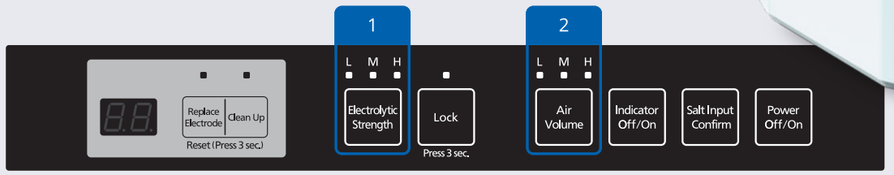
ziaino™ Air Treatment Unit

F-JPU70A, F-JPU70M

- 3-speed selection
- 3 level of electrolysis intensity
- Safety lock / indicator
- Brightness On/Off button
- Salt input confirm button to avoid accidents
- Clear status indicator on front display
- Alert indicator (door, water refill, drain, salt input)
- Dimension: 730 (H) x 510 (W) x 307 (L)
- Weight: 17 Kg



1. Electrolytic strength adjustment function

Choose from 3 levels and adjust the pollutant inhabitation and deodourisation effects.

2. Air volume adjustment function

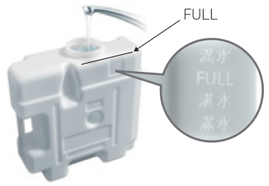
Choose from 3 levels of air volume to shorten the time of deodourising.

Daily water supply and drainage is easy.

1. Fill the supply tank with water

■Be sure to use drinkable tap water

Do not use the following:
- Hot water over 40℃ or water with detergent
- Water containing chemicals, air fresheners, aromatic oils, etc.
- Water from water purifiers, alkaline ionized water, or mineral water
- Well water

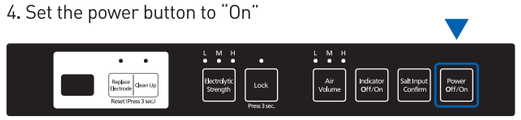


2. Drain the water from the drain tank

■Drain the water while running tap water.

3. Put one salt tablet into the tray slot and press the confirm button

4. Set the power button to "On"



Specifications

Model		Air Volume		Consumption	Noise	Continuous Operation Time with Full Water
		[CMM]	[CFM]	[W]	[dB(A)]	[Hour]
F-JPU70A F-JPU70M	Hi	7.0	247	72	49	9.6
	Med	4.0	141	31	37	14
	Lo	2.0	70	20	20	22.6

The ziaino™ F-JPU70A is effective in rooms of up to 93 m² (1,000 ft²)
The power consumption is about 1 W as connecting to power supply and operation is OFF
The noise is A-weighted sound pressure level, measured in sound-proof laboratory environment
The continuous operation time with full water is obtained under condition of room temperature 20°C and RH 30%, the time may differ subject to different condition

1. Please note that products incorporating ziaino™ technology are not to be used for medical treatment.
2. ziaino™ technology has been found to be effective in suppressing a number and variety of harmful airborne and adhering substances, including viruses (e.g. H1N1), bacteria (e.g. E. coli). However, ziaino™ does not create an aseptic environment, nor does it guarantee the prevention of infection.
3. Deodorization effect varies according to the environment (temperature and humidity), operation time, odor, and fabric types. It does not eliminate toxic substances in cigarettes (carbon monoxide, etc.). Odors that are continuously generated (e.g. building material odors and pet odors) are not completely eliminated. Results may vary based on usage, and seasonal/environmental variables (temperature and humidity). ziaino™ inhibits the activity or growth of viruses, but do not prevent infection.
4. Individual results may vary based on usage, and environmental variables (temperature and humidity).

Panasonic®
Panasonic Ecology systems Co., Ltd.
https//www.plshk.panasonic.hk/

- Actual colors may vary slightly from shown.
- Specifications are subject to change without prior notice.

