



# NPT

A “Key” to success is here.



A COMPANY YOU CAN TRUST

**NPT Co., Ltd.**

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**Nippon Power Technology**



## INTRODUCTION & NPT CAPABILITIES

Good morning, ladies and gentlemen. I would like to introduce myself. My name is Khalid Raza, President of NPT Co., Ltd.

We deeply honor to have this opportunity to come here for participate in the process of development of KINGDOM. We really appreciate the efforts by JETRO Japan.

**NPT** has a registered office in Japan, been in the business since 2001. We are offering a wide range of services and provide highly skilled manpower in the field of Power plants and other major industries.

### SERVICES:

#### ▪ Technical Services:

Covering all Kind of Mechanical, Electrical and Civil services

#### ▪ Consulting Services:

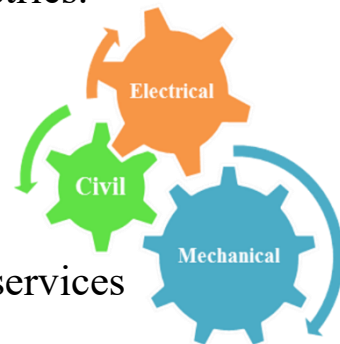
Project Management, Field Survey & Data collection.

#### ▪ New Product:

The E-Wash is an excellent Cleaning Agent, introducing, and innovation of the E-plan, which was so well-received and loved by our customers in Japan that we had complete faith in introducing its successor.

In this Presentation, you will find all the information about the E-wash, its attractive features and its benefits. We hope you will be pleased with this new product of yours.

This SAIW Water is for cleaning of Industrial parts, Houses, Schools and Hospitals.





## NPT TECHNICAL TEAM

### AREA OF EXPERTISE

- Erection, Installation & commissioning of Turbines & Generators
- Installation of BoP (Electrical & Mechanical) such as Hydraulic Steel Structure, OHT / Gantry Cranes and Switch yards etc.

From the planning to the completion, there is always a need of highly skilled manpower for a timely completion of any project.

We at NPT, not only provide a planned team on a project basis, but also can solve any kind of unexpected technical and/or management needs related to your project.



NPT TECHNICAL TEAM AT SITE

Client	Project	Location	Description	Period	Remarks
Voith Hydro	Chashma HEPP Unit# 8&2	Pakistan	23MW X1 Generator	2018 ~ 2022	Rehabilitation of Generator & Auxiliaries
Andritz Hydro	Rusumo Falls Hydro	Rwanda	Electrical Supervisor	2019 ~ 2022	Electrical Supervision
Voith Hydro	Kajaki HEPP	Afghanistan	33MW x3 Vertical Francis Turbine	2021 ~ 2022	Installation & Supervision for Turbine
Andritz Hydro	Nam Theun -1 HEPP	Laos	Quality Control	2018 ~ 2022	Quality Control



**NPT TECHNICAL TEAM**

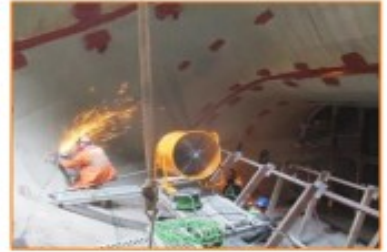
**Kajaki Hydro Power Project, AFGHANISTAN**



**Rusumo Falls HEP Project, RWANDA / TANZANIA**



**Nam Theun 1 HEP Project, LAO PDR**



**Sakuma Dai-2 HEP Project, Shizouka, JAPAN**



**Xayaburi HEP Project, LAO PDR**





## BUSINESS PLAN

Introducing maintenance business using super alkaline ionized water, Popularization of Super Alkaline Ionized Water, Super Alkaline Ionized Water has excellent sterilization, disinfection, and anti-corrosion effects, and spread it to general households for the purpose of saving water and preventing environmental pollution.

For research whether the demand for the planned business is as expected , Investigation of issues in promoting business, Building personal connections in anticipation of future business development and to find a company that is interested in our business and will consider using it.



Manufacturer: e-PLAN  
Product name: e-WASH  
Applications: Disinfection, cleansing, cleaning, and deodorizing  
Ingredients: Pure water (99.83%) Potassium hydroxide (0.17%)



## INTRODUCTION OF SAIW



e-WASH is produced by electrolyzing tap water.

This is accomplished using a proprietary positive ion-exchange membrane, with pure water from which impurities have been removed on the molecular level using a reverse osmosis (RO) membrane as the raw material and food additive-grade potassium carbonate as the electrolyte. The result is highly alkaline electrolyzed water with a high concentration of dissolved hydrogen. e-WASH consists of 99.83% pure water and 0.17% potassium hydroxide.

