

*Healthier Water  
Cleaner Water  
Safer Water*





## Key Tech electroChemical Corp.

### Key Message about Water

Water is not just simply a thing containing two Hydrogens and one Oxygen.

Water is a physical necessity for human life. Without it you die.

NO one knows ever the water's difference over each land.

Nothing replaces water. No device, app of smart technology can substitute for water. Even the biggest names in the IT industry like Apple, Samsung, Google or personalities such as Steve Jobs and Bill Gates didn't quench your thirst for water.

The IT industry didn't create aKua and Waterlox. They were born from a realization that safe water is essential for human health and wellbeing.

Water is not just simply a thing containing two hydrogen atoms bonded to one oxygen atom.

It can be so much more. That is what aKua delivers. The future of safe water.

No Matter where you are, No matter what business you linked with,

Water is a Key source to you, KTCC [Key Tech electroChemical Corp.] KTCC has the Key.

KTCC wants to share the Key with You.



## Background of KTCC's foundation

KTCC was established in November, 1999 by a venture-minded entrepreneur, EunSang "Phil" Kim, with the purpose of entering the North American and European markets, in response to the repaid growth of demand for microfiber products in the markets. In fact his business was not directly related to textile business when he founded the company. However, as he became aware of a new product called Electrolysis Water, he started exchanging ideas about the commercial value of the product with his overseas customers of microfiber-based hygiene and health products. In particular, he was interested in the fact that "Normal tap water could be converted into water with certain functions".

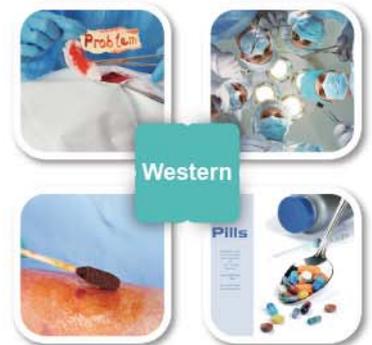
He then decided to directly introduce the product to overseas markets. The decision was lead to the establishment of Silver Clean Europe in the Netherlands and KNSC Europe GmbH in Germany. However, while electrolysis water was considered as "water" or "special water" in Korea and Japan, the "special water" was classified as medicine in many Western countries due to its antiseptic or cleaning effects. For this reason, the company had a hard time in North American and European countries as it had to sell drugs rather than water and, consequently, had been less successful than it expected.



Asian

### How differently Asian & Western respond against pathogens ?

Oriental medicine and Western medicine are same in that they respond to bacteria and viruses. However, their responding mechanisms are quite different. While Oriental medicine focuses on boosting resistance to diseases (as the immune system runs properly in a healthy body), Western medicine concentrates on immediate killing of germs. To that end, what people take in is an "antibiotic" and what people apply on the skin is a "disinfectant".



Western

Despite the success in the microfiber-Hygiene business, the electrolysis water business (Waterlox) of KNSC Europe GmbH is still experiencing a hard time. However, KTCC's focus on electrolysis water (or water technology) business has never changed with "confidence" that is electrolysis water is an absolutely necessary product for our daily life and a time of "globalization of electrolysis water business" and "one electrolysis device for each household" will come for sure. Venturesome mind, innovation and invention are inscribed in our DNA, showing who we are. This is the business we are pursuing.

### What mission KTCC states?

#### Our mission

One of our key mission is to help as many households and people as possible realize and enjoy the benefits that the equipment and water we developed and introduced.

### What Vision KTCC has?

#### KTCC's Visionary Goal

Our visionary sense to our Water Business is to Widen Waterlox World(3W). The primary goal and vision of our water business is the "globalization of Waterlox". The scientific principles of electrolysis water are well known. Unlike ordinary chemical products, it is considered as an environment-friendly product and can be manufactured at low cost. eKlean, which is the generating equipment of Waterlox, is easily operable at affordable costs. Its globalization and application to our daily life will be accelerated if customers' understanding of its structural and operational principles is expanded. KTCC is the pioneer that first developed non-membrane electrolysis system in 2001.



