the water after 24 hours and if the total alkalinity is still high, repeat the dose varying the location slightly but avoiding the skimmers.

Please note that the acid dosing technique is important here. To have the desired effect of reducing the total alkalinity rather than the pH, the acid must be poured into a small area of the pool and not widely dispersed. The aim is to create localised conditions of low pH such that the acidity will react with the bicarbonates which make up the bulk of the total alkalinity at normal swimming pool pH values.

To lower the pH

To lower the pH, dose Westcoast - pH Reducer at a rate of 500g per 50m³ (11,000 gallons). With the circulation running, distribute around the pool, avoiding the skimmers.

Do not dose it in one spot otherwise some alkalinity may be destroyed. Retest the water after 24 hours and if the pH is still high, repeat the dose.

To remove scale

Scale on the swimming pool surrounds and surfaces above the water line may be removed with Westcoast – No Scale.

Westcoast – No Scale may be used neat or diluted at a rate of 1 litre to 30 litres of water depending on the severity of the stain to be removed. Follow the pack label instructions carefully.

PRECAUTION: Wear gloves and protective eyewear when using Westcoast - No Scale. The product contains a mixture of acids and is corrosive.

COLOURED WATER

POTENTIAL CAUSES

EXCESS OF MINERALS OR METAL IN THE WATER

Excess minerals and metals will colour pool water. Minerals will invariably come from natural sources such as the fresh water entering your pool. Metals can find their way into pool water in two ways, either overdosing with copper-based algaecide or metal corrosion/erosion caused by low pH.

Overdosing with copper-based algaecide.

There may be an excess of copper due to overdosing of a copper-based algaecide. This form of copper remains invisible until it is oxidised by the addition of chlorine and once this has occurred the copper can appear in the water as a discolouration which is invariably green, although it can sometimes take on a greenish blue tint. Shock dosing will oxidise copper more quickly than the routine daily addition of sanitiser and the result may be a dramatic discolouration rather than a gradual one. This is the reason for a clear pool suddenly changing colour immediately after shock dosing with chlorine.

Low pH and metal corrosion/erosion

If the pH is allowed to fall significantly, acidic conditions will be created and any metal components within the system could be attacked. This will result in some of the metal going into solution and subsequent oxidation, usually by shock dosing, may cause the water to become discoloured. The colour formed can indicate the metal present (see additional information).

Granular Shock Chlorine

To shock chlorinate the pool, fast dissolving and fast acting

pH Increaser

To increase low pH

pH Reducer

To decrease high pH

If due to overdosing of copper algicide

Test the pH and adjust to 7.2-7.6

Shock dose the pool to 10mg/l (ppm) using Westcoast – Granular Shock Chlorine

WARNING: Do not mix Westcoast products with any other types of chlorinating compounds (even other products in the Westcoast range) either in the dry state, or in the skimmer. Fire or explosion may result. If using with other products, dose them separately into different areas of the pool.

Filter continuously until the water is clear. A dose of Westcoast - Clarifier will aid this process. If the colour persists, repeat the shock dose after 12 hours.

The addition of a sequestrant such as Westcoast – No Scale will aid the removal of metal contaminants. For high levels of dissolved minerals, dose at the rate of 20g per 1000 litre. Pour the product directly into the pool near the inlets with the circulation running. As a preventative, use the product at regular intervals (weekly or fortnightly).

If due to low pH

It is important to test the pH regularly and maintain it in the range 7.2-7.6.

To raise the pH, dose Westcoast - pH Increaser at a rate of 10g per 1000 litres which will raise the pH by approximately 0.2.

ADDITIONAL INFORMATION

Low Alkalinity

Alkalinity is closely linked to pH and it is present in pool water in order to protect the pH from sudden movement (bounce). The alkalinity should be kept between 80-150mg/l (ppm).

To correct low alkalinity, please refer to the Troubleshooting Guide – pH Bounce.

Water Colour

The colour of the water may indicate which metals are present

- Copper will give the water a blue/green colour.
- Iron will give the water a brown/rust colour.
- Manganese will give the water a black colour.

When filling your pool

If the water used to fill the pool comes from a bore-hole or well; it would be advisable to send a sample to Westcoast for testing, then we can advise on any pre-treatment required.

OVER STABILISATION

POTENTIAL CAUSES EXCESS OF CYANURIC ACID (STABILISER)

The symptoms will mimic those of a pool with very little or no chlorine, E.G. cloudy water, algae and there may also be a pungent 'chlorine-like' smell.

Cyanuric acid (stabiliser) is essential in an outdoor pool to reduce chlorine loss by sunlight. However, the level must be kept below an upper limit and if you are using stabilised chlorine products such as Westcoast - Mini-Tabs, its concentration may well increase, depending on the level of routine water replacement. This condition is sometimes referred to as 'chlorine lock' and although a perfectly healthy free chlorine reading can be obtained, the efficiency of the chlorine will be greatly impaired by the high level of cyanuric acid. The cyanuric acid level should be between 30-60 mg/l. It should be tested periodically, as if allowed to build up, the problems above will most likely occur.