- It contains only a minuscule amount of dissolved potassium, e-WASH will not irritate young children's hands.
- The strong alkaline action provided by the large number of pH 12.5 hydrogen ions it contains delivers exceptional cleansing effects on par with synthetic surfactants, allowing it to emulsify oils and fats.
- It also provides disinfecting benefits that render noroviruses and bacteria that cause food poisoning inactive, it simultaneously delivers cleansing and disinfecting action that is critical in preventing infection.

e-WASH is a sustainable product that will not irritate your hands, even when used repeatedly daily.

- Patent No. 4967050 (“Device for Producing Electrolyzed Ion Water”)
- Patent No. 6057267 (“Method and Device for Producing Electrolyzed Ion Water”)
- Patent No. 6448043 (“Method and Device for Producing Electrolyzed Ion Water”)

## PRODUCT PROFILE

Cleansing and disinfecting with e-WASH

### Blind spots associated with disinfectants

Alcohol-based antiseptics and bleach-based disinfectants are used regularly to prevent viral infection. These products will fail to deliver the intended benefits if their use is not informed by an accurate understanding of how they function.



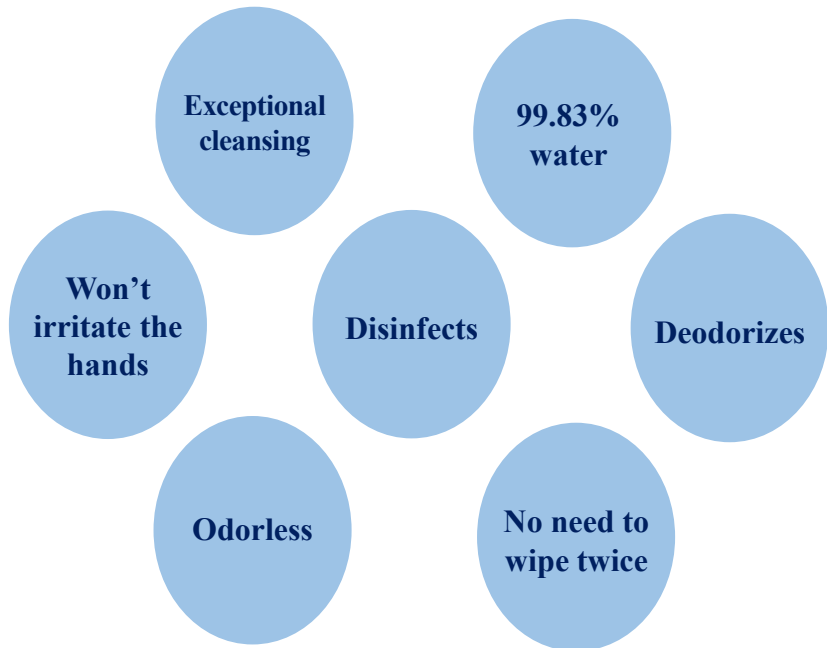
- If the product lacks the ability to remove dirt such as the proteins that coat bacteria, it won't reach the bacteria.
- Alcohol is less effective if used on wet hands.
- Many products lose their effectiveness if exposed to UV rays or sunlight.
- Sustained use can lead to skin damage and unpleasant odors.



## PRODUCT PROFILE

Cleansing and disinfecting with e-WASH

**e-WASH is easy on the hands despite its cleansing and disinfecting power.**



- Exceptional cleansing power removes the dirt and oil that cover bacteria and viruses.
- e-WASH remains an effective disinfectant when used on wet fingers.
- Spray bottle container ensures the product remains effective over the long term.
- e-WASH can be used with peace of mind, even if it will get onto baby's fingers and skin.

### e-WASH FEATURES

Super Alkaline Ionized Water™ in this document is the raw materials of e-WASH.™





## SDGs GOAL



Based on E-Plan's vision of a future society we wish to achieve where "everyone is welcome to gather at the fountain of super alkaline ionized water (e-WASH) and fetch water to take home anytime and anywhere" and where "everyone can enjoy a healthy and happy life."

Washing hands, gentle on the skin (passed 24-hour patch test), mouthwash. Disinfecting spray for masks, disinfecting laundry.

- People and environmentally friendly e-WASH removes 90% of stains.
- You can contribute to the **SDGs** without even thinking about it just by using it every day!
- e-WASH can be used with **peace of mind**, even if it will get onto baby's fingers and skin.