# Application

## Water Ionization

### aKua

alkaline ionized water

### aKua<sup>blue</sup>

Hydrogen Ionized Water

Hydrogen rich ionized water

## ElectroChemical Activating Device & System

### eKlean

eCo eCa Water generating device



eCa System ON-Board Cleaning Machine.

### Katalyte™

Catalyst + Electrolyte

Catalyst + electrolyte

## ElectroChemically Activation



Toxic free, Natural Biocide, Hypochlorous Acid



Pharmaceutical



Medical



Frozen Hypochlorous Acid Sanitizer



Public Health Hygiene



Fishery



Waterlox for pet



Waterlox for veterinary



Hygiene



Veterinary



Public health

### ecolox

eCo eCa technology base electrolyzed water



Hygiene life



Restaurant



agriculture

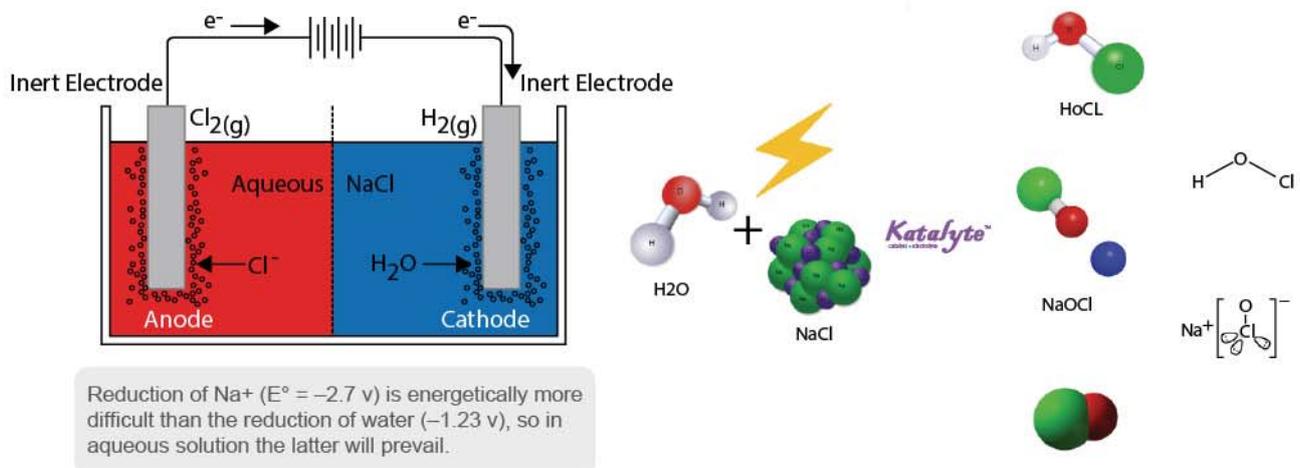


marine



## What is Electrolysis Activated Water?

Simply electrolyzed Water is re-clustered water as a result of electrolysis. "Ionized water" "alkaline water" "electrically activated water" "alkaline ionized water" "functional water" These are a few of the many names being used to describe the new generation of water use technology. Water technology has now progressed to ionization ( or activation ). A water ionizer (or activator) is a form of water technology that can actually alter the properties of the water. This alteration in water is creating "ACTIVATED" water, which is a different kind of water. This is not simply clean water, but also water that has acquired very different properties that give it powerful functionality or uses at different levels of alteration. Electrolysis Activated Water technology is available now and can significantly impact health, efficiency, operational effectiveness, environmental footprint and bottom line.



## How does KTCC's ECA system work?

The KTCC's ECA System is designed to use hassle-free, easy maintenance by adapting a non-membrane type cell into the system. Operating eKlean Systems in your house is as easy as ABC, as simple as ABC, All KTCC's eKlean System and device are designed for operation in-House, IN-Restaurant, IN-School, IN-Hospital, IN-Disaster....

