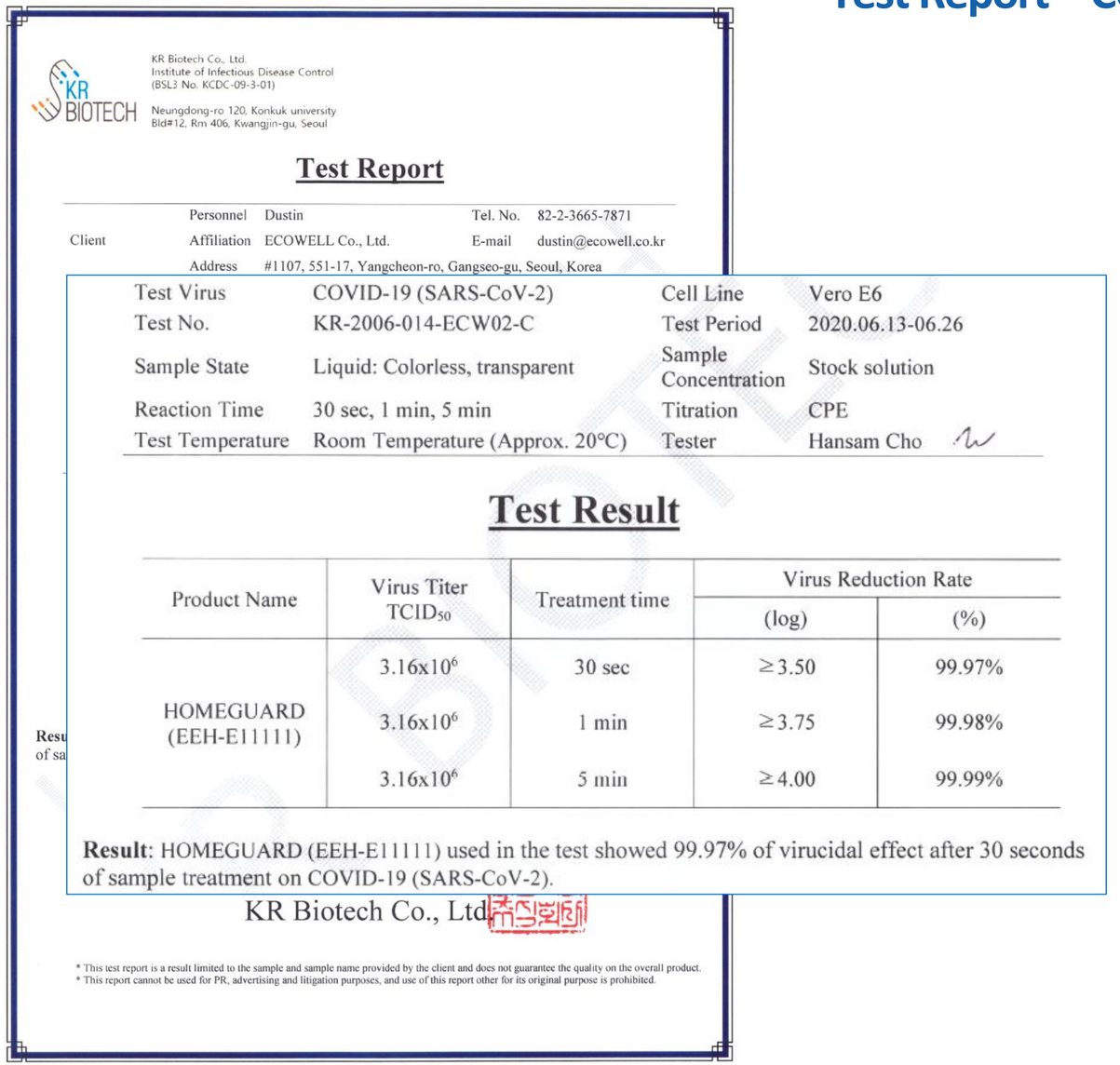
ecowell

HOME GUARD

Perfect Sterilizing & Cleaning
WaterMaker

Product Information

Test Report – COVID-19



KR Biotech Co., Ltd.
Institute of Infectious Disease Control
(BSL3 No. KCDC-09-3-01)
Neungdong-ro 120, Konkuk university
Bld#12, Rm 406, Kwangjin-gu, Seoul

Test Report

Client	Personnel	Dustin	Tel. No.	82-2-3665-7871
	Affiliation	ECOWELL Co., Ltd.	E-mail	dustin@ecowell.co.kr
	Address	#1107, 551-17, Yangcheon-ro, Gangseo-gu, Seoul, Korea		

Test Virus	COVID-19 (SARS-CoV-2)	Cell Line	Vero E6
Test No.	KR-2006-014-ECW02-C	Test Period	2020.06.13-06.26
Sample State	Liquid: Colorless, transparent	Sample Concentration	Stock solution
Reaction Time	30 sec, 1 min, 5 min	Titration	CPE
Test Temperature	Room Temperature (Approx. 20°C)	Tester	Hansam Cho

Test Result

Product Name	Virus Titer $TCID_{50}$	Treatment time	Virus Reduction Rate	
			(log)	(%)
HOMEGUARD (EEH-E11111)	$3.16x10^6$	30 sec	≥3.50	99.97%
	$3.16x10^6$	1 min	≥3.75	99.98%
	$3.16x10^6$	5 min	≥4.00	99.99%

Result: HOMEGUARD (EEH-E11111) used in the test showed 99.97% of virucidal effect after 30 seconds of sample treatment on COVID-19 (SARS-CoV-2).

KR Biotech Co., Ltd.

* This test report is a result limited to the sample and sample name provided by the client and does not guarantee the quality on the overall product.
* This report cannot be used for PR, advertising and litigation purposes, and use of this report other for its original purpose is prohibited.