Safety and Security



Cleaning Power



Sterilizing Power

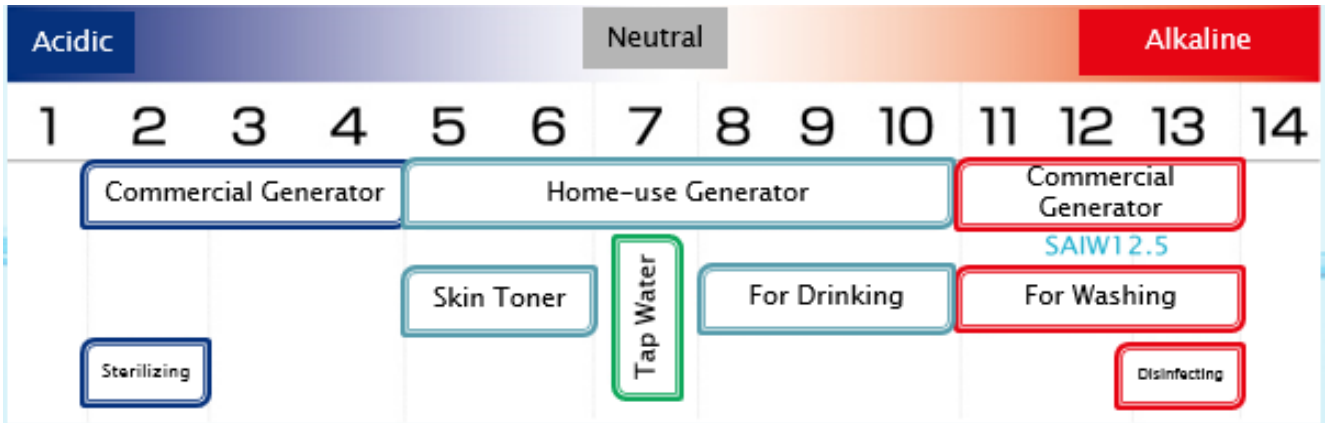


## WHAT IS THE “SUPER ALKALI ION WATER”?

- 1 It is safe because the element's 99.83% is water
  - No surfactants or chemical substances used
  - No BOD or COD used
  - No color, odor, or irritants
  - No chance of catching fire or exploding
- 2 High cleaning ability
  - Breaks down fats and oils, creating an emulsion
  - High permeability which spreads out
  - Much less rinsing as it does not bubble
- 3 Strong sterilization filtration
  - Sterilizes norovirus, legionella. E. Coli etc.
  - The effect is elongated as it does not react with organic compounds
- 4 Strong rust prevention effect
  - Prevents oxidization and metallic corrosion
  - The effect of passivation continues the effect of rust prevention
  - Prevents each processed water to turn ad. It also has an effect of deodorization

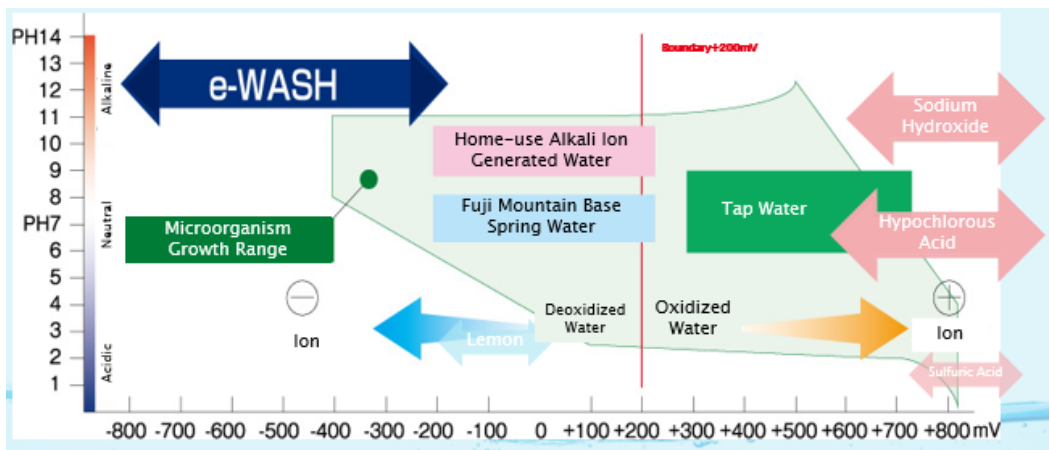
**ANTIBACTERIAL EFFECT** Kills food poisoning bacteria, viruses, etc.

pH 12.5



pH refers to hydrogen ion concentration. A pH of 1 to 6 is acidic, 7 to 8 is neutral, and 9 to 14 is alkaline. The pH of Super Alka line Ionized Water is 12.5, making it a strong alkaline, but it does not contain dangerous alkalis like caustic soda. Rather, it is a special ionized water containing many negative electrons. It will not cause chemical burns or irritate your skin.

**Oxidation-reduction potential (ORP) and Hydrogen ions (pH)**



Bacteria and viruses can only live and reproduce in the conditions for microbial life, so once they make contact with Super Alkaline Ionized Water, they are killed or rendered inactive.