## Any differences compared to other conventional, Old-fashioned ECA Systems?

Absolutely KTCC's ECA System & device are an advanced mechanism different to other old-fashioned look and huge machines in terms of size, design, as well as its engineering mechanism. We have developed and offered ECA System that can be run as easy as a coffee maker in house.

- \* "Electrolysis" refers to "Water Electrolysis" (WE)
- \* "Electrolysis ionized Water" (WI) is made for drinking purpose without adding any chemical additives.
- \* "ElectroChemically Activated Water" (ECA) refers to "ElectroChemically Activated Water" (ECA) which is electrochemically water created through an electrochemical reaction process with additives.
- \* The Electrolysis Water Generating Equipment consists of devices used for generating electrolysis ionized water and **electroChemically** activated water.
- \* Electrolysis water refers to all types of water generated through electrolysis processes including electrolysis ionized water and electrolysis activated water.
- \* KTCC refers to **Key Tech** electroChemical Corp.

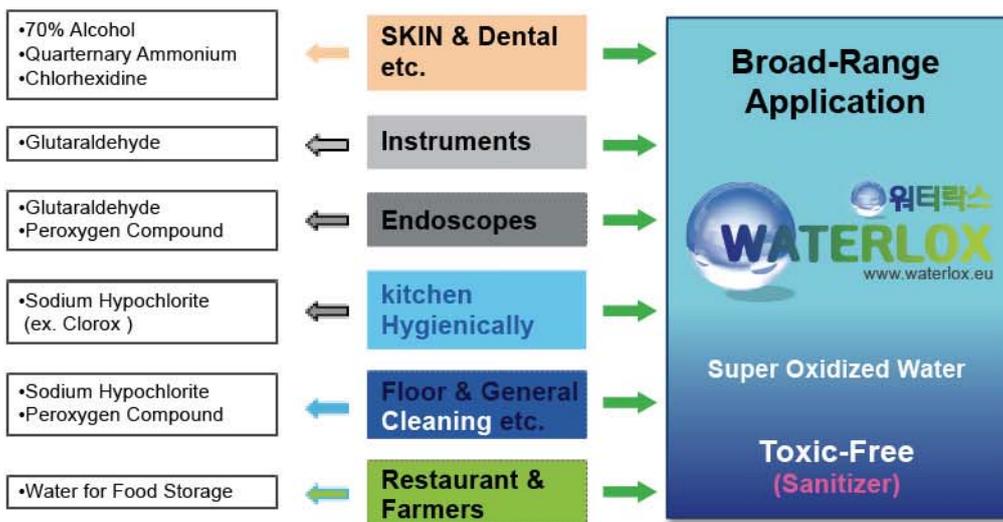


## How does the KTCC's ECA system & device work without a membrane?

It seems Impossible, but is equally possible and simple. That's the technology. We have created and we dream this technology popular. There is still a anode (positive electrode) and a cathode (negative electrode) electrode. But NO membrane which separate a chamber. Accordingly, the electrolysis takes place within the chamber. The NON-Membrane electrolysis results in single end solution. However, the end solution controllable by our technology.



## Broad Band - Applications





### What is the benefits from NON-Membrane Electrolysis?

The NON-membrane technology operates at efficient voltages, reduces energy cost and performs unique electrochemical reactions in a wide range of applications. The fact All water are different.

### What Green Chemical KTCC's ECA system produce?

In chemistry and manufacturing, electrolysis is a method of separating bonded elements and compounds by passing an electric current through them. The process is extremely useful for producing a variety of elements and compounds, including hydrogen, oxygen, chlorine, lithium, sodium, potassium, aluminum, sodium hydroxide, potassium chlorate, and aspirin.

### What is the Green Cleaning ABC? Environmental credentials!

The eKlean system & devices are extremely environmentally friendly in a whole range of ways, which combined make it probably one of the most inexpensively available GREEN Hygiene Solutions.