CATALOG NO: XXXXXXXXX
Printed in Malaysia XX.XX

Panasonic

ziaino™

Wash Indoor Air

AN INNOVATIVE EXPERIENCE

ziaino™ is Panasonic's original space purification technology created with naturally derived salt and water. It is effective to inhibit pollutants and deodourise spaces where people are present.

Business has changed by installing ziaino™

Case Study

CLINIC

Requires a high standard for sanitation

Owner

Relieves concerns of patients and doctors

Pregnant women are sensitive to odours

Owner

Expects to meet patients' sense of security

NURSING HOME

Hard to disinfect areas where visitors touch

Owner

Praises for its effectiveness for both airborne and adhered bacteria

Hypochlorous acid sprays usually take time to clean

Owner

Relieves burden of workers by not using sprays

SCHOOL

Normal air purifiers are not enough for disinfection

Owner

Useful as PR for a measure of disinfection

Requires a countermeasure when kids suddenly vomit or have diarrhea

Owner

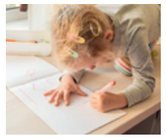
Realizes effects especially on deodourising

: Inhibition to bacteria & virus : Deodourisation

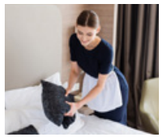
Recommended Business owners

Clinic

Nursing home



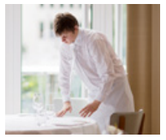
School



Hotel

Office

Sports gym



Restaurant

ziaino™ contributes to your business by creating safe and comfortable spaces.

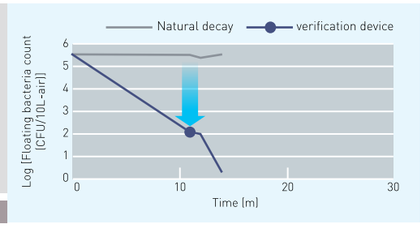
To learn more, access this QR code! →

What ziaino™ can do ?

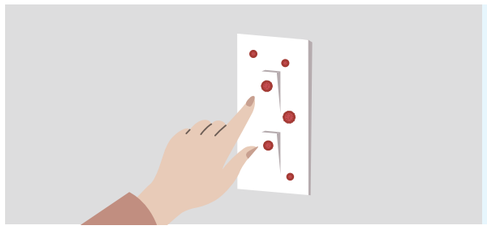
ziaino™ is a hypochlorous acid made from naturally derived salt and water that removes pet and waste odours, and is effective in inhibiting bacteria and viruses. It can be used safely and securely in manned spaces.

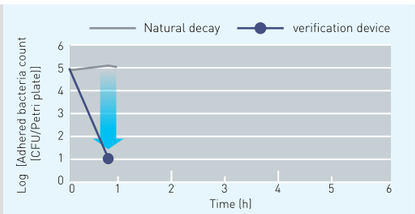
Inhibition of bacteria and viruses

Inhibits airborne bacteria and viruses, as well as bacteria and viruses adhered to the furniture in the room.



[Testing institution] Kitasato Research Center for Environmental Science [Testing method] Measuring changes in the number of airborne bacteria in a 25m³ test space [Operational method] Operating the F-JDS70 on the strong setting. [Test subject] Airborne bacteria [Test results] 99% inhibition confirmed after 11 minutes [Report no.] Kitaseihatsu No. 2019_0202

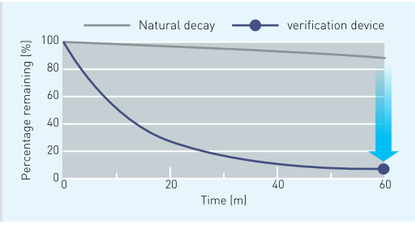




[Testing institution] Kitasato Research Center for Environmental Science [Testing method] Measuring changes in the number of adhered bacteria in a 25m³ test space [Operational method] Operating the F-JDS70 on the strong setting. [Test subject] Adhered bacteria [Test results] 99% inhibition confirmed after 45 minutes [Report no.] Kitaseihatsu No. 2019_0202