## Example uses of Super Alkaline Ionized Water

INDUSTRIAL USAGE	<ul style="list-style-type: none"><li>•Cleaning metal parts used for cutting, pressing, etc.</li><li>•Dilution water for water soluble machining fluid.</li><li>•Preventing putrefactive odor of paint booth rinsing water.</li><li>•Preventing spoilage of aluminum die casting cooling water.</li><li>•Preventing metal rusting.</li></ul>
AGRICULTURE AND FISHERIES	<ul style="list-style-type: none"><li>•Pest control for garlic, leafy vegetables, and root vegetables.</li><li>•Adjust pH of soil. Disinfect seeds.</li><li>•Preserve freshness and prevent oxidation/decay of crops.</li><li>•Increase yield. Preserve freshness of seafood.</li></ul>
SERVICES	<ul style="list-style-type: none"><li>•Reduce wastewater.</li><li>•Maintain condition of equipment.</li><li>•Linen factories.</li><li>•Pet shops. Bathing facilities.</li><li>•Hotels, inns, other accommodations, camps, laundries, etc.</li></ul>
INFECTIOUS VIRUSES	<ul style="list-style-type: none"><li>•Washing hands, gentle on the skin (passed 24-hour patch test), mouthwash.</li><li>•Disinfecting spray for masks, disinfecting laundry.</li><li>•Disinfecting, cleaning, and deodorizing at day care and inpatient wards.</li></ul>



## Example uses of Super Alkaline Ionized Water

NURSING AND MEDICAL CARE	<ul style="list-style-type: none"><li>•Disinfecting, cleaning, and deodorizing at day care and inpatient wards.</li><li>•Reducing workloads, addressing offensive odors, washing clothes, disinfecting/deodorizing,</li><li>•And preventing spread of viruses at nursing care facilities.</li><li>•Cleaning and disinfecting at hospitals.</li></ul>
FOOD INDUSTRY	<p>(•Cleaning cooking utensils, equipment, and machinery to disinfect, prevent spoilage, (•Prevent food poisoning, and kill norovirus at conveniences stores and manufacturing facilities for lunch boxes, daily dishes, sweets, etc. (•Disinfect fruits and vegetables and remove pesticides. (•Clean dishwashers and prewash dishes. (•Remove oily grime from oil filters, deodorize grease traps, clean, and disinfect napkins and cloths. (•Clean and disinfect conveyors, floors, etc. as a substitute for alcohol (inactivation of viruses, gentle on the hands).</p>
DAILY LIFE	<ul style="list-style-type: none"><li>•Kitchens and refrigerators.</li><li>•Washing dishes, removing pesticides from vegetables, meat, and seafood, disinfecting them, and preserving freshness.</li><li>•Washing clothes (without synthetic detergent or softeners), cleaning bathtubs and showers, cleaning rooms, deodorizing/disinfecting, caring for pets, preventing rough skin.</li></ul>



# Clean and disinfect without chemicals

Gentle on the hands!

# or chemical compounds!

Take full advantage of the power of water

## We conduct a wipe test to compare the cleaning power of Super Alkaline Ionized Water and a General disinfectant spray

The ATP 1 wipe test is a method of checking for the presence of grime that is invisible to the eyes, with a numerical value assigned. It is used to test the contamination/cleanliness of equipment used in food factories, medical facilities and so on. It is also used to inspect surfaces that are frequently touched to check for proper hand washing.

\*1 ATP: Adenosine triphosphate

### Door handle test



#### Test method

- A spray was applied twice.
- The surface was wiped several time with a paper towel.
- Dirt was measured by performing an ATP wipe test.

Product	Before cleansing	After cleansing	Residual rate	Judgment
Bleach-based spray	2,472 RLU	514 RLU	20.79%	Fail
e-WASH	3,025 RLU	32 RLU	1.06%	Pass

Target value: Up to 199      Caution: 200 to 399      Fail: 400 or more \*Values provided for reference purposes.

### Refrigerator (interior) test



#### Test method

- A spray was applied twice.
- The surface was wiped several time with a paper towel.
- Dirt was measured by performing an ATP wipe test.

Product	Before cleansing	After cleansing	Residual rate	Judgment
Alcohol-based spray	98,999 RLU	11,565 RLU	11.68%	Fail
e-WASH	11,565 RLU	229 RLU	1.98%	Pass

Target value: Up to 499      Caution: 500 to 999      Fail: 1,000 or more \*Values provided for reference purposes.

## Test performs

Test conducted at Japan Food Research Laboratories

1. Norovirus inactivation test
2. E. coli bactericidal
3. Legionella pneumophila bactericidal
4. Salmonella bactericidal
5. Influenza Type A inactivation test
6. Human herpesvirus inactivation



### Watch band cleaning test

The water instantly penetrates even minutes gaps, removing the grime and oils stuck to the metal surfaces.



