



This is the future of antimicrobial technology. Daily germ defense for your family! Zoono skin & surface sanitizers are formulated to kill the toughest germs for longer, without nasty chemicals. And is tested and in use against the coronavírus.







#### LONG LASTING

Zoono lasts for up to 24 hours on skin & up to 30 days on surfaces.



#### **ULTRA GENTLE**

Zoono doesn't use dangerous chemicals or alcohol.



#### RECOMMENDED BY MICROBIOLOGISTS

Zoono's effectiveness has been verified by over 100 lab results.



"we do it better"



## ZOONO®

#### **HOW ZOONO WORKS**



1.

Spray the surface/hand. Zoono bonds to the surface/hand to create a protective layer



2.

The pathogens comes in contact with the Zoono shielded surface/hand



3.

The pathogen bursts like a balloon on contact



4

And you're protected! For 24 hours (hands) or 30 days (surfaces)!



#### **ZOONO TECHNOLOGY**

Zoono's "physical kill" replaces the need for dangerous poisons, chemicals and alcohol. This method of rupturing the cell means the cell cannot mutate, preventing the development of superbugs.

Zoono is colourless, odourless, non-leaching, environmentally safe, non-corrosive and whilst completely gentle for humans and animals, it is deadly for a wide range of bacteria, viruses and mould.

Zoono does not contain harmful chemicals, as a liquid Zoono is less toxic than vitamin C and coffee.

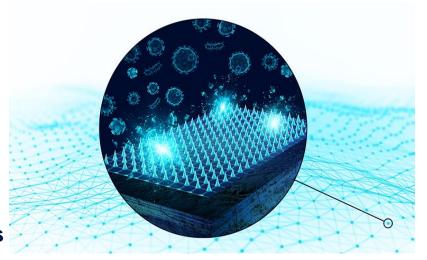




#### **ZOONO TECHNOLOGY**

When applied to a surface by spraying, wiping or 'fogging', Zoono leaves behind a mono-molecular layer that permanently bonds to the surface. These molecules are antimicrobial, silane based polymers that covalently bond to the surface forming a barrier of positively charged microscopic pins.

The positively charged microscopic pins attract and pierce negatively charged pathogens. The pins rupture the cell walls. This causes the pathogen to break up with lethal effect. The layer of molecular antimicrobial pins carries on working for up to 30 days on surfaces. Routine cleaning can continue and does not disrupt the Zoono molecule or its antimicrobial activity.





#### **ZOONO INGREDIENTS**

Zoono products use purified, deionized water & an antimicrobial compound.

We use a Quaternary Ammonium Compound – these are commonly used antibacterial agents found in products such as toothpaste, contact lens products, cosmetics, soaps.

While our quaternary ammonium compound originates from natural sand the process is synthetic.

Our trade secret lies in the technology behind the quaternary ammonium compound which enables Zoono to stay active and continue killing pathogens for long periods of times.

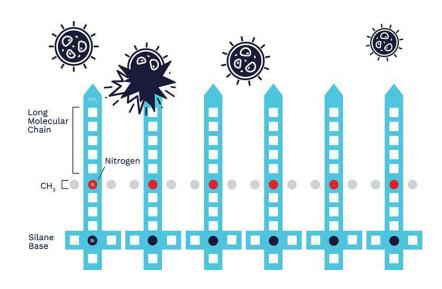




#### **HOW ZOONO WORKS**

Zoono works by the formation of a molecular layer of covalently bound biocidal molecules based around silicone polymer chemistry.

The simplest analogy is that antimicrobial "spikes" are formed on the surface that are highly positively charged and as a result of this charge, the negatively charged molecular structure of microorganisms are attracted to the "spikes" and the cell wall and membrane is lysed; the organism is then killed and the process continues.





#### WHERE TO USE ZOONO

Any environments where germs are present and likely to pose a threat.

Zoono currently is successfully used in buildings, vehicles, shipping, homes and hospitals where there is a risk of infection.

Routine liquid disinfectants only work when the surface is wet, once the disinfectant is wiped off or dried it is no longer capable if killing any further potentially harmful microorganisms that recontaminate that surface, in fact the surface becomes contaminated to the same levels as before disinfection within 1 – 2 hours. But with Zoono you stay protected for 30 DAYS (surfaces) or 24 HOURS (hands). It's a game changer!