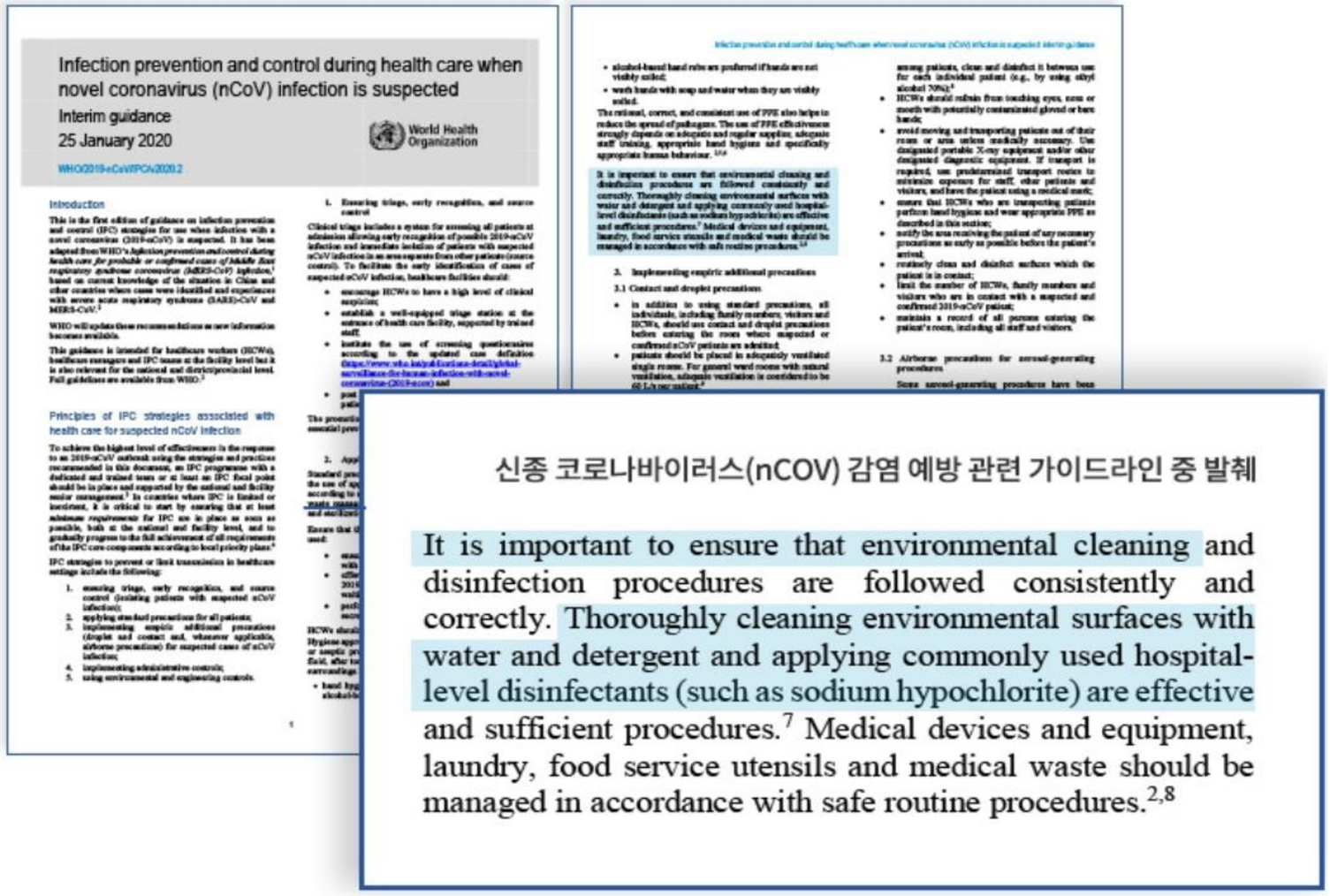
For the first time, we have obtained the test report for the proof of efficacy to COVID-10 (SARS-CoV-2). The laboratory that issued this report is specialized in virus inactivation and certified as an excellent laboratory for safety management by the Ministry of Science and ICT of the Republic of Korea.

The test for COVID-19 conducted by the laboratory above used electrolyzed water generated by Homeguard and confirmed that the novel coronavirus is inactivated by 99.9% or more within 30 seconds of contact.

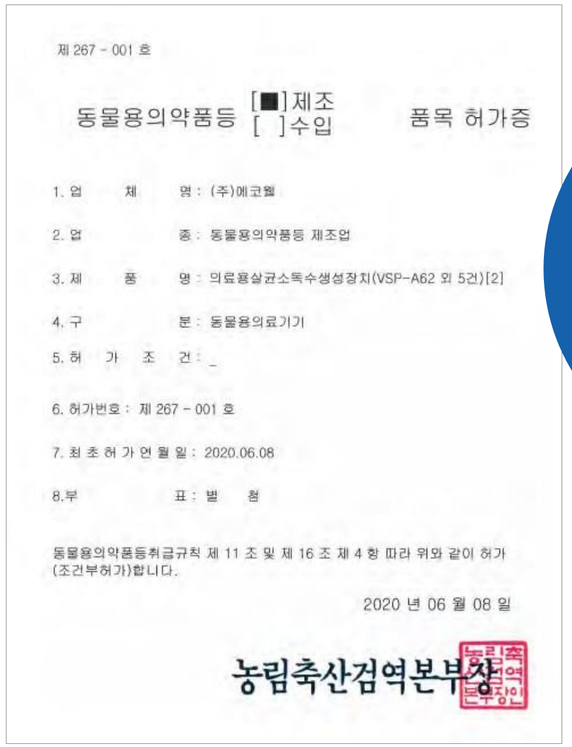
As a representative brand of Electrolyzed Water Maker, Ecowell is focusing on research and development with engineers at its R&D center, feeling a sense of responsibility and mission. In addition, we continue to study how electrolyzed water makers can be used safely by anyone, not just for convenience.