Deodourisation

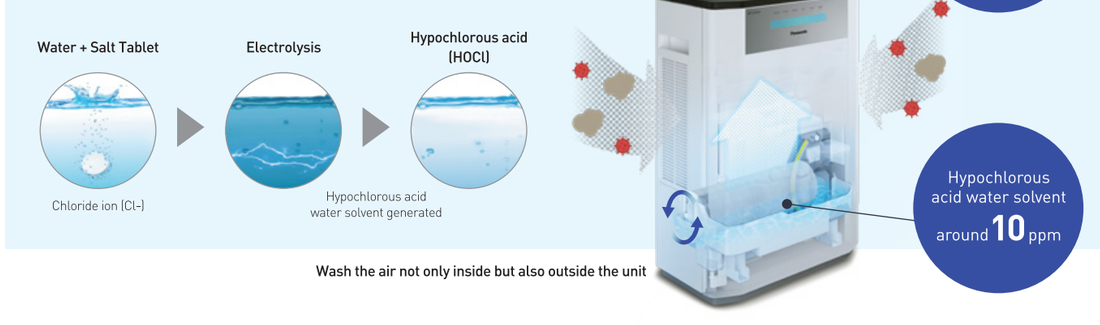
Quickly deodourises odours that continue to drift



[Testing institution] Panasonic Ecology Systems Co., Ltd. [Testing method] Using a gas detector tube in a 25m³ test space filled with a certain concentration of odourants. [Operational method] Operating the F-JDS70 on the strong setting. [Test subject] Indoor air [Test results] 92% reduction in 60 minutes (vs. initial concentration), 77% reduction in 60 minutes (vs. natural decay)

Note: Photograph is for illustrative purposes.

What is ziaino™ ?



Aqua ziaino™ inhibits activity of novel coronavirus (SARS-CoV-2) over 99.99% in 1 minute

The COVID-19 pandemic triggered by the Novel Coronavirus (SARS-CoV-2) has brought social distancing and constant sanitization as the new normal in our daily lives. Hypochlorous acid water enables you to enjoy a worry-free environment by inhibiting the virus and breathing cleaner air at the same time.

COVID-19 Inhibition Results Part 1

Proof of the inhibitory effects of the effective chlorine component of the volatilized hypochlorous acid solution on COVID-19.

The effective chlorine component of the hypochlorous acid solution volatilized from the verification equipment inhibited over 99% of the attached COVID-19 virus in 8 hours.

Test results

COVID-19 (SARS-CoV-2)

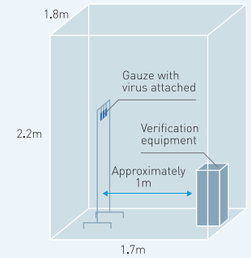
Time	2 hours	4 hours	8 hours
Inhibition rate	91.48%	97.86%	>99.99%

[1] Institution: Texcell (France)
[2] Test subject: COVID-19 (SARS-CoV-2)
[3] Test volume: Approximately 6.7 m³ (2.2×1.8×1.7 m) of closed space
[4] Test results: Over 99.99% inhibited in 8 hours.
[5] Report No.: 1174/01c2

Test outline

Test environment

Approximately 6.7m³




Texcell
CERTIFICATE OF INVESTIGATION STUDY

This verification was designed to generate basic research data on the effects of ziaino™ on the novel coronavirus in laboratory conditions different from those found in living spaces.

COVID-19 Inhibition Results Part 2

Proof of the inhibition effects of a hypochlorous acid solution on COVID-19.

Exposing a hypochlorous acid solution of around 10mg/L at pH 8.5 to COVID-19 inhibited it by more than 99.99% in 1 minute.

