



# reliance

# POOLCLEAR

## ***Natural Water Conditioner.***

POOLCLEAR is a saturated complex ionic aqueous solution. The ions maintain a stable POOLCLEAR residual in the water until they are used up by this process.

Typically a swimming pool with a volume of 60,000 litres of water only needs to be dosed with up to one litre of POOLCLEAR every 4 weeks and up to 1Litre of POOLBOOSTER when the pool requires it. Much the same as one would shock dose a pool in times of need. That is when there is high pool traffic . During the low season the pool will use significantly less of both products with regenerator becoming unnecessary during the winter months.

The pH needs to be tested using the POOLCLEAR Pooltester and maintained at between 6.8 and 7.2 with 7.0 being the desired target. The POOLCLEAR solution is dosed by pouring the dosage amount directly into the filter intake (weir). The POOLBOOSTER is also dosed by adding product into the weir while the filter is running. The POOLBOOSTER then needs to be left for 15 minutes before bathing can resume. The residual level of POOLCLEAR is to be monitored by testing the water for copper content, using the tester. The target level is 0.4-0.8mg/l of copper. The advantages and desired effect of this pool treatment solution will be to improve the quality of the swimming pool water

## **POOLCLEAR ... A Step by Step Guide to using...**

A general overview of how to treat your pool using POOLCLEAR, the world's leading Eco and bather-friendly non-chlorine swimming pool treatment.

pH control pH- / pH+

Optimum POOLCLEAR performance is between pH of 6.8 and 7.2

Verify the volume of water in your pool

Correct swimming pool pH control is essential to maintain ideal bathing conditions. If swimming pool pH is too high, the water will be less comfortable for bathers, sanitizers lose their efficiency and the water may become dull and cloudy. Ideal bathing conditions exist between a pH level of 7.0 and 7.2 with total alkalinity of 80-150 mg/l (ppm). Then if necessary adjust the pH following the instructions below.

#### **TO DECREASE swimming pool pH**

Add Acid (Hydrochloric Acid) as follows;

Pour the Acid all around the pool parameter and keep the pump running to allow re-circulation. You can also add the acid by pouring into the weir while the pump is running on normal filter position. Wait for a minimum of 2 hours then recheck pH level. If it is still above 7.2 then repeat the above procedure. Allow a minimum of 1 hour after application of this product before swimming.

#### **TO INCREASE swimming pool pH**

Add Alkali (Bicarboante of Soda) as follows;

Apply the required amount of Bicarb by pre-dissolving the product in a clean container with clean, warm water. Pour the solution all around the pool parameter and keep the pump running to allow re-circulation. You can also add the acid by pouring into the weir while the pump is running on normal filter position. Wait 1 to 2 hrs then re check the pH level. If it is still below 7.0 then repeat the above procedure.

Check the pool water for copper levels and take these, if any, into account when working out your initial POOLCLEAR dosage. Apply the required amount of POOLCLEAR by pouring the full dose directly into the skimmer box and keep the pump running to allow re-circulation. In larger commercial pools, POOLCLEAR can be added manually or via an automated dosage system. Changing from chlorine to POOLCLEAR is easy. Adjust the pH level to between 6.8-7.2 (target 7.0) then add appropriate dose of POOLCLEAR instead of chlorine when you next treat the pool. Use POOLCLEAR Pooltester or electronic test equipment and maintain the copper level between 0.4 and 0.8 ppm. If required adjust future dosage accordingly. As a guide, when your copper reading reads 0.4 ppm add a quarter to a half of the initial dose. Keep the pH between 7.0 and 7.2. Add PH+ or PH- to adjust. This will ensure you have clear and safe water to bathe in.

- Softens water

- Environmentally friendly

Dosage Guidelines for Poolclear

**Dosage Guidelines for POOLCLEAR.**

In all cases below, ensure the pH level remains within the recommended levels of 7.6 to 7.2 (target 7.0).

The below dosages are based on an initial copper reading of 0.0 in the pool water. **POOLCLEAR**

**20,000** litres = initial dose 400ml

**25,000** litres = initial dose 500ml

**50,000** litres = initial dose 1litre

**75,000** litres = initial dose 1.5 litres

**100,000** litres = initial dose 2 litres

**130,000** litres = initial dose 2.5 litres

**250,000** litres = initial dose 5 litres

This table shows the approximate amount of POOLCLEAR required to raise the copper level by 0.1mg/l (ppm).