WHO Guideline to cope with COVID-19

Sodium Hypochlorite is the best solution to repel coronavirus!



Approval – Medical Equipment for Animals



제 267 - 001 호

동물용의약품등 [■]제조 [ ]수입 품목 허가증

1. 업 체 명 : (주)에코웰

2. 업 종 : 동물용의약품등 제조업

3. 제 품 명 : 의료용살균소독수생성장치(VSP-A62 외 5건)[2]

4. 구 분 : 동물용의료기기

5. 허 가 조 건 : _

6. 허가번호 : 제 267 - 001 호

7. 최 초 허 가 연 월 일 : 2020.06.08

8.부 표 : 별 첨

동물용의약품등취급규칙 제 11 조 및 제 16 조 제 4 항 따라 위와 같이 허가(조건부허가)합니다.

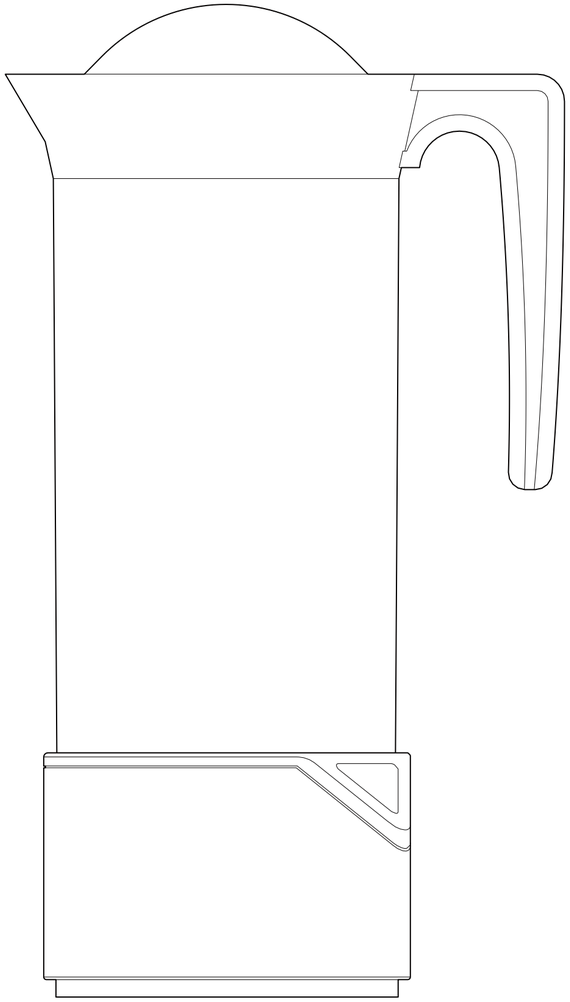
2020 년 06 월 08 일

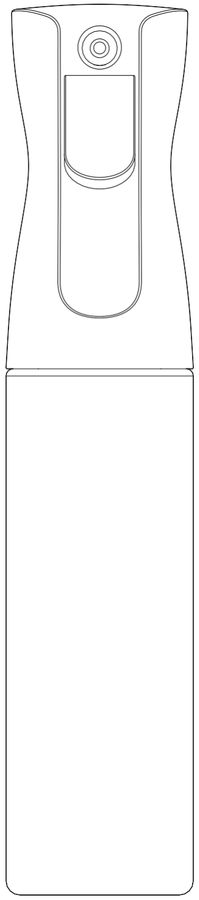
농림축산검역본부장

Approval to manufacture medical equipment for animals

Our R&D Center have passed rigorous verification procedures and obtained the approval of medical device for animals by the government of Korea.

Check Point





Sterilization & Deodorization
Fast and strongly + Over 99%

Safety
Sterilization with no worries

Technology
R&D Center with doctors and masters

Various patents and unitality models

Convenience
Less effort in maintenance

Economical
The long use, the less cost

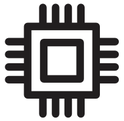
Excellent Design
Fits anywhere you live

99%

Features

Homeguard generates electrolyzed water to sterilize and deodorize

Generating strong, safe sterilizing, deodorizing water using electrolysis technology with tap water

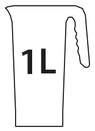


Securing safety based on the K-FDA regulation by prevention of generating over 200 ppm with SCC (Smart Current Control) technology

Quick operation & low voltage by TLE (Triple Layered Electrodes) by patented technology