Test results

COVID-19 (SARS-CoV-2)

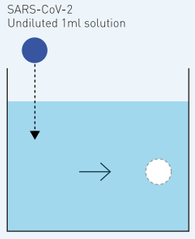
Virus solution: Hypochlorous acid solution	Time	Inhibition rate
1:99	1 minute	Over 99.99%

[1] Institution: Texcell (France)
[2] Test subject: COVID-19 (SARS-CoV-2)
[3] Test volume: Virus solution:hypochlorous acid solution = 1:99
[4] Test results: Exposure of hypochlorous acid solution of about 10mg/L, pH8.5 to COVID-19 inhibits the virus by more than 99.99% in 1 minute.
[5] Report No.: 1174/02c3

Test outline

Test environment

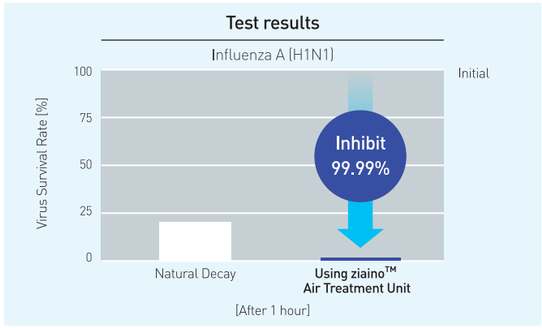
Virus solution:hypochlorous acid = 1:99



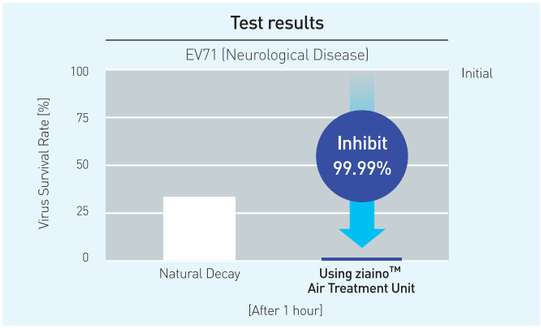

Texcell
CERTIFICATE OF INVESTIGATION STUDY

This verification was designed to generate basic research data on the effects of nanoe™ on the novel coronavirus in laboratory conditions different from those found in living spaces. It was not designed to evaluate product performance.

Anti-virus

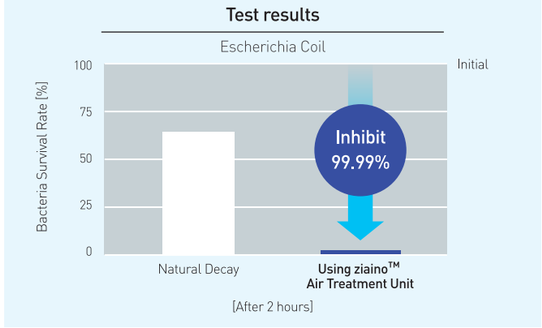


[1] Test Lab: Guangzhou Institute of Microbiology
[2] Test Condition: Floating Virus Influenza A (H1N1) in a 30 m³ space
[3] Report no.: KY20210193

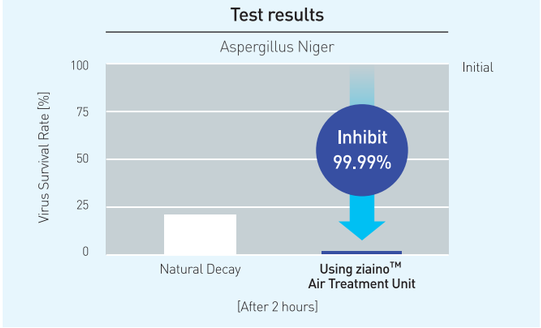


[1] Test Lab: Guangzhou Institute of Microbiology
[2] Test Condition: Floating Virus EV71 in a 30 m³ space
[3] Report no.: KY20210193

Anti-bacteria



[1] Test Lab: Guangzhou Institute of Microbiology
[1] Test Condition: Floating bacteria Escherichia Coli in a 30 m³ space
[1] Report no.: KJ20211478