#### **LITRES POOLCLEAR DOSE**

**25,000** litres = 50ml

**30,000** litres = 60ml

**60,000** litres = 120ml

**90,000** litres = 180ml

**120,000** litres = 240ml

**150,000** litres = 300ml

**300,000** litres = 600ml

Therefore if the copper reading in a 30,000ltr pool is 0.3 and you wish to raise the level to 0.6 add 180ml of POOLCLEAR. As a guide when the POOLCLEAR Pooltester or electronic test meter shows less than 0.4 mg/l (ppm) of copper add a quarter to a half of the initial dosage. The maximum level of copper should not exceed 0.8 mg/l (ppm). Dosage levels are only a guide. Regularly test pool water.

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## Swimming Pool Water Volume

Always re calculate the volume of water in any pool to be treated. Most pool owners will have a distorted view of their swimming pool water volume. This calculation is the basis for every dose of chemical that will be introduced to the pool and is therefore vital.

**To calculate the swimming pool water volume:**

**Length x Breadth x Average Depth = volume of water** Average depth is calculated by (depth in the shallow end + depth in the deep end) divided by 2. Length 18 mtrs x 8 mtrs Breadth depth in the shallow end 1 mtr + depth in the deep end 2 mtrs, therefore average depth = (1mtr + 2 mtrs) divide by 2 = 1.5 mtrs. Therefore swimming pool water volume = 18 x 8 x 1.5 = 216 cubic meters = 216,000 litres

## POOLCLEAR - Swimming Pool Treatment Troubleshooting

Swimming pool water problems? Help is at hand from POOLCLEAR, the chlorine-free, skin-friendly range of cleaning and maintenance pool products. See our swimming pool water problem guide below, or read our **FAQ section** for more tips and advice.

**PROBLEM:**

Water is green & cloudy

**REMEDY:**

If necessary check & adjust pH Check & adjust POOLCLEAR

**PROBLEM:**

Sides of pool are slippery

**REMEDY:**

If necessary check & adjust pH Check & adjust POOLCLEAR Shock treat with POOLBOOSTER Keep filter running

**PROBLEM:**

Water is milky & cloudy

**CAUSE:**

Organic pollutants / Bather waste / Hard water

**REMEDY:**

If necessary check & adjust pH Check & adjust POOLCLEAR Shock treat with POOLBOOSTER Keep filter running

**PROBLEM:**

Corrosion

**CAUSE:**

pH value too low

**REMEDY:**

Adjust pH value

**PROBLEM:**

Blue/Green stains on pool liner / costumes and hair

**CAUSE:**

Severe overdose of POOLCLEAR and high or low pH

**REMEDY:**

Adjust pH value to 7.0-7.2

(Stains will gradually disappear after approx 1 week). Shock treat with Regenerator Do not add POOLCLEAR until copper test reads less than 0.4 mg/l (ppm) Rinse stained costumes / hair in dilute solution of vinegar or lemon juice. Then wash normally.

**SWIMMERS HAIR**

Swimmers hair can be the result of such factors as acidic water (low pH, below 6.8), iron or manganese in the water, and electrolysis from water moving through recirculation pipes at excessive velocities. It is seldom caused by the water treatment chemicals in a properly maintained pool. However, as we all know a small percentage of people can be prone to swimmers hair. Usually young children with very blonde hair, adults with permanent colour treatments or excessively dry hair. As a safeguard in such cases it is always a good idea to wet hair with tap water before entering any pool or spa to minimize the absorption of chemicals by your hair. It is also important to rinse hair after swimming. Health and beauty experts' recommend using a leave-in conditioner on chemically treated hair before entering a pool or spa. The best preventative for swimmers hair is keeping the pH in the 7.0 - 7.2 range and avoiding over-dosing with POOLCLEAR. There are commercial products available should hair discolouration occur.