Passed the test of skin irritation, eye irritation, and oral dose toxicity

Convenience & Usability by Semi-Auto spray



Generating sterilizing water of high-capacity by the pitcher of Homeguard

Intellectual Properties

Protect yourself from COVID-19

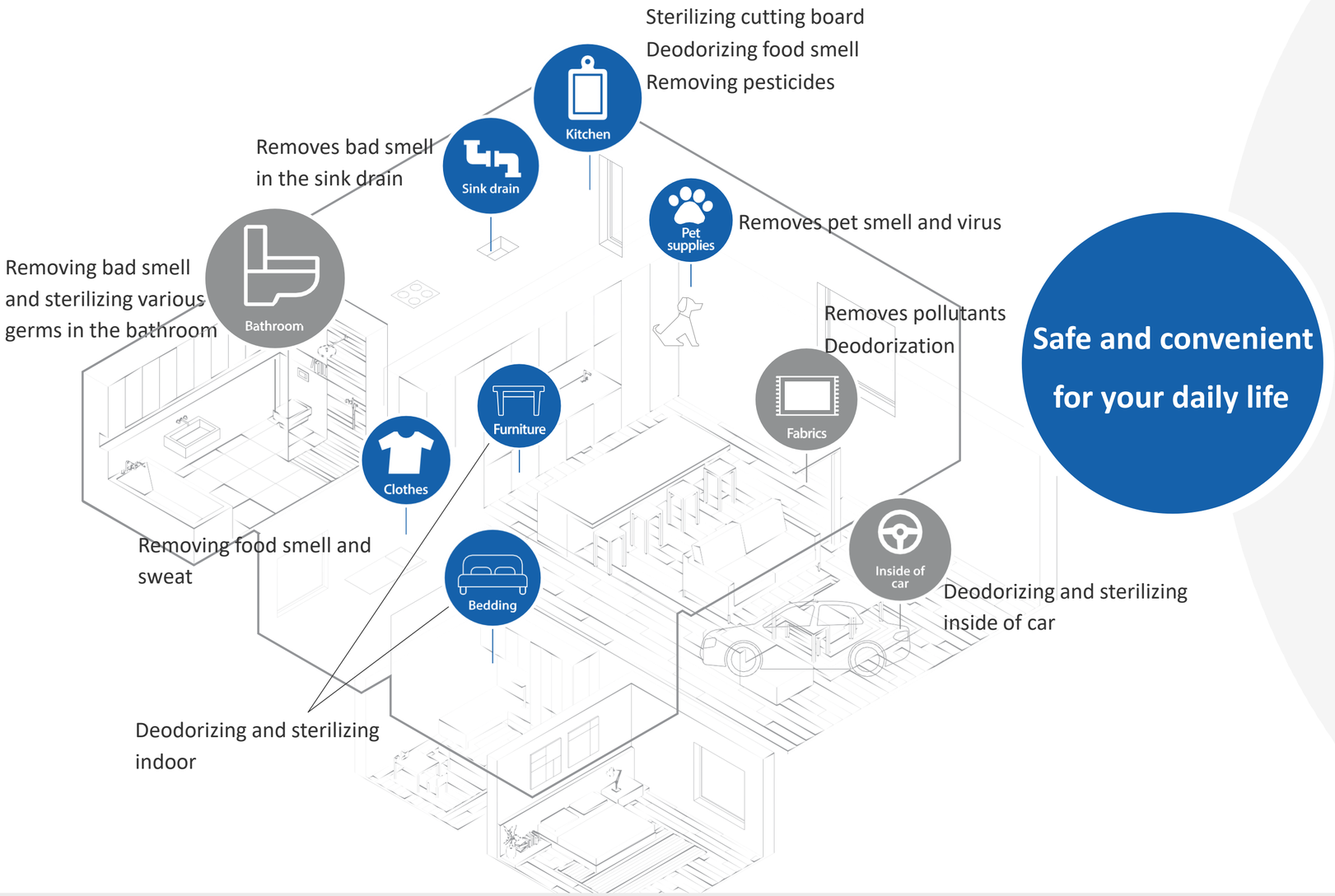
What do you do for Virus-control in your daily life?

Homeguard!

Protect your family from COVID-19

- Do you just pay attention to your hands and masks?
- Do you just step in your house after going out?
- Do you ventilate your house and office regularly?
- Do you wipe your pets' paws by baby wipes only?
- What do you do to sterilize your mobile phone which you touch thousands times a day?
- Do you think your keyboard and mouse are clean?

Applications



Safe and convenient for your daily life

For your furry friends

Sterilize pet toys, food dish and remove unpleasant smells. Also, clean pet soles after walking outside.

Humid Kitchen

Your humid kitchen is breeding grounds for germs. Keep your cutting board, kitchen knife, dishcloth, washing pad clean and sterilized.

Your bathroom must be clean

Sterilize and deodorize your toothbrush, razor, comb as well as toilet, basin.

Bedding, sofa, clothing

Fabric is good place for germs to live in. You can sterilize and deodorize blanket, pillow, sofa and clothing, which cannot be washed often.

Safety rules in your daily life with Homeguard

Clothing Sterilization

Whenever you cough and sneeze, you will cover your mouth with your sleeves. But you don’t need to wash it . Just sterilize your clothes easily.

Tap water | 1 or 3 mins | Spray | Dry

Hygienic care in your office

Sterilize doorknob, electric switch and common use space including office supplies at once!

Tap water | Refined salt 0.5 g | 3 mins | Spray | Wipe

Sterilization for 24 hours

Sterilizing public toilet

You know well, the public restroom is real breeding ground of bacteria and germ! Electrolyzed water can be the relief.

Tap water | Refined salt 0.5 g | 3 mins | Spray | Wipe

Sterilizing Anywhere!

The electrolyzed water will protect you and your family by sterilizing anything you have concerns for infection.

Tap water | Refined salt 0.5 g | 3 mins | Spray | Wipe

Check before you buy sterilizing water maker

Choose the VALUE, not price.

They can copy our designs - but our technology can be copied in no way.

We're second to none in Sterilizing Water Maker

1. Check the origin.

'Made in Korea' is one of our strengths in quality and customer supports as well as in innovation.

2. Check the technology.

Our patented and trusted technologies will protect you and your family's health and hygienic life. This device must be durable since high temperature follows during the generation of EW.

3. Check the ppm of EW.

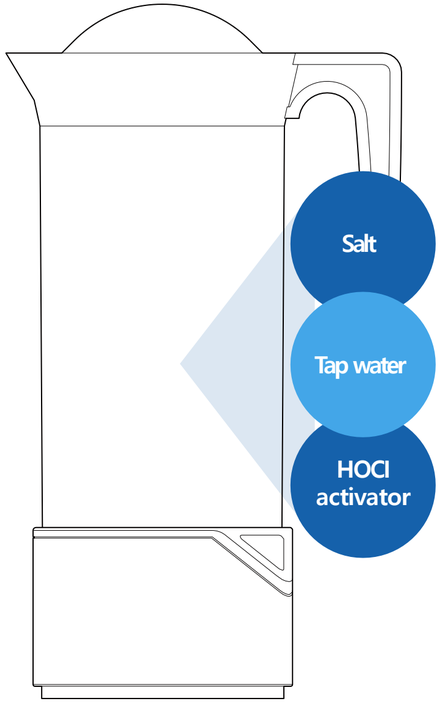
K-FDA strongly recommends the ppm of EW (Electrolyzed Water) must be below 200 ppm so that the safety of users can be secured when it's used at home. Also, over 100 ppm is the minimum ppm for efficacy, according to K-FDA.