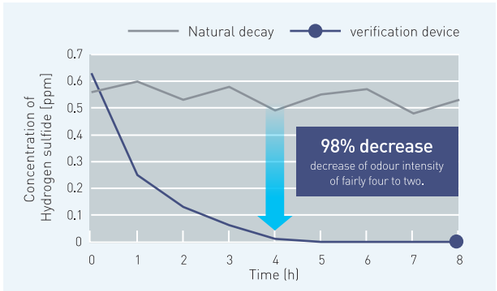
[1] Test Lab: Guangzhou Institute of Microbiology
[2] Test Condition: Floating fungus Aspergillus Niger in a 30 m³ space
[3] Report no.: KJ20211478

Tests are processed in test room only; actual usage environment are not tested.

Deodorization

When the odor components are sucked into the machine, ziaino™ decomposes the odour components through chemical reactions that achieve the deodorization effect.

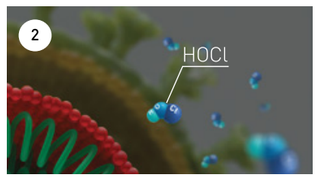
[1] Test Substances: Hydrogen Sulfide
[2] Test Lab: Environmental Control Center Co., Ltd.
[3] Test Method: Filled with certain concentration of odor component in the 9.7m² test room and verified by gas chromatograph method
[4] Deodorizing Method: F-JDS70 operate in Hi speed
[5] Deodirizing Object: Indoor air
[6] Test Result: Decrease fairly from four to two.98% concentration decrease in four hours.



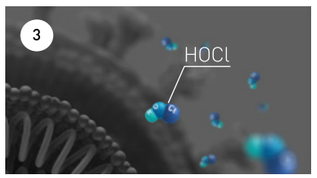
How mechanism works?

The Cl^+ in HOCl, the primary component of Aqua ziaino™, is an unstable substance. It oxidizes and decomposes proteins that are the source of bacteria, viruses, and odors.

HOCl in Aqua ziaino™ reaches bacteria, viruses, and odours.



Decompose the proteins.



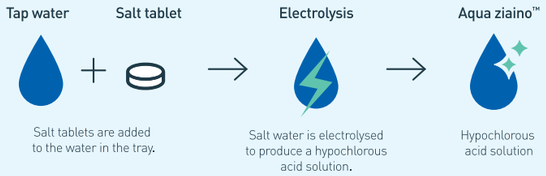
Inhibits them.

All about ziaino™ technology

ziaino™ is a space purification technology made with naturally derived salt and water.
It inhibits bacteria and viruses and can be used safely and reliably in manned spaces.

What's aqua ziaino™

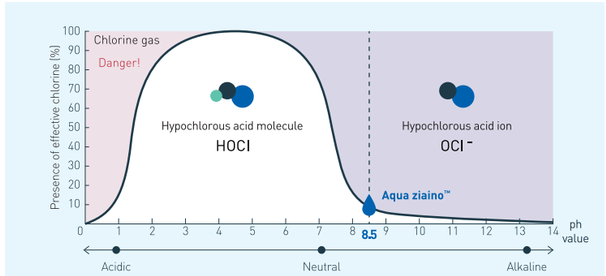
Salt tablets are added to the water in the tray and electrolysed to create Aqua ziaino™.



1 A balance that is effective in both aqueous and vaporized solutions

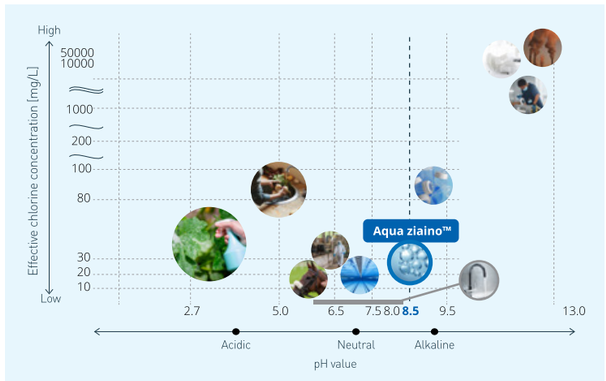
Aqua ziaino™ has a hypochlorous acid (HOCl) and hypochlorous acid ion (OCl-) ratio of approximately 1:9, meaning that it can vaporize slowly while maintaining its power to inhibit pollutants as an aqueous solution. It is also effective as vaporized Aqua ziaino™ .