### Washing fruits and Vegetables

Quickly washes off chemical residue and wax from fruits and vegetables that tap water cannot and restores vitality.



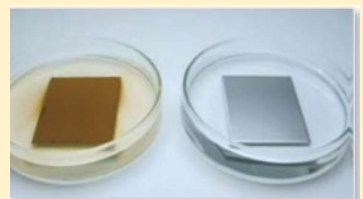
### Oil emulsification and dispersal test

e-Wash emulsifies oil in the water without the use of chemical surfactants. (The stable emulsion reaction provides excellent cleaning.)



### Steel anti-rust experiment

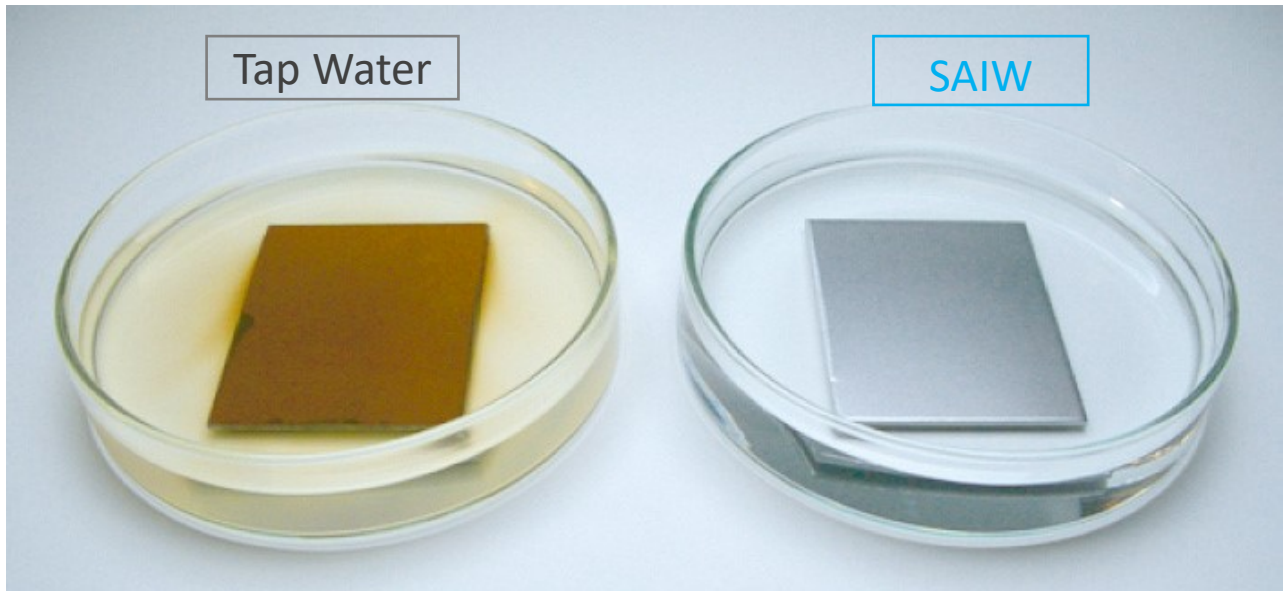
Steel placed in super alkaline Ionized Water even for extended periods of time does not rust, because this product has a pH 12.5 and does not contain chlorine ions. Even after the steel dries, the passive film that forms on its surface provides anti-rust protection for from several days up to several weeks.





## RUST PREVENTION

Super Alkali Ion Water does not have any acidic power and does not include any chlorine ions. Therefore, it will not form any rusts. Due to the effect of passivation, prevention of rust can last until a few weeks after cleaning.



## CLEANING TEST

Vegetables/Fruits  
Washing test

It safely removes any pesticides, wax, impurities and saprophytes.





## MAJOR USAGES (INDUSTRIAL)



1. Reduced the use of chemicals and detergent for water washers
  - No need for alkali washing and prevention of rust
  - Decrease in washing time and time
2. Prevention of rust of grinding lubricant
  - Prevention of rust due to the alkalization of grinding lubricant
  - Decrease in sludge
3. Usage in cooling water
  - Suppresses oxidization of cold water, cleans pipes, suppresses bad odor, inhibits reproduction of legionella
4. Improving the environment for coating booths (water wash)
  - Suppresses bad odor, easier to collect the sludge, cares about the environment and residents, increase safety for workers (Removes the caustic soda or any form of chemicals)
5. Others Washing and sterilizes the factory
  - There's no additional washing, and
  - Sterilization and deodorization of automobiles No bubbling and no odor, with no need to double rinse
  - Sterilizes and removes odor from helmets, worker clothes, shoes, gloves
  - Cleans the toilet, office, office kitchen



Above image is an example



# MAJOR EFFECTS OF IMPLEMENTING



## 1. DECREASE COST

- Decrease the use of detergents and chemicals (Just swap to SAIW)
- Remove any burden in using the detergents and chemicals
- Decrease the cost (washing water, drainage, time)

## 2. INCREASED SAFETY AND BETTER ENVIRONMENT

- No physical burden for the workers
- Inhibit use of chemicals that burden the environment
- Decrease CO2 production



Above image is an example

## 3. CONTRIBUTING TO SOCIETY

- Considerate towards the surrounding environment
- Decreased burden for rivers and sewage facilities

Human and eco-friendly e-WASH can be used in different situations.