This is the reason why Zoono technology is the next generation biocide because it is also water-based and has a low toxicity level so does not require any special precautionary considerations such as the more toxic and corrosive biocides, which is why it can also be used in the home.



#### HOW TO APPLY AND HOW OFTEN TO USE ZOONO





#### **EFFICACY AND TESTING**

Zoono conforms to regulations from around the world and has passed PAS 2424, EN13697, EN1276, EN1650 amongst many more antimicrobial efficacy tests.



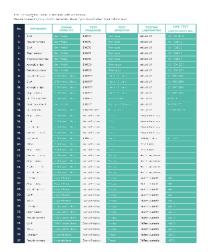


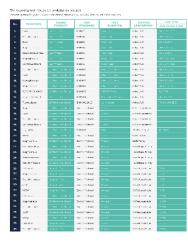


#### **EFFICACY AND TESTING**

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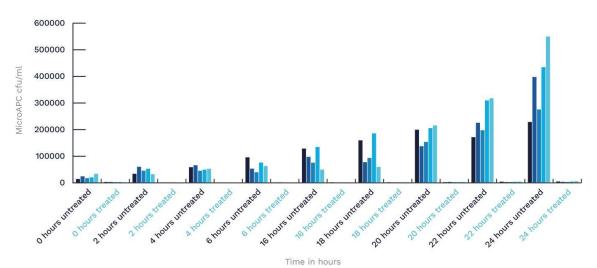
#### FULL LAB RESULTS AVAILABLE

Approved personnel can access Zoono results, please contact us (mail.portugal@sapo.pt) with your business or organization details for full display.



#### PROVEN TO REMAIN ACTIVE ON SKIN FOR 24 HOURS

Untreated vs. Zoono treated hands over 24 hours:



Coloured bars indicate pathogen growth on untreated hands

Note: virtually non-existent growth on treated hands



#### PROVEN AGAINST A RANGE OF PATHOGENS ON SKIN

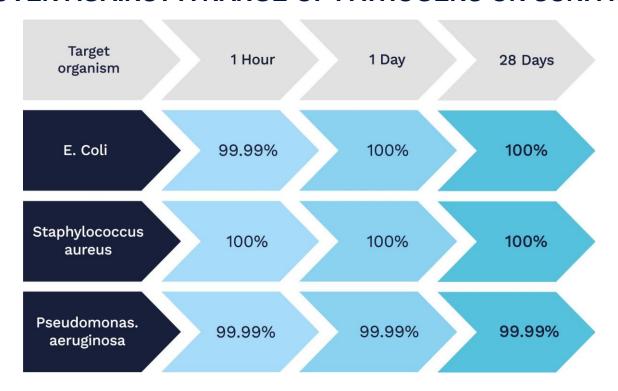


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#### PROVEN AGAINST A RANGE OF PATHOGENS ON SURFACES



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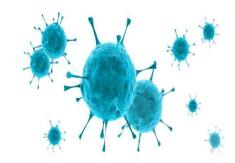
#### PROVEN AGAINST A RANGE OF PATHOGENS ON FABRICS



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COVID-19



#### IS ZOONO EFFECTIVE AGAINST CORONAVIRUS?

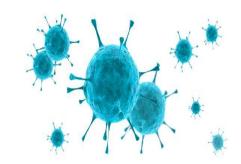
Zoono Group Limited (ASX:ZNO) is pleased to advise that it has received the report for the laboratory tests undertaken against COVID-19. The results show that Zoono's Z-71 Microbe Shield (the same Zoono technology used in Zoono hand sanitiser) is > 99.99% effective against feline coronavirus (the recognised surrogate for COVID-19).

COVID-19 has become a global concern, in particular as it has been shown to survive on surfaces for up to 9 days.

Zoono products have been successfully tested against a variety of pathogens for up to 30 days on surfaces and 24 hours on hands.



COVID-19



#### IS ZOONO EFFECTIVE AGAINST CORONAVIRUS?

Whilst Zoono had been previously tested against bovine coronavirus (the nominated surrogate for MERS), this latest strain required new testing.

Two separate tests were completed to EN Standard 14476:2013+A2:2019.

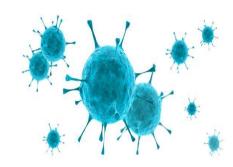
The first was against Vaccinia, sometimes referred to as the 'mother ship' of double enveloped viruses(that are particularly hard to inactivate); with the subsequent test against the nominated (and globally accepted) surrogate for COVID-19, feline coronavirus.

