



**IQ ECA**  
TECHNOLOGIES (PTY) LTD

---

# Water treatment with IQ ECA Technologies

---

## About IQ ECA Technologies

IQECA Technologies provides systems to produce onsite generation of Ano-lyte® and Catho-Lyte® solutions. Ano-Lyte® is an effective biocidal agent which effectively kills microorganisms including bacteria, bacterial spores, viruses, fungi, etc. whereas Catho-Lyte® have properties of a non-foaming mild detergent. These onsite products can be applied through various means to ensure biosecurity.

## Why treat water?

Water quality should always be pristine to all end users and therefore needs to be properly analysed and treated regardless of its source. The quality of water is affected by chemical, physical and biological characteristics. The most common parameters affecting the overall quality of water are, but not limited to, water hardness, iron/manganese content, hydrogen sulphide, pH, taste, colour and odour.

Treating water is a means to remove contaminants and undesirable components so that the water becomes more fit for its desired end-use. General treatment or disinfection is achieved by filtering the water as well as adding chemicals such as chlorine or its derivatives to kill or inactivate any harmful microorganisms which may be present in distribution systems.



**Table 1: Comparison of chlorine compounds used in water treatment**

DISINFECTANT	DESCRIPTION	ADVANTAGES	DISADVANTAGES
<b>CHLORINE</b>	Gaseous state	Efficient oxidant and disinfectant. Removes most contaminants in the water.	Strict requirements for transport and storage. Potential hazard if leaked. Forms non-organic by-products (chlorate and chlorite)
<b>SODIUM HYPOCHLORITE (CHORINE BLEACH)</b>	Liquid and granulated forms. Can be obtained on-site.	Effective against most microorganisms. Relatively safe during storage and use.	Ineffective against cysts (survival structure). Loses efficacy after long term storage. Potential danger of gaseous chlorine emission during storage. Forms tri-halo methanes (TMT)
<b>CHLORINE DIOXIDE</b>	Gas and liquid state under different conditions. Strongest oxidation among all the chlorine species.	Operates in low doses. Does not form compounds such as chloramines. Highly effective against most microorganisms as well as their survival structures.	On-site generation only. Forms chlorate and chlorite ions.
<b>ANO-LYTE® (HYPOCHLOROUS ACID)</b>	Product of electrochemical activation of a brine (salt water) solution in a membrane equaliser.	Strong disinfectant and oxidation agent. Highly effective against microorganisms and their related survival structures. No transport or storage complications. Significantly low levels of chlorine compounds, halogens and TMT. No toxic by-products such chlorites and chlorates.	Ventilation might be required to remove fumes if an acidic Ano-Lyte® is produced.



## Why choose Anolyte to treat water?

It is clearly evident based from the information listed in the table above that Anolyte is a safer alternative for water treatment. Since Anolyte is produced using salt, water and electricity, there are no harmful chemicals present in its composition. Anolyte is 100% green, eco-friendly, non-toxic and biodegradable.

For effective water treatment, “pre-treatments” have to be in place which positively contributes to the quality of water for end-users. Depending on the hardness, odour, colour, pH, chemical and microbiological composition, the overall quality can be maintained using filtration membranes, water softeners, etc. Once the proper standard of water quality is obtained according to the appearance, odour and chemical composition, Anolyte can then be dosed into the water supply and through the water lines. Dosing Anolyte into your water supply not only kills the harmful microorganisms, but also removes the biofilm collected by these microorganisms in water lines.

Choose **IQ ECA Technologies** for decontaminating your water for effective water treatment with our **Aqua-Lyte BIOSECURITY SYSTEM**. You can be sure of maintaining a high quality standard which is not only great tasting, but also free from water-borne pathogens known for causing infections affecting many individuals worldwide.

Contact us today for a tailored customised installation to meet your needs.



### Head office:

Unit 12, Urban Growth Park  
15 Jan van Riebeeck Drive  
Paarl

Phone +27 (0)21-3000 530

[www.iq-greensolutions.com](http://www.iq-greensolutions.com)