Cleaning effect

Sterilization effect

Deodorization effect

Antistatic effect

Usage										
	Cigarette Resin	Steel Furniture	Glass Window	Kitchen Area	Fridge/Rice cooker/Microwave	Cutlery	Aircon	Computer/TV	Telephone	Toilet
	Undiluted Solution ~ 10 times concentrated									
Usage										
	Bathroom	Kitchen	Watch/Jewelry	Precious Metal	Car	Pet	Clothing	Shoes	Toys	
	Undiluted Solution ~ 10 times concentrated									



## BLUE EARTH Environmental Washing System

A large amount of Super alkaline ionized water heated to 50°C to 60°C is sprayed onto the parts from three-dimensional to wash away Oil and contaminants. All Dirt is removed with a back filter, and floating oil is collected with an oil separator which reduce industrial waste.

Work carried by this machine will be cleaned, drained and dried and returned to the work set.



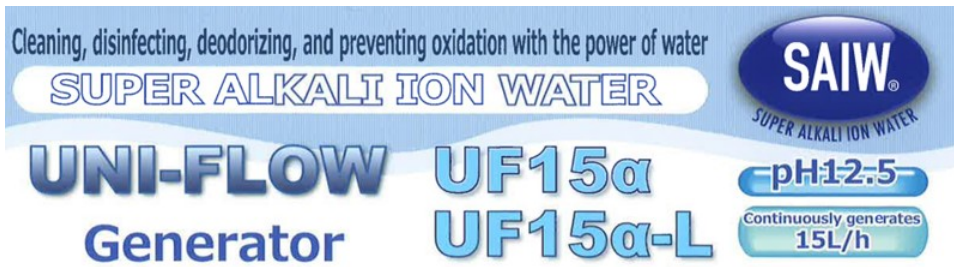
UNKIDS allows you to make Super Alkaline Ionized Water when you want it in the amount you need. It makes only alkaline ionized water optimized according to use.

You can make environmentally friendly SAIW with three different pH levels.

### **CHARACTERISTICS OF GENERATED WATER**

- (1)Excellent cleaning power
- (2)colorless, odorless, and non-irritating
- (3)disinfecting/deodorizing
- (4) Anti-rust/anti-corrosion
- (5) prevents static electricity
- (6)no environmental pollution
- (7)easy-to-rinse/conserves water





Super Alkaline Ionized Water is strong alkaline ionized water with a pH boosted to 12.5. Despite being 99.9 percent pure water, it offers cleaning and disinfecting power equal to or better than synthetic detergents and disinfectants. With a pH (a measure of the concentration of hydrogen ions) of 12.5, this product is 100,000 times more alkaline than regular tap water. However, it does not contain harmful alkalis like caustic soda. Instead, this special ionized water is full of electrons, so it will not cause chemical burns or otherwise irritate your skin. Because Super Alkaline Ionized Water has powerful oil-degrading capabilities and kills viruses and bacteria, it is used widely in various applications.

### CHARACTERISTICS OF UF-15A

1. Generates no acidic water-only strong alkaline ionized water
2. Generates no chlorine gas, so you can install it anywhere
3. Simple, straightforward operation
4. The panel switch screen tells you when to add POCA (the electrolytic auxiliary agent)
5. POCA is added directly via the fill port on top of the generator
6. Compact and lightweight, this unit is easy to install in kitchens and other small spaces
7. Made of stainless steel and plastic, it resists corrosion and will not rust
8. The panel tells you when to replace the filter and if there is a water outage or other abnormality