4. Check the test reports.

You know the test reports are the only proof of the efficacy device has to a certain bacteria or virus. Do not buy it without the test reports.

Various Electrolyzed Water

Adding refined salt is not the only way to make EW.



Depending on Activator

Homeguard can make different electrolyzed water.

Salt

TEST REPORT

KTR 한국화학융합시험연구원장

HOCl activator

TEST REPORT

KTR 한국화학융합시험연구원장

Activator	5 mins	10 mins	30 mins
Salt	6.88	6.88	> 7.13
HOCl activator	> 7.13	> 7.13	> 7.13

Unit : Log reduction (LR)

Homeguard inactivates over **99.99% of H1N1 (Influenza A virus subtype).**

Principles

How is Electrolyzed Water made?

The special technology in Homeguard enables tap water to become sterilizing and deodorizing solutions by electrolysis. This is called electrolyzed water. The electrolysis of tap water ($Cl^- + H_2O \rightarrow OCl^- + 2H^+ 2e^-$) which contains a small amount of chlorinated ion (Cl^-) will generate hypochlorous acid.

Should you need to get stronger sterilizing effect, you can add the solution of Hypochlorous acid or refined salt.

How safe is Electrolyzed Water?

EW is well-known to be safe and effective as followings;

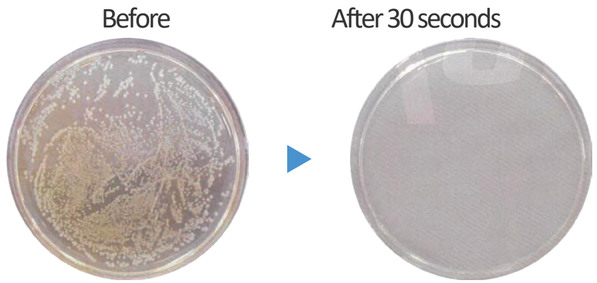
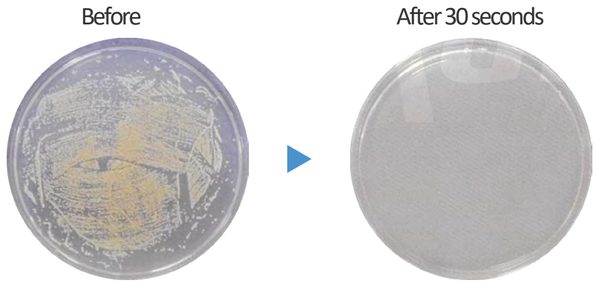
Institution	Approvals on EW	Year
EPA	Approved the equipment generating Hypochlorous Acid as disinfectants maker.	1998
USDA	Approved to be used to sterilizing E-Coli, O-157, salmonella ,etc.	1999
FDA-FSIS	Disinfectants	2006
K-FDA	Food additives and food manufacturing equipment	2007/2008

HOCl (hypochlorous acid) is a high-sterilizing substance produced by electrolysis of dilute hydrochloric acid (HCI) in anisotropic electrolyte. It is mainly used for food hygiene control, sterilization of crops, prevention of infection in hospitals and sterilization of equipment.

It is a safe sterilizing solution approved by the Ministry of Food and Drug Safety as a food additive in November 2007 with a low concentration of FAC (Free Active Chlorine) of 50 to 60 ppm in the range of pH 5 to 6.5.

Test of Sterilization

Fill the inner tank of the product with 1 L of tap water with 2 g of salt and operate it for 5 minutes to generate test solution. Inject the test strains to the test solution, react for 30 seconds, and measure the reduction rate.

Bacteria	Escherichia coli	Staphylococcus aureus
Symptons	Diarrhea, bladder infection, pyelitis, peritonitis, septicemia	Food poisoning, inflammation of middle ear, bladder infection
Initial concentration (CFU/mL)	3.1×10^5	5.0×10^5
After 30 sec. (CFU/mL)	<10	<10
Reduction Rate (%)	**99.9%**	**99.9%**
Report	 사진1 대장균- BLANK(0h) 사진2 대장균- 전해수기(30sec)	 사진1 황색포도상구균 -BLANK(0h) 사진2 황색포도상구균 -전해수기(30sec)

Issuance No.: CT20-012346K Report No.: 1102-5199-9516-6840 Tested by KCL

Test of Removing Pesticide Residue

시 험 성 적 서

(재)한국환경수도연구원
우)07201 서울특별시 영등포구 양평로28사길 29
Tel : 02-2637-1234 Fax : 02-2631-8767

성적서 번호 : ID-200051
페이지 (1) / (총 1) 끝.