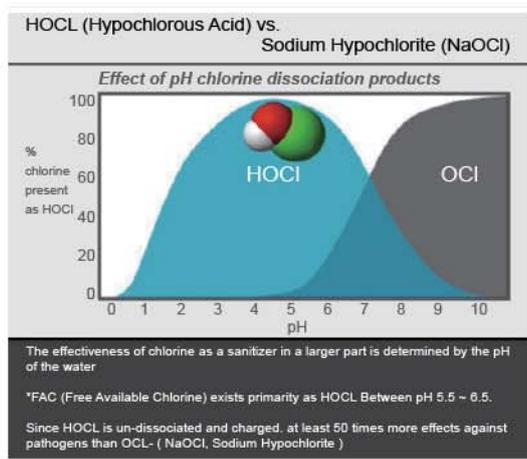
- \*electrochemically activated water ( ECA ), a cost effective green solution.
- \*wholly from low cost, sustainable, natural ingredients
- \*No packaging to dispose of the liquids.
- \*No transportation costs ( Point of production )
- \*NO Storage costs ( Point of production )
- \*Toxic-free in use and No Harsh chemical residue
- \*No contamination of the environmental
- \*Low energy consumption
- \*No batteries or harmful components
- \*Unit can be recycled
- \*Unused solutions back to water.





## Anolyte, Catholyte & WATERLOX ?

- Anolyte – an antiseptic sanitizer-like powerful Acidic Water, which generated from a membrane ECA machine. It is Strong acidic, fast-acting sanitizer kills all known bacteria & viruses on contact. Anolyte. A benign broad spectrum sanitizer gentle on equipment and people. Non-toxic, fully biodegradable, environmentally friendly, yet lethal on contact to all known pathogens.
- Catholyte : An alkaline pH solution (pH between 10.7 and 12.5) A low ORP solution. A effective detergent and cleaning agent. The combination of the reducing ORP in conjunction with the chemical constituents of Catholyte, produce an effective soil mobilizing and detergent effect which has been shown to be effective in removing organic residues as well as biological biofilms. Reducing microbe contamination along with anolytes. Used as detergents or cleaning agents in the food and beverage industry.

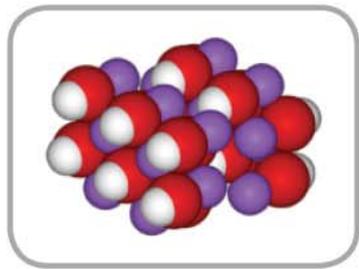


- WATERLOX Anolyte-like Neutral ElectroChemically Activated Water- Water is' neutral pH.- is a colorless transparent biocidal liquid with a slight chlorine smell. It consists predominantly of Hypochlorous acid (HOCl) and Hypochlorite ion (OCl-) which give it superior sporicidal and biocidal activity. Replace toxic chemicals and sanitize ecologically. Waterlox, Natural Anolyte is used wherever pH is important (corrosion) and where possible evaporation of active chlorine cannot be avoided. Waterlox, Natural Anolyte is very effective against bacteria and viruses and is mostly used to disinfect swimming pools, treat drinking water or other water sources. Waterlox, Natural Anolyte is also widely used to disinfect / sanitize objects (floors, walls, bench and sinks, equipment, tools, foodstuffs, etc.)

How to get Waterlox: Waterlox is commercially available as neutral electrolyzed water. It is generated from eKlean 50, eKlean 5010. [Membrane Free ECA Device & System]

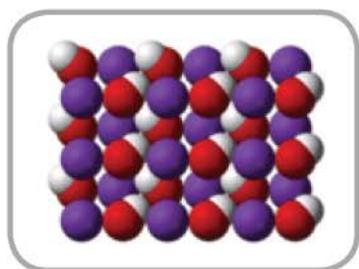
## Sodium Hydroxide [NaOH]

Repeatedly This process is called dissociation by electrolysis. The Na+ ions are attracted to the partially negatively charged oxygen atoms of the water molecules, and the Cl- ions are attracted to the partially positively charged hydrogen atoms of the water molecules. When this happens, the sodium chloride dissociates into individual ions, which are said to be in solution. Sodium chloride in water forms a sodium chloride solution. Because the sodium chloride solution can conduct electricity, it is an electrolytic solution, and NaCl is an electrolyte. The following diagram illustrates the dissociation of sodium and chloride ions when dissolved in water.