POCA  
Electrolytic auxiliary agent  
food additive



- 1 POCA fill port
- 2 Control panel
- 3 Generated water outlet

# 90% of grime comes off using only water

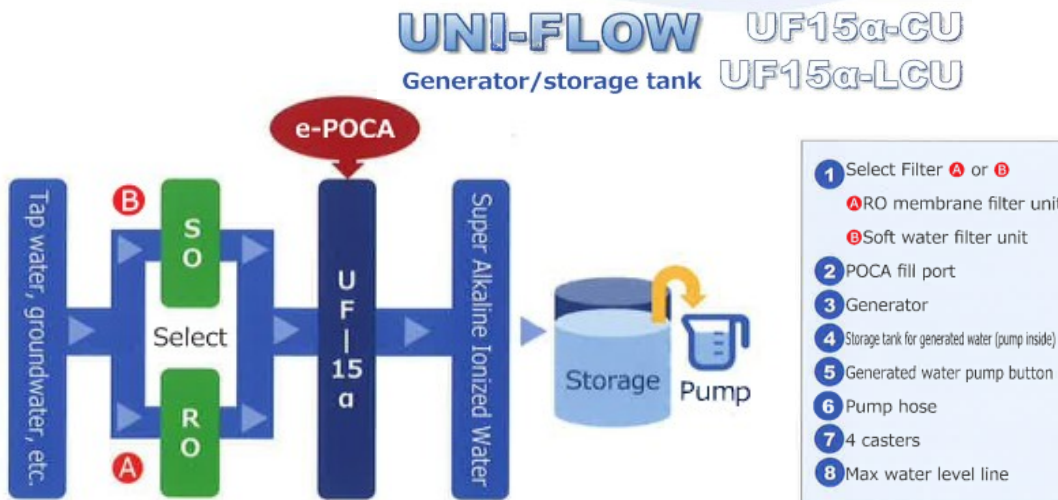
Super Alkaline Ionized Water

pH12.5

Super Alkaline Ionized Water is a registered trademark for the strong alkaline ionized water generated by the strong alkali water generating system manufactured by E-Plan Co., Ltd.

## DIFFERENCES WITH REGULAR ELECTROLYZED WATER GENERATING SYSTEMS

- Does not generate acidic water
- Does not generate harmful chlorine gas
- No corrosion of peripheral equipment when generating water
- Generates strong alkaline ionized water with a pH of 12.5 or higher
- Highly antibacterial, deodorizing, and preventive of decay
- Long shelf life (shelf life of one year or more)
- Highly rust-preventive with no chloride



- Select Filter A or B
  - A RO membrane filter unit
  - B Soft water filter unit
- POCA fill port
- Generator
- Storage tank for generated water (pump inside)
- Generated water pump button
- Pump hose
- 4 casters
- Max water level line



Model	Power Supply	Power	Generating capacity	W	H	D	Weight
UF 15a UF 15 a-L	100V-240V	400W	Approx. 15L/h	460mm	1640mm	610mm	60kg



## Q & A

# Super Alkaline Ionized Water pH of 12.5



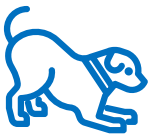
Is Super Alkaline Ionized Water dangerous?

Regular strong acidic water and strong alkaline water both contain more than 5 percent hydrochloric acid and caustic soda. For that reason, they are considered dangerous, highly concentrated solutions, and require caution during handling. Super Alkaline Ionized Water, however, is made using a special electrolytic process which ensures that even with a strong alkaline pH of 12.5 it has a very low concentration of potassium hydroxide—just 0.17 percent. That means Super Alkaline Ionized Water does not irritate your skin and is safe for both humans and the environment. Solutions made by dissolving potassium hydroxide in tap water at a concentration of 0.17 percent have none of the cleaning, antibacterial, anti-rust or other properties required of alkaline ionized water.



Is there any problem if it gets on my bare hands?

Regular alkaline ionized water generators use sodium chloride (NaCl salt) for electrolysis. This generates acidic water and chlorine gas. The alkaline ionized water generated also contains dissolved salt. This salt corrodes metals during cleaning and irritates human skin. Super Alkaline Ionized Water, on the other hand, uses potassium carbonate (K<sub>2</sub>CO<sub>3</sub>) for electrolysis. The salt concentration is zero, and the potassium hydroxide concentration is just 0.17 percent, so it will not cause steel to rust otherwise corrode. It also does not irritate human skin, including the skin of infants.



What if my pet or child licks a surface I've cleaned with Super Alkaline Ionized Water?

The electrolytic potassium carbonate\* used in Super Alkaline Ionized Water is a food additive and is commonly found in the alkalized water used to make ramen. This product contains no surfactants, chemical compounds or other harmful ingredients, so it's safe even if your pet or child licks the floor, carpet, couch or other furniture after you clean it.



## Q & A

### Super Alkaline Ionized Water pH of 12.5



Is Super Alkaline Ionized Water safe for the environment when goes down the drain?

When you put cleaning agents with high concentrations of caustic soda down the drain, they can kill organisms living in rivers and the ocean. Surfactants also pollute rivers and can create sludge buildup in the ocean. Super Alkaline Ionized Water will not pollute rivers and has no impact on aquatic organisms. When diluted, its pH becomes neutral, turning it into regular water. If you use it to clean oily surfaces, however, separate the oil from the water first before putting the waste down the drain.