Granular Shock Chlorine

To shock chlorinate the pool, fast dissolving and fast acting



pH Increaser

To increase low pH



pH Reducer

To decrease high pH

To reduce stabiliser (cyanuric acid) level

If you suspect a high stabiliser level, carry out a cyanuric acid test and if necessary, contact Westcoast to see how much pool water you will need to replace with fresh water.

Due to structural considerations relating to the pool design etc. great care should be exercised when draining large quantities of water and the advice of a Westcoast engineer should be sought regarding the maximum quantity of water that it is safe to replace in one operation.

To control stabiliser (cyanuric acid) level

Always ensure there is adequate water replacement when carrying out such routine operations as back-washing the filters. This will reduce the likelihood of needing a major water replacement to bring the pool back into a useable condition. Never use stabilised chlorine for superchlorination or shock dosing as this will contribute to the problem. The ideal product for this operation is non-stabilised chlorines such as Westcoast - Granular Shock Chlorine. These products should be used within the pH range 7.2-7.6. To adjust the pH you will require either Westcoast - pH Increaser or Westcoast - pH Reducer. For instructions on the use of these products please refer to the pack labels or the relevant Troubleshooting Guides.

To sanitise with stabiliser-free chlorine

If difficulty is experienced in maintaining the cyanuric acid level within the recommended range of 30-60 mg/l, it would be advisable to change from a stabilised chlorine sanitiser to an unstabilised one for routine (daily) treatment.

However, for outdoor swimming pools a certain level of stabiliser will be required in order to prevent chlorine loss to sunlight.

WARNING: Do not mix Westcoast products with any other types of chlorinating compounds (even other products on the Westcoast range) either in the dry state, or in the skimmer. Fire or explosion may result. If using with other products, dose them into the pool separately.

ALGAE

POTENTIAL CAUSES

LOW FREE CHLORINE LEVEL

HIGH pH

HIGH STABILISER LEVEL (CYANURIC ACID)

HIGH PHOSPHATE LEVEL

Although algae exists in many forms, the most common found in our swimming pools in this region is green algae (Chlorella).

The chlorine, which is normally an effective algaecide may not have been maintained at recommended levels or not be acting as efficiently as it should. This can happen if for instance the pH of the pool water is outside recommended parameters or the stabiliser (cyanuric acid) level is too high. Phosphates from various sources, if uncontrolled, can be a major nutrient source for algae growth.

The use of a photometer or test strips may help to establish the most likely cause.



**Granular
Shock Chlorine**

To shock chlorinate the pool, fast dissolving and fast acting



Clarifier

To clarify the pool



Summer Clear

To remove Algae

If due to low free chlorine

Adjust the pH to as near 7.2 as possible - this will make the chlorine much more effective for the task in hand. To lower the pH, dose Westcoast - pH Reducer at a rate of 10g per 1000 litres. Dose no more than 1kg at a time. With the circulation running, distribute around the pool, avoiding the skimmers. Do not dose it in one spot otherwise some alkalinity may be destroyed. Shock treat the pool using Westcoast – Granular Shock Chlorine. Dose at the rate of 22g per 1000 litres. Distribute the product evenly over a wide area in the deepest part of the pool and keep the circulation running. There is no need to pre-dissolve in water due to its good solubility. It will dissolve rapidly to form free chlorine which helps kill algae.

WARNING: Do not mix Westcoast shock products with any other types of chlorinating compounds (even other products in the Westcoast range) either in the dry state, or in the skimmer. Fire or explosion may result. If using with other products, dose them separately into different areas of the pool.

Brush off any algae that may be clinging to the pool surfaces. Run the filter for 24 hours and then backwash to remove dead algae from the top of the filter. Vacuum the pool. As the algae is killed off, the pool will probably turn milky. This can be cleared with an initial dose of 2ml per 1000 litres of Westcoast - Clarifier. A second dose of 2ml may be required depending on the amount of suspended material (dead algae cells) to be cleared. Thereafter, ensure that free chlorine levels never fall below 1.5mg/l (ppm) whether the pool is in use or not.

If due to high stabiliser level

Stabiliser is essential in an outdoor pool but if you are using either stabilised chlorine granules, Mini-Tabs (including multifunctional products), the level will increase if water replacement has been insufficient during backwashing.

If due to high phosphate levels

Phosphates are chemical compounds containing phosphorus and oxygen. They are essential nutrients needed to support life and form part of the process used to fuel cell growth and maintenance. Phosphates are therefore a major nutrient source for algae growth in swimming pool water, supporting their development even in the presence of chlorine. Removing them will dramatically reduce the potential for algae growth. They can enter the swimming pool via mains top-up water, plant waste, urine, agricultural and garden run-off following heavy rain and even airborne dust.

It is essential to measure the amount of phosphate in your pool water to allow its control. This can easily be performed using Phosphate Test Strips.