note: From "Water Purification Technology" (with some additions)



2 Slight alkalinity for use in manned spaces

The properties of hypochlorous acid vary depending on its pH value, which indicates whether it is acidic or alkaline, and the concentration of the hypochlorous acid. Some pH values and concentration levels require caution for handling. The Aqua ziaino™ created by Panasonic's ziaino™ is slightly alkaline with a pH of 8.5. The balance between effectiveness and safety is emphasized, making it safe to use in manned spaces.



3 Continuous effects through concentration control

The electrolysis of salt and water controls the concentration to demonstrate continuous effects.

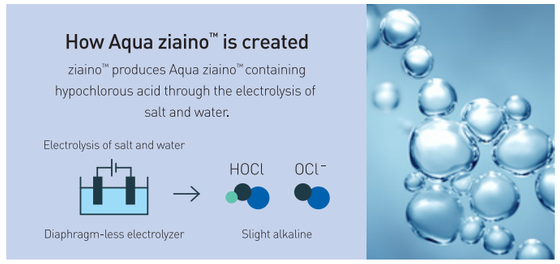
Why ziaino™ is safe

ziaino™ only uses naturally derived and salt and water to produce hypochlorous acid.
The concentration is safe to use in manned spaces, emphasizing a balance between effectiveness and safety.

Reason 1

The concentration is controlled by the electrolysis of salt and water.

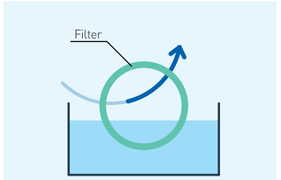
Providing effective technology safely is incompatible in some cases.
Here are some unique features that make ziaino™ safe and effective.



Reason 2

ziaino™ is not a spray, but a vapor

Spraying spaces
Spraying Aqua ziaino™ over a large area.



Ventilation vaporization
Vaporizing the solution and delivering it using a filter

Reason 3

The concentration of vaporized ziaino™ is less than regulation level

The concentration of vaporized Aqua ziaino™ volatilized from ziaino™ is lower than the environmental standard (0.5ppm*1) for chlorine gas in the air and is suitable for use in manned spaces.

*1: Non-toxic amount (NOALE) from the EU risk assessment

ziaino™ gas concentration at outlet	Non-toxic evaluation *2 (NOAEL) chlorine gas upper limit
Less than 0.1 ppm	0.5 ppm

*2 Except for use in special environments such as enclosed spaces that are fractionally smaller than the appropriate floor area.

External Safety Verification List

Various verifications have been conducted by external verification institutions while ensuring fairness.

Test name	Purpose of test	Aqueous solution and gas used	Testing institution
Comet assay	Effects on DNA	Gas Exposure	Food and Drug Safety Center
90 day repeated-dose toxicity study	Inhalation safety	Gas Exposure	Gunma Prefectural Institute of Public Health and Environmental Sciences
28 day repeated-dose toxicity study	Inhalation safety	Gas Exposure	Gunma Prefectural Institute of Public Health and Environmental Sciences
28 day repeated-dose toxicity study	Inhalation safety	Gas Exposure	Kamakura Techno-Science, Inc.
Skin sensitization	Skin safety	Liquid Exposure	Kamakura Techno-Science, Inc.
Skin irritation	Skin safety	Liquid Exposure	Kamakura Techno-Science, Inc.
Eye irritation	Skin safety	Liquid Exposure	Kamakura Techno-Science, Inc.