1. 의뢰자 기관명 : ㈜에코웰
   주 소 : 서울특별시 강서구 가양동 449-4 한화비즈메트로1차 1107호
2. 시험대상 품목/물질/시료 설명 : 홈가드 (Homeguard)
3. 성적서 용도 : 참고용
4. 시 료 구 분 : 지참시료
5. 시 험 기 간 : 2020. 1. 17. ~ 2020. 1. 31.
6. 시 험 장 소 : ☑ 고정시험실 (서울특별시 영등포구 양평로28사길 29) □ 현장시험
7. 시 험 방 법 : 먹는물수질공정시험기준 (국립환경과학원고시 제2018-66호)
8. 시 험 환 경 : 온도 : (최저 21 ℃, 최고 23 ℃), 습도 : (최저 15 % R.H., 최고 25 % R.H.)
9. 시 험 결 과

시료명		조제수 농도	다이아지논 (mg/L)		비고
			5분 작동 후 농도	제거율	
시험군	작동 후	0.060 0	불검출	100	-
대조군	5분 후		0.001 3	98	-

※ 시험조건 (시험군, 고객제공)
1. 제공된 검체에 조제수 (수도수 이용) 1 L 와 제공된 정제소금 1 g 을 넣고 완전히 녹인다.
2. 시작 버튼을 눌러 5분 작동 후 완료 후 분석
※ 시험조건 (대조군, 고객제공)
1. 제공된 검체에 조제수 (수도수 이용) 1 L 와 제공된 정제소금 1 g 을 넣고 완전히 녹인다.
2. 5분 후 분석

확 인	시험자	김 선 호	기술책임자	송 민 형

1. 이 성적서는 의뢰자가 제시한 시료 및 시료명으로 시험한 결과로서 전체 제품에 대한 품질을 보증하지는 않습니다.
2. 이 성적서는 KS Q ISO/IEC 17025 와 KOLAS 인정과 관련 없으며 용도 이외의 홍보, 선전, 광고 및 소송용 등으로 사용될 수 없고, 서면승인 없이 재발행하지 못합니다.

2020. 1. 31.

(재)한국환경수도연구원장 (인)

KEWI-QP-15-F03C(0) Korea Environment & Water Works Institute

Specimen		Concentration	Diazinon (mg/L)	
			Concentration after 5 minutes	Reduction Rate
Test group	After operation	0.0600	Not detected	100
Control group	After 5 minutes		0.0013	98

Test of Deodorization

Ammonia (toilet)

KCL

8731-2231-7430-7719

TEST REPORT

1. NO : CT20-008563E
2. Client
   - ○ Name : ECOWELL
   - ○ Address : #1107, 551-17, Yangcheon-ro, Gangseo-gu, Seoul, 157-804, Korea
3. Date of Test : 2020.01.16 ~ 2020.01.23
4. Use of Report : Quality control
5. Test Sample : Deodorant (Homeguard)
6. Test Method
   (1) EL608:2017
7. Test Results

1) Deodorant (Homeguard)

Test Item(s)	Unit	Test Method	Test Results	Remark	Loc.
Deodorization : Ammonia (Conc.decreasing rate)	%	(1)	90.0	(19.5 ± 0.5) ℃ (48.3 ± 0.6) %R.H.	A

※ The Deodorization test method (Open space condition Products Used)
- 50 mL sample (undiluted solution)
- 11 L sized deodorization test bottle. End.

※ Location
A : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea

—— End of Report ——

Affirmation | Tested By Name : Cho, Hyung Ho CHH | Technical Manager Name : Park Hun Il

This report is not accredited by KOLAS.
Our report apply only to the standards or procedures identified and to the sample(s) tested unless otherwise specified. The test results are not indicative of representative of the qualities of the qualities of the lot from which the sample was taken or of apparently identical or similar products. The results of using only a portion of this report cannot be guaranteed. The authenticity of this test report can be checked on KCL website(www.kcl.re.kr).

2020.01.23

Korea Conformity Laboratories President Yoon, Kap Seok

Result Inquiry : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea (82-31-389-9127)

Page 1 of 1 TQP-12-01-04(1)

Trimethylamine (fish smell)

KCL

1579-3042-3548-4424

TEST REPORT

1. NO : CT20-008564E
2. Client
   - ○ Name : ECOWELL
   - ○ Address : #1107, 551-17, Yangcheon-ro, Gangseo-gu, Seoul, 157-804, Korea
3. Date of Test : 2020.01.16 ~ 2020.01.23
4. Use of Report : Quality control
5. Test Sample : Deodorant (Homeguard)
6. Test Method
   (1) EL608:2017
7. Test Results

1) Deodorant (Homeguard)

Test Item(s)	Unit	Test Method	Test Results	Remark	Loc.
Deodorization : Trimethylamine (Conc.decreasing rate)	%	(1)	87.5	(19.5 ± 0.5) ℃ (48.3 ± 0.6) %R.H.	A

※ The Deodorization test method (Open space condition Products Used)
- 50 mL sample (undiluted solution)
- 11 L sized deodorization test bottle. End.

※ Location
A : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea

—— End of Report ——

Affirmation | Tested By Name : Cho, Hyung Ho CHH | Technical Manager Name : Park Hun Il

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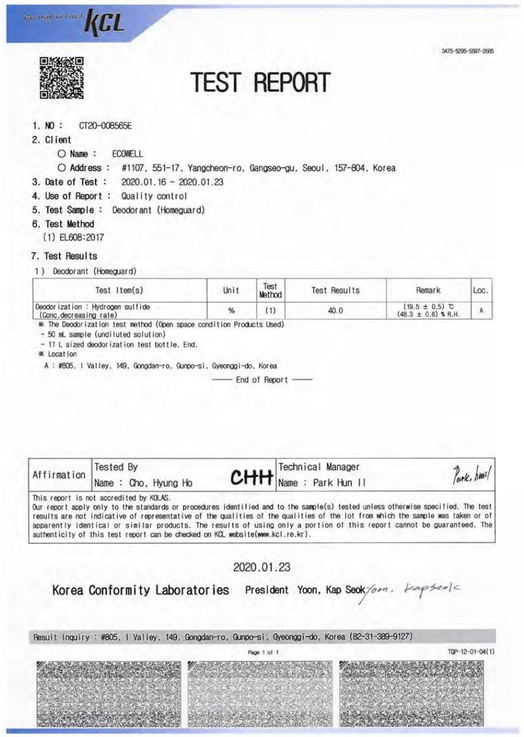
2020.01.23