Below is a list of some of these products:

**Johnson's Baby Shampoo**

**Shampoo containing chelating agent EDTA (ethylenediamene tetracetic acid) such as Head & Shoulders**

**UV Rescue Blonde Guard (manufactured by Redken)**

**Lemon Juice**

# POOLCLEAR - Frequently asked questions FAQs

Read our question and answer guide below for more information about our product range, what makes it different and for tips and advice on swimming pool cleaning and maintenance.

## **What is POOLCLEAR?**

POOLCLEAR is a saturated complex ionic aqueous solution containing chiefly Copper, Zinc, Gold, Silver, Aluminium, Manganese, Iron and Nitrogen.

## **How does POOLCLEAR vary from Chlorine and even Bromine products?**

In Solution POOLCLEAR has a much lower toxicity than the extreme ratings of chlorine and bromine. When swimming if POOLCLEAR treated water is swallowed it is not harmful, it will not sting your eyes, will not bleach your hair, and is odourless.

## **Can I swim in the water immediately after dosing with POOLCLEAR?**

YES

## **Is it safe if I swallow swimming pool water treated with POOLCLEAR solution?**

Yes it is totally safe and non toxic to humans at the recommended dosage levels and does not pose any hazard at all as all the active ingredients are well within the recommended limits for drinking water in South Africa.

## **What must I do when I first start using POOLCLEAR solution?**

Make sure that the filter is in fact working!! Backwash your filter to ensure it is clean. Check the pH, it should be between 6.8 to 7.2 If Not adjust with pool acid or alkali. Add POOLCLEAR as per the dosage guidelines on the bottle, ensuring to add directly into the weir whilst the filter is running.

## **How do we get rid of the chlorine presently in the pool?**

Chlorine is compatible with POOLCLEAR. You simply add POOLCLEAR instead of chlorine as your next dose would be due. The chlorine will just evaporate and your next dose of POOLCLEAR will only be due in approximately four weeks.

## **How long does it last?**

An average of four to five weeks. This is only a guide and may vary slightly due to temperature changes, pool usage, and hours of sunlight etc.

## **Are there any special considerations when disposing of backwashed water or emptying my pool?**

No. POOLCLEAR treated water poses no threat to the environment whatsoever unlike chlorine treated water. POOLCLEAR treated water can even be backwashed onto the lawn or your flowerbeds.

## **Can POOLCLEAR be used in above ground pools?**

Yes. POOLCLEAR is equally as effective in above ground and below ground pools and spas,

provided the dosing guidelines are adhered to.

**What other chemicals will I need to use in conjunction with POOLCLEAR in my pool?**

You will only need to use an acid or alkali to adjust the pH level of the water.

**How can I test for residual levels of POOLCLEAR solution in my swimming pool water?**

The Copper in POOLCLEAR solution is a good indicator of the level of active ingredients in the water. Copper content can be measured by using a pooltester. The optimum copper content of the water should be 0.5mg/litre if the level drops to less than this you can add your next dose of POOLCLEAR solution.

**Does the chemical cause any stains in the Pool?**

If you substantially overdose your pool, turquoise marks will appear on the walls. If you stop dosing the pool these marks will slowly disappear on their own. If you wish to remove these marks faster use only Hydrochloric acid (normal pool acid) for one to two weeks, making sure you maintain the correct pH (6.8 – 7.2). Then recommence dosing with POOLCLEAR solution 3 to 4 weeks after the stains have disappeared. The minerals in the solution are then IONISED and will not revert to a solid nor a crystal.

**Does POOLCLEAR react with the Ozone generators on Spas?**

POOLCLEAR will not react with the Ozone, but it will effectively remove the need for the Ozone.

