

## ELECTROLYSED WATER PLANT

Electrolyzed water (EW) is a type of water that has undergone an electrolysis process which contains the active ingredient, hypochlorous acid (HOCl). This compound is effective against bacteria, viruses, spores and fungi.

During electrolysis, an electric current is passed through water, containing dissolved salts which causes chemical reactions to occur at the electrodes. These reactions result in the formation of two separate streams of water: acidic water (anolyte) at the anode and alkaline water (catholyte) at the cathode.

Anolyte: pH range 2.-8.5 used for sanitising purposes

Catholyte: pH range 10.5-11.5, used for cleaning purposes.

An estimated production ratio of 80% anolyte : 20% catholyte exists at a neutral pH

- Broad spectrum antimicrobial activity
- No antibiotic resistance
- Non-toxic and Non-hazardous
- Environmentally friendly
- Mimics the immune system process for eliminating germs
- Shelf life and stability
- Non-corrosive when used as instructed
- No stores of concentrated sanitiser are needed
- Major chemical is salt as the raw material required
- No residues – once the HOCl has been used, the solution decomposes back into diluted saline solution

### Applications:

#### On Farm

- As a post-harvest sanitiser for raw fruits and vegetables <60ppm
- As an equipment and cold room sanitiser <100ppm
- Management of diseases in the field and greenhouse
- Equipment cleaning and sanitation
- Seed decontamination
- Aquaculture, Hydroponics and Compost Safety

#### In Processing plant

- As a post-harvest, pre-process sanitiser for raw fruits and vegetables <100ppm
- As a microbial rinse for raw fruits and vegetables <60ppm
- As an equipment and room sanitiser <100ppm

Concentration and treatment level depend on the amount of organic matter present, contact time, pH, temperature, agitation and the presence of protective biofilms.



## ELECTROLYSED WATER PLANT

Each HOCl Generation Plant includes the following, appropriately sized components,

- Refurbished container, insulated with a connection point and lighting (can be customised)
- Pre-filter System (filter media, granular activated carbon, water softener)
- System Pressure Pumps
- Reverse Osmosis System
- Piping and Fittings
- Air conditioner (12000BTU)
- Control Panel

Incl. salt for 12 months of production (estimated)

Calculation of Salt: 7g per litre X Operating Hours X Days Per Year

Excl. 1 x buffer tank (5000lt), 1 x outside anolyte and 1 x catholyte holding tanks and stands as these are more affordably procured locally

CODE	DESCRIPTION	LTRS P/HOUR	ANOLYTE	CATHOLYTE
DFA EW120	HOCl Generation Plant 220V 14kW 30Amps	120	96	24
DFA EW200	HOCl Generation Plant 220V 20kW 30Amps	200	160	40
DFA EW300	HOCl Generation Plant 380V 20kW 35Amps	300	240	60
DFA EW600	HOCl Generation Plant 380V 25kW 45Amps	600	480	120
DFA EW1000	HOCl Generation Plant 380V 30kW 55Amps	1000	800	200



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## ON FARM IRRIGATION

Continually improving the shelf life and quality of fresh fruits, vegetables, meat and fish is important for maintaining a competitive edge in markets. Controlling microbial spoilage and human pathogens in foods starts at production. EW can be produced on-farm for application by spraying or via irrigation and aquaculture systems to reduce microbial pathogens in our water, soil and plants.

### Application for Anolyte

- Preventing infection and controlling diseases in a multitude of crops
- Phytophthora root rot in avocados and olive trees and hedging
- Phythium root rot in carrots, beetroots and ginger
- Pepper spot in avocados
- White rust in broccoli
- Rust in blueberries
- Sclerotinia in beans
- Blight and mildew in onions
- Powdery and downy mildew in lettuce and poppies
- Anthracnose in avocados on stems and fruit