## Potassium Hydroxide [KOH]

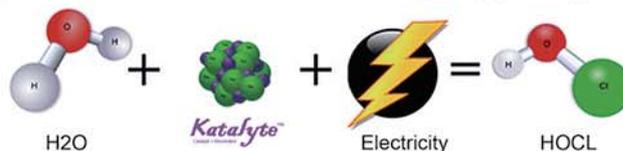
KTCC has developed technology for the production of potassium Hydroxide (KOH) using a continuous ion exchange process as well as Electrolysis. Thus the high cost associated with the current methods for the production of the carbonate, based on the use of potassium hydroxide that is produced by an electrolytic process, is greatly reduced. In the conventional process for the production of potassium hydroxide (KOH), potassium carbonate, that is generally produced via an expensive electrolytic process is reacted with carbon dioxide (CO2) to form potassium carbonate via the following reaction:





## “Nature’s Solution Commercialized”

### APPLICATIONS OF FUNCTIONALLY OPTIMIZED HYPOCHLOROUS ACID



KTCC is specialized in electroChemical-Technology-based biotechnology company developing cosmetic and pharmaceuticals based on the structural and functional properties of Hypochlorous acid.

### Application

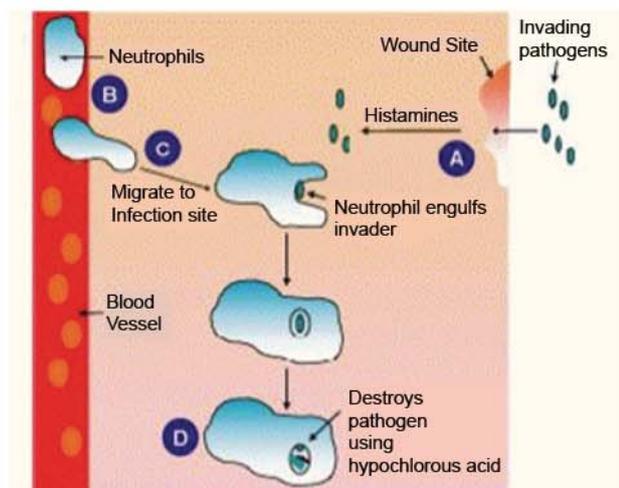
Pharmaceutical for Dermatology, Wound care, Natural Anti septic's, Food safety, ETC..

The human body produces a highly effective antimicrobial solution called **hypochlorous acid** to fight infection. White blood cells release this natural oxidant to fight invading pathogens. The **Hypochlorous acid** produced by the **human body's immune system**.

1. Reacts readily with a variety of microbial sub-cellular compounds
2. Interferes with their metabolic processes
3. Kills individual bacterium exposed within milliseconds

When an invading pathogen or infection threatens a human cell, the body's immune system responds by destroying the pathogen before it can harm the cell. The invading pathogens are engulfed by white blood cells called neutrophils by the process of **phagocytosis**. This antimicrobial process is called the **Oxidative Burst Pathway**.

### The Human Response



- A** When a wound breaks human skin, it creates a gateway for harmful pathogens to invade human cells.
- B** Neutrophils, which are a type of white blood cells, live in human blood vessels.
- C** When pathogens invade a human cell, neutrophils travel to the infection site to destroy the invading pathogen. The first step in this process is engulfing the pathogen.
- D** Once the neutrophil has completely surrounded the pathogen, it produces an oxidant, **hypochlorous acid**. **Hypochlorous acid** a natural biocide, meaning it kills organic material. Once produced by the neutrophil, it kills the bacteria almost instantly.

### Why does HOCL – Hypochlorous acid work so well ?

Germ surfaces carry a natural negative electrical charge. For that reason, Hypochlorite ion(OCL) is repelled in the vicinity of germ surfaces and they form a resistance to it. By using Hypochlorous acid (HOCL) at a pH of 5~6. It can easily penetrate those surfaces. Hypochlorous acid pierces the barriers of germs and resistance layers, destroying these microscopic agents of disease.