Korea Conformity Laboratories President Yoon, Kap Seok

Result Inquiry : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea (82-31-389-9127)

Page 1 of 1 TQP-12-01-04(1)

Hydrogen Sulfide (garbage)



KCL

0475-5295-5597-2935

TEST REPORT

1. NO : CT20-008565E
2. Client
   - ○ Name : ECOWELL
   - ○ Address : #1107, 551-17, Yangcheon-ro, Gangseo-gu, Seoul, 157-804, Korea
3. Date of Test : 2020.01.16 ~ 2020.01.23
4. Use of Report : Quality control
5. Test Sample : Deodorant (Homeguard)
6. Test Method
   (1) EL608:2017
7. Test Results

1) Deodorant (Homeguard)

Test Item(s)	Unit	Test Method	Test Results	Remark	Loc.
Deodorization : Hydrogen sulfide (Conc.decreasing rate)	%	(1)	40.0	(19.5 ± 0.5) ℃ (48.3 ± 0.6) %R.H.	A

※ The Deodorization test method (Open space condition Products Used)
- 50 mL sample (undiluted solution)
- 11 L sized deodorization test bottle. End.

※ Location
A : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea

—— End of Report ——

Affirmation | Tested By Name : Cho, Hyung Ho CHH | Technical Manager Name : Park Hun Il

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2020.01.23

Korea Conformity Laboratories President Yoon, Kap Seok

Result Inquiry : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea (82-31-389-9127)

Page 1 of 1 TQP-12-01-04(1)

Methyl mercaptan (Pet smell)

KCL

8401-7000-1127-7801

TEST REPORT

1. NO : CT20-008566E
2. Client
   - ○ Name : ECOWELL
   - ○ Address : #1107, 551-17, Yangcheon-ro, Gangseo-gu, Seoul, 157-804, Korea
3. Date of Test : 2020.01.16 ~ 2020.01.23
4. Use of Report : Quality control
5. Test Sample : Deodorant (Homeguard)
6. Test Method
   (1) EL608:2017
7. Test Results

1) Deodorant (Homeguard)

Test Item(s)	Unit	Test Method	Test Results	Remark	Loc.
Deodorization : Methyl mercaptan (Conc.decreasing rate)	%	(1)	98.8	(19.5 ± 0.5) ℃ (48.3 ± 0.6) %R.H.	A

※ The Deodorization test method (Open space condition Products Used)
- 50 mL sample (undiluted solution)
- 11 L sized deodorization test bottle. End.

※ Location
A : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea

—— End of Report ——

Affirmation | Tested By Name : Cho, Hyung Ho CHH | Technical Manager Name : Park Hun Il

This report is not accredited by KOLAS.
Our report apply only to the standards or procedures identified and to the sample(s) tested unless otherwise specified. The test results are not indicative of representative of the qualities of the qualities of the lot from which the sample was taken or of apparently identical or similar products. The results of using only a portion of this report cannot be guaranteed. The authenticity of this test report can be checked on KCL website(www.kcl.re.kr).

2020.01.23

Korea Conformity Laboratories President Yoon, Kap Seok

Result Inquiry : #805, I Valley, 149, Gongdan-ro, Gunpo-si, Gyeonggi-do, Korea (82-31-389-9127)

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How to Use

01. Pour 1L of tap water to the pitcher.

02. Add salt as necessary.
*Refer to the recipe book

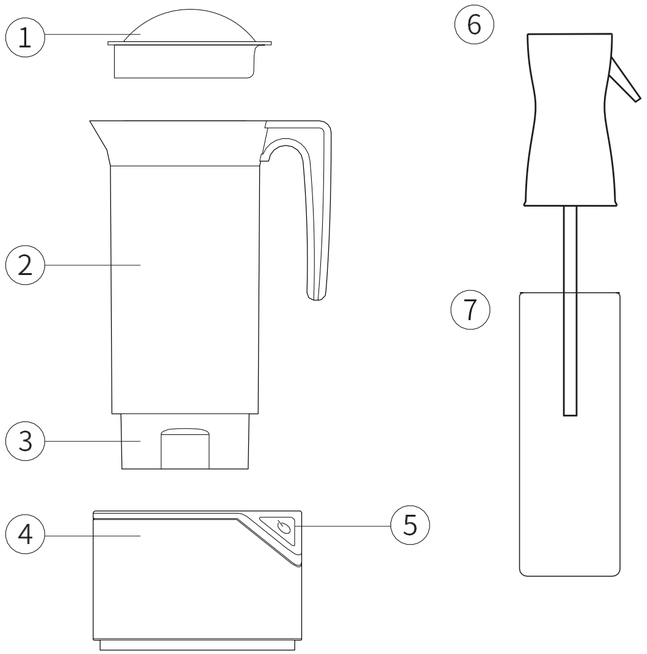
03. Stir lightly in the pitcher with a long spoon.