How is this product different from alkaline ionized water for drinking?

The difference is in the pH level. The pH of alkaline ionized water meant for drinking and sold in plastic bottles is between 8 and 9.5, while the maximum pH produced by household alkaline ionized water generators is around 10.5. This pH level is insufficient for cleaning, disinfecting and deodorizing. For reference, if you were to dilute Super Alkaline Ionized Water with its pH of 12.5 in tap water (pH of 7) by a hundred times, the pH would be reduced to 10.5. To put it another way, Super Alkaline Ionized Water has a hundred times the power of water from household alkaline ionized water generators.

Does it do anything to painted surfaces, plastic, rubber, etc.?

Super Alkaline Ionized Water will not affect paint, resin, rubber or other such materials. You can also use it on steel, stainless steel and other metallic surfaces. One exception is aluminum, which does not react well to acidic or alkaline substances. If Super Alkaline Ionized Water is left on aluminum for extended periods of time, parts that are not surface-treated may change color. You can use it for around five minutes to clean aluminum window sashes or wheels without any problems, however.



## AUTHORIZED DEALERSHIP

We have acquired the authorized dealership form the E-Plan Co. Ltd for 5 year, and in this connection, we would like to

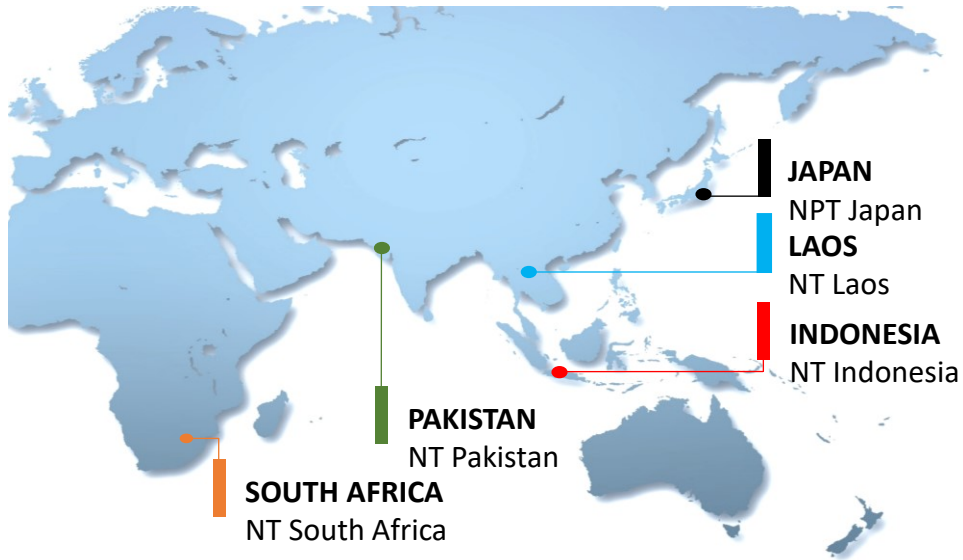
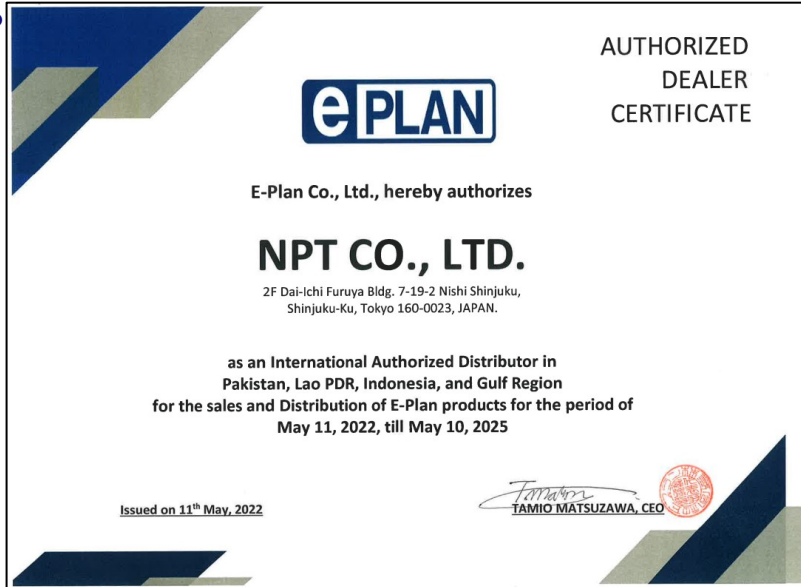
## GLOBAL PRESENCE

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### Jakarta (INDONESIA)

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### Pretoria (SOUTH AFRICA)

#### Nippa Tech SA

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