**Will the water need dosing during the Winter?**

It is recommended that you administer one dose when you close your pool, and then test for Copper after three months to see if it needs further dosing. Due to the risk of staining,







Wednesday 24th November 2010  
Added two litres of PoolClear, pH 7,0



**Certificate of Analysis - Domestic Water**

Client:	Soil & More Reliance	Date Sample Drawn:	07.09.2010
Anal:	Andre Swanepoel	Date Sample Received:	07.09.2010
Ref:	<a href="mailto:reliance@reliance.co.za">reliance@reliance.co.za</a>	Report Date:	10.09.2010
Address:	Swimming Pool Water A	Laboratory ID:	W10/2407

Unit	Result	Microbiological Analyses	Unit	Result
mg/L	5.53	Heterotrophic Plate Count	cfu's / 100ml	No Growth
mg/L	0.04	Yeast	cfu's / 100ml	No Growth
mg/L	0.13	Mould	cfu's / 100ml	No Growth
mg/L	Bleach Odour	E. Coli	cfu's / 100ml	No Growth
m/L	<0.1	Total Coliforms	cfu's / 100ml	No Growth
	4.17			
mg/L	0.01			
mg/L	16.49			
	0.27			

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY UNDERTAKING

Product Name	POOLCLEAR
Supplier	Reliance
Contact Number	(021) 951 3161

### 2. COMPOSITION/INFORMATION ON THE INGREDIENTS

Identification of the preparation:	A Complex hydrolyzed metal salts solution, ionic and non-ionic of nature.
Chemical name:	Not applicable.

### 3. HAZARDOUS IDENTIFICATION

Most important hazards:

The product does not need to be labelled in accordance with EC directives or respective national laws.

Specific hazards:

Harmful in contact with skin, irritating to skin.

### 4. FIRST AID MEASURES

General advice:

Material is corrosive in the concentrated state. It is advisable to use equipment (gloves) when using the product as supplied. Keep away from children at all times. Store tightly closed in a well ventilated environment.

Inhalation:

Move to fresh air in case of accidental inhalation of vapours.

Skin contact:

Wash off immediately with plenty of water. Consult a physician if necessary.

Eye contact:

Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open during rinsing. Obtain medical attention if necessary.

Ingestion:

Rinse mouth (never give anything by mouth to an unconscious person). Do not induce vomiting

#### 5. FIRE FIGHTING MEASURES

This product is non-flammable.

#### 6. ACCIDENTAL RELEASE MEASURES

Personal precaution:

Use personal protective equipment. Keep people away from upwind or from spill/leakage.

Environmental precaution:

Do not let product enter drains.

Method of cleaning up:

Soak up with inert absorbent material. Shovel into container for disposal. After cleaning, flush away with water.

#### 7. HANDLING & STORAGE

Handling:

Use only in area provided with appropriate exhaust ventilation.

Storage:

Keep tightly closed.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical name:

Not applicable

National occupation exposure limits:

Not applicable

Engineering measures to reduce exposure:

Ensure adequate ventilation, especially in confined spaces.

Personal respiratory equipment:

No personal reparatory equipment normally required.

Hand protection:

PVC or other plastic material gloves.

Eye protection:

Face shield.

Skin & body protection:

Chemical resistant apron, protective suit, safety shoes/boots.

Hygiene Measures:

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL & CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Translucent aquamarine/green
Odour:	Faint - Of nitric acid
Boiling point/Range:	100°C @ 1 atm pressure
Melting point:	Not applicable
Flash point:	Not applicable
Relative density:	1.333 g/ml @ 25°C
Solubility:	Infinitely water soluble

## 10. STABILITY & REACTIVITY IN CONCENTRATED FORM

Stability:	Stable
Conditions to avoid:	Do not expose to high temperatures
Materials to avoid:	Alkaline materials, all bases.

Hazardous decomposition products:

None under normal use. Thermal decomposition can lead to release of irritating gases and vapours.

## 11. TOXICOLOGICAL INFORMATION

Material is safe for human ingestion in dilutions as recommended for intended use.

## 12. ECOLOGICAL INFORMATION

Material constitutes no ecological contamination in dilutions as recommended for intended use.

## 13. DISPOSAL CONSIDERATIONS

Waste from residues/unused products:

Dispose of as special waste in compliance with local and national regulations.

Contaminated Packaging:

Empty containers should be taken for recycling, recovery or waste disposal.

## 14. REGULATORY INFORMATION

Classification according to European directive on classification of hazardous preparations -  
90 / 492 / EEC

Contains

The product does not need to be labelled in accordance with EEC directive or national laws.

Symbol(s)

R-PHRASE(S)

S-PHRASE(S)

Note: The information in this safety data sheet is correct to the best of our knowledge, information and belief, at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.