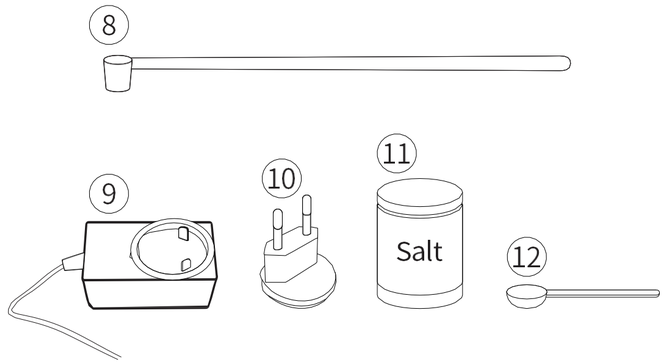
04. Press the button briefly

05. After operation, pour the electrolyzed water to the spray.

06. Sterilize or Deodorize with semi-automatic spray.

Components





1.Spray Head

2.Spray Water Bottle

3.Electrode Part

4.Body

5.Operation Button

6.Spray Head

7.Spray Water bottle (300ml)

8.Stick for dissolving salt

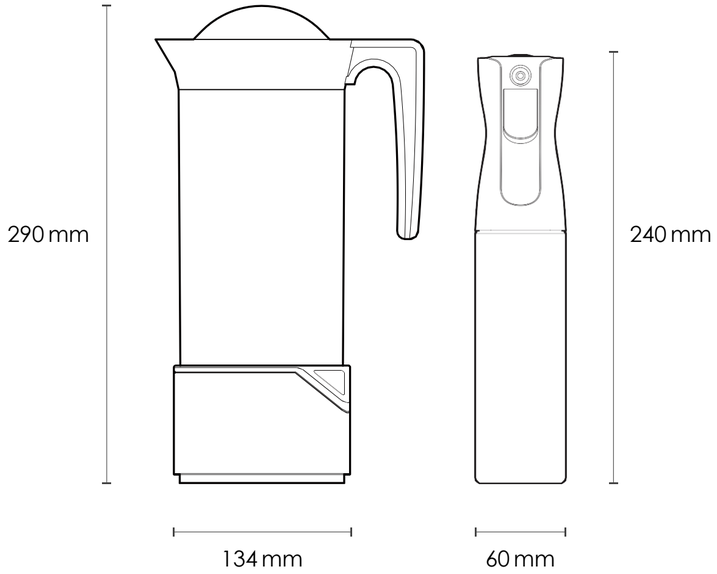
9.Adapter

10.Adaptor Plug

11.Salt (70g)

12.Spoon (adding 2g Salt)

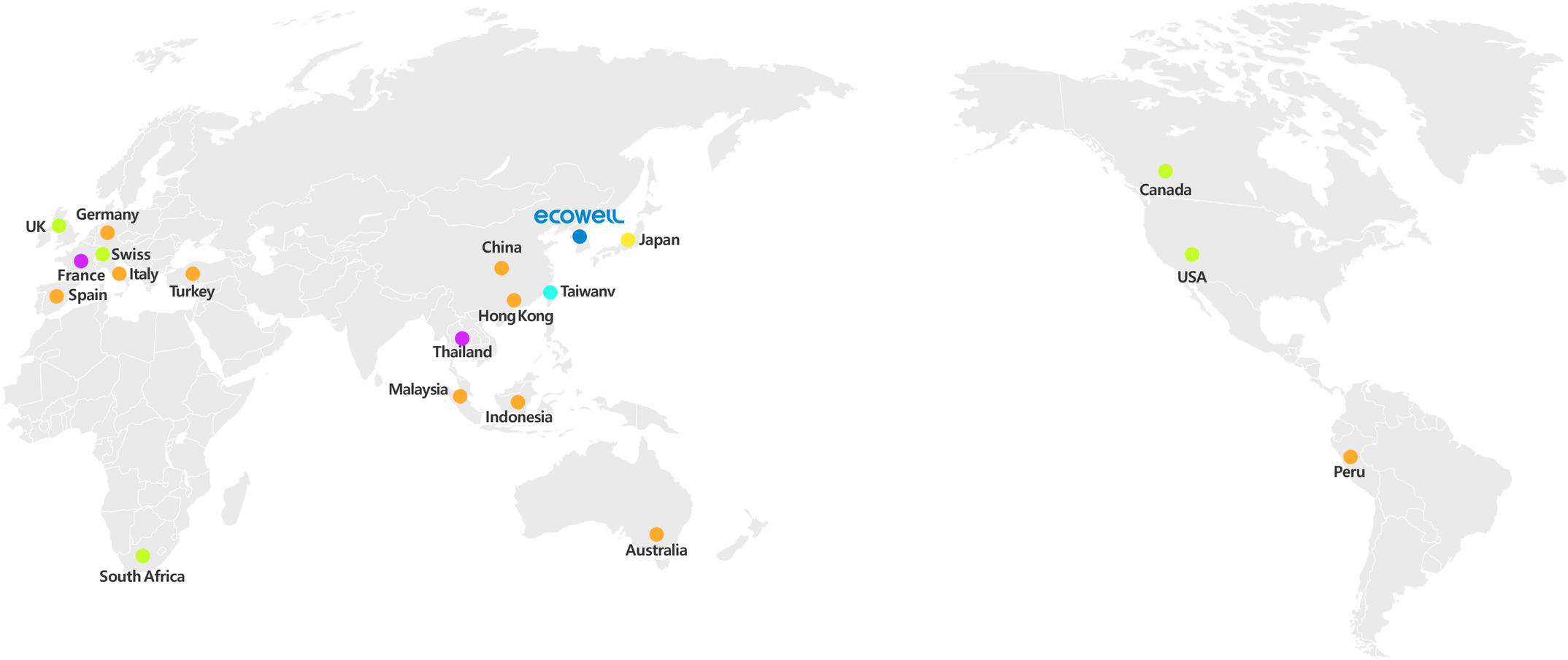
Specifications



Product	HOMEGUARD
Manufacturer	Ecowell Co., Ltd.
Properties of Production	Hypochlorous Acid,(WI+) Sodium Hypochlorite (with salt)
Rated Voltage	Input AC 220V 60Hz Output DC 9V 3.0A
Product Standard	Feature: 134X134X290(mm) Spray: 60X60X240(mm)
Weight	478 g
Capacity	Spray: 300ml Pitcher: 1L
Material	ABS + PP

The countries we export

We’re expanding the markets and opportunities



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