### Application Methods of Anolyte

- Fertigation
- Trickle, Sprinklers, Laterals and Center Pivot Irrigation Methods | 750lts ≥ 1000lts per hectare
- Boom Spray Application | 10% to 100% of your water volume used per hectare
- Treating Irrigation Water from Rivers, Creeks, Dam, and Ponds | Organic Matter Load Volume
- Unfiltered water around 1% of water volume used
- Filtered water around 0.5% of water volume used
- Treating water for stock, piggery and poultry industries
- Reducing in-house diseases by treating the water and removing the biofilm from out of the water system

### Industries that use Anolyte EW water

- Food processing and equipment (pre and post-harvest)
- Vegetables and Fruits
- Poultry and Meat
- Seafood
- Cool room sanitising
- Water source sanitisation to produce potable water
- Sterilising refrigerated vans and containers

Anolyte is proven to be a high-end disinfecting and sanitising agent for post-harvest control of fruit and vegetable pathogens with unequalled versatility, durability, disease suppression, cost-effectiveness and safety for the workplace and the environment.



## TREATMENT TABLETS

An organic releasing agent that, when dissolved in water, releases hypochlorous acid (HOCl), an incredibly powerful disinfectant. HOCl is the same molecule produced naturally in macrophages to eliminate germs absorbed in our body. HOCl generated has a neutral pH because one of the active ingredients in NaDCC, the chlorine donor, is an organic molecule. As a result, the majority of it is still HOCl which is more effective. From this standpoint of the end-user, this means that HOCl can disinfect at lower quantities than bleach and chlorine and poses fewer health concerns.

A natural antimicrobial agent that is effective against a wide range of bacteria, fungi, and viruses. Offering a long-term bacterium-killing agent, in addition to the HOCl kill rate by adding a special combination of NaDCC and nanosilver in each of the effervescence tablets. Pathogens have been demonstrated to be susceptible to nanosilver. With quantum dotted nanosilver is 450 to 530nm in size, with millions of nanosilver particles thus making it the only NON-CYTOTOXIC nanosilver in the world.

Silver anti-bacterial technology has scientifically been proven to achieve a 99.9999% kill rate against 660+ disease-causing microorganisms. This is a natural reaction and time frames vary on kill rates of different types of Pathogens.