Hydrogen Ionized Water  
**aKua blue**

## The Science of skin care, Dermatology

Research by innovators in the field of **dermatology** combined with state-of-art technological advances introduce the first compact, portable delivery device generating fresh, hydrogen rich ionized water on demand through the complex process of water ionization and activation. Infused with our patented solution, aKua blue is revolutionizing while assisting in maintaining healthy skin function. Used by professionals and consumers for superior hydration, cleansing, rejuvenation and as an astringent. Successfully used on:

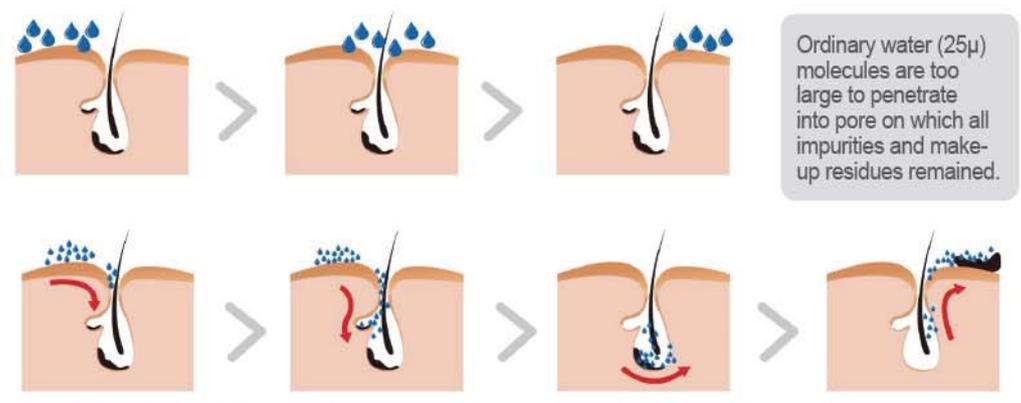
**Dry Scalp, Psoriasis, Eczema, diaper rash, acne, surface & Nail disinfectant...**as well as improving and maintaining healthy skin function.

## Hydrogen Ionized Water

### Rejuvenation & Anti-aging.

Hydrogen Ionized water, AKua blue, clinically proven - **astringent effect**  
Instantly age-defying, Defy your age naturally with the complete aKua blue skin care.  
Pure Natural Water Bio Skin Care, there is a new skin solution that suits your face

*How much time and money did you waste effortlessly to disguise your skin!  
Re-find ionized water's cleaning effect. It deserves to have it for your skin.*



**Super Nano size(0.005µ) ionized water molecules flow into pore and clean all impurities, make-up residues etc up.**

Water ionization and activation process through patented electrolysis is the process of ion association to creating super fine water molecules. These super fine ionized water molecules can penetrate to the deepest layers of the skin providing super hydration qualities.

## The words of the skin.

**What is truth is that this works. And it really does. It deserves its words of mouth.**

Remove make-up and impurities thoroughly while keeping the moistures on skin. The moisturizing ingredient, hydrogen rich clustered super Nano-size ionized water particles allows this moisturizing cleansing. The right choice and usage of Ionized water improves your skin condition.



## What Benefits & advantages You can get from KTCC?

Having explained so, KTCC is the only company in the world that possesses practical and experimental BIG data of each region through water and electrolysis water generating equipment business for a long period of time. Our experiences in the business said that organizations using water for business are exposed to a number of variables due to regionally different properties of water. The risk of trial and error will eventually result in the waste of time and money. Partnership with KTCC will reduce the occurrence of such risks.

## What is 3W program?

### 3W - Waterlox World Widen



Distribute with us.



Franchise with us.



Partner with us.

## KTCC's certification & Intellectual property



[www.waterlox.world](http://www.waterlox.world)

[www.medicleanatoz.com](http://www.medicleanatoz.com)

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