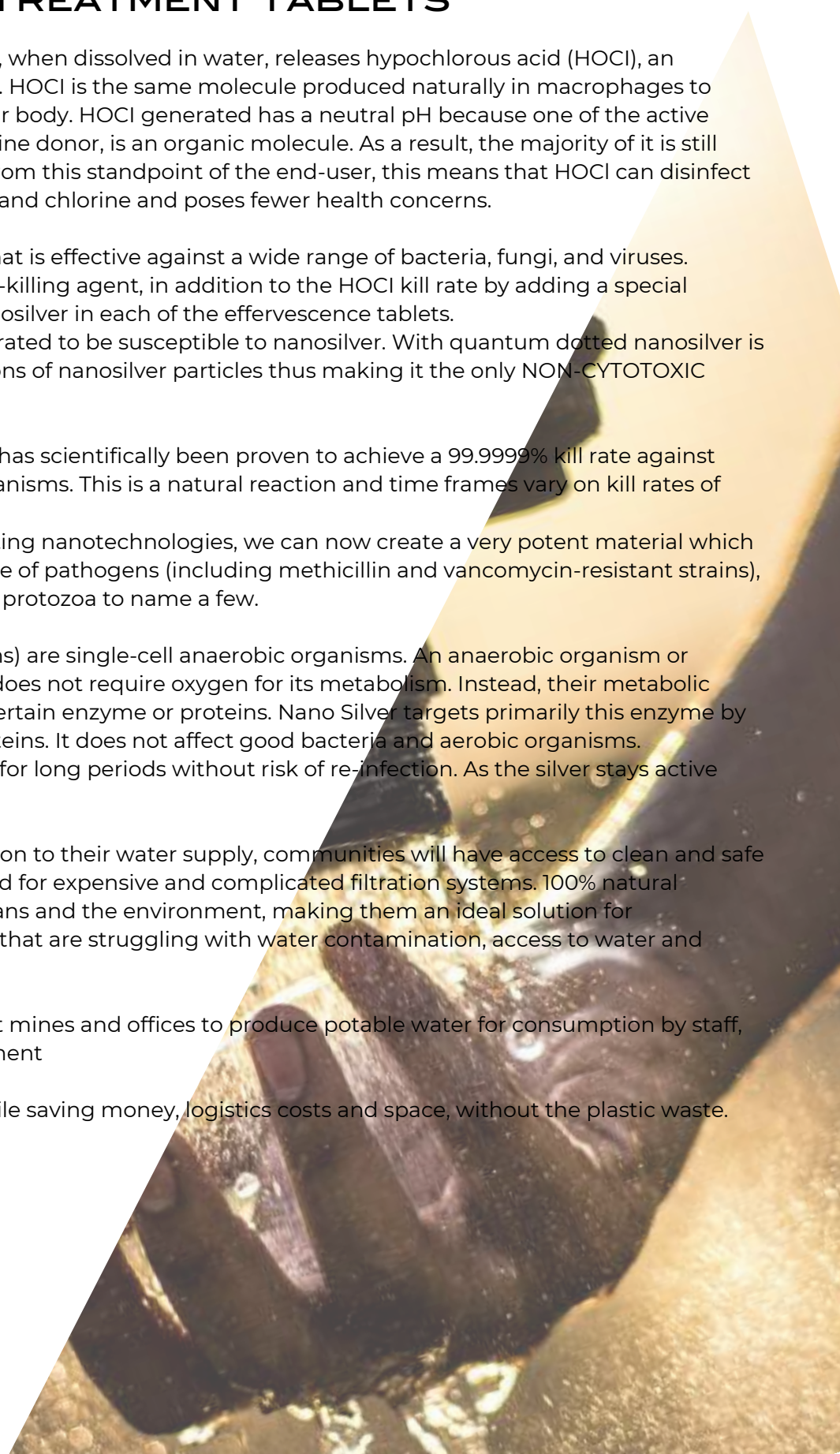
Through modern quantum dotting nanotechnologies, we can now create a very potent material which is effective against a broad range of pathogens (including methicillin and vancomycin-resistant strains), yeast, fungi, germs, viruses, and protozoa to name a few.

Most bacterial pathogens (germs) are single-cell anaerobic organisms. An anaerobic organism or anaerobe is any organism that does not require oxygen for its metabolism. Instead, their metabolic functions are dependent on a certain enzyme or proteins. Nano Silver targets primarily this enzyme by destroying these anaerobic proteins. It does not affect good bacteria and aerobic organisms. Allowing you to store the water for long periods without risk of re-infection. As the silver stays active indefinitely in any environment.

By simply adding this one solution to their water supply, communities will have access to clean and safe drinking water, without the need for expensive and complicated filtration systems. 100% natural products are safe for both humans and the environment, making them an ideal solution for communities around the world that are struggling with water contamination, access to water and general shortages.

This solution can also be used at mines and offices to produce potable water for consumption by staff, saving money and the environment

Provide safe drinking water, while saving money, logistics costs and space, without the plastic waste.



## TREATMENT TABLETS

CODE	DESCRIPTION	TABLETS P/BOTTLE	BOTTLE P/BOX	TREATMENT VOL/TABLET
DEW 32530T	Bulk Water Disinfectant HOCl Tablet 3.25g	30	24	500L
DEW 32580T	Bulk Water Disinfectant HOCl Tablet 3.25g	80	24	500L
DEW 325200T	Bulk Water Disinfectant HOCl Tablet 3.25g	200	12	500L
DEW 640T	Bulk Water Disinfectant HOCl Tablet 6g	40	12	1000L
DEW 6120T	Bulk Water Disinfectant HOCl Tablet 6g	120	12	1000L
DEW 42100T	Bulk Water Disinfectant HOCl Tablet 42g	100	1	10000L
DEW 42BULK	Bulk Water Disinfectant HOCl Tablet 42g	400	360	10000L

Minimum Order of 1 box per type