EN14476 is the European Standard that applies to products within the medical area including hygienic hand rubs, hygienic hand wash, instrument disinfection by immersion, surface disinfection by wiping, spraying, flooding or other means.

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COVID-19



#### **RESULTS:**

The test against Vaccinia confirmed efficacy of > 4Log (greater than 99.99% efficacy) for Zoono Z-71 Microbe Shield (the same Zoono technology used in Zoono Hand Sanitizer).

The second test against the COVID-19 surrogate, feline coronavirus, confirmed efficacy at 4.33Log (greater than 99.99% efficacy).

Zoono's hand sanitizer has also been tested against the COVID-19 surrogate Feline Coronavirus and on 23 of March 2020 has also proven to be effective at >99.99%).

Zoono is very pleased with the results which further demonstrates the ability of the Zoono technology to be part of the solution to prevent and protect against the spread of the COVID-19 Virus



### **BUSINESS, INDUSTRIAL AND INSTITUTIONAL APPLICATIONS**

#### WHY ZOONO?



#### **EFFICACY REASSURANCE**

Zoono conforms to regulations from around the world and has passed EN13697, EN1276, EN1650 amongst many more antimicrobial efficacy tests. All lab test results are available on request. Where additional testing is required, Zoono will assist organizing testing with independent parties. Zoono is a transparent, honest publicly-listed business and we're here to help.



#### **COST SAVINGS**

Illness and infection can cost businesses, industries and countries billions - or even worse; people's lives. You can dramatically reduce your chances of encountering a crisis by reducing the spread of dangerous pathogens. Zoono is already helping agricultural industries optimise their stock by extending their lifecycle. Zoono is helping food & beverage manufacturers follow strict hygiene sterile protocols. Zoono is helping reduce the spread of dangerous pathogens in medical facilities. Zoono is reducing absenteeism in office settings, schools and early childcare centers.

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# BUSINESS, INDUSTRIAL AND INSTITUTIONAL APPLICATIONS WHY ZOONO?



#### SAFER

Zoono is water-based and free from harmful chemicals. It's safer for aquatic organisms and less likely to cause skin and eye irritation. It's safer for you, your staff and your customers, whilst being deadly to a wide range of pathogens



#### **COST EFFECTIVE**

Zoono's unique antimicrobial molecule provides a mono-molecular protective layer on any surface. Once bonded it is extremely difficult to remove and it stays active for up to 30 days on surface. Application is therefore is not required as often as other protective offering.



#### **BUSINESS, INDUSTRIAL AND INSTITUTIONAL APPLICATIONS**

#### WHY ZOONO?



#### LONG-LASTING PROTECTION

Once applied Zoono stays active for up to 30 days protection on surfaces and 24 hours on the skin, providing confidence that the environment is micro-biologically safe.



#### LEADERS IN INNOVATION

Zoono is the future of antimicrobial technology. We've taken a known active ingredient and given it advanced functionality. Routine cleaning and disinfection using "old technology" will not provide any long-term residual antimicrobial protection.

Zoono offers a protective barrier on top of routine cleaning where there is a risk of infection.



#### **BUSINESS, INDUSTRIAL AND INSTITUTIONAL APPLICATIONS**



Zoono's long-lasting antimicrobial protection is paramount in critical hygiene environments.

It is fundamental that the spread of Covid-19 is contained, by means to avert community contamination. And also to protect the doctors and nurses, so that they can treat us if needed.



## **OFFICE & SCHOOLS**

In the current health crisis, it's absolutely critical to minimize Covid-19 infection risk, so that workers can safely do their job and so that parents feel confident to allow their children to go to class. Zoono has been proven to reduce absenteeism in school and office buildings resulting in significant cost savings and improved productivity.



## CHILD CARE

Childcare facilities are breeding grounds for infections and contamination. And if we are going to work, we have to have somewhere to safely leave our children. Protecting the little ones keeps us all healthier. Flu, colds and Hand Food and Mouth disease will have a massive impact on centers and families.



#### **BUSINESS, INDUSTRIAL AND INSTITUTIONAL APPLICATIONS**



## TRAINS & BUSES

Trains and Buses and Metro provide essential transport for commuters and travelers alike. Millions of people mixing every day need protecting. In the "old" method, if you clean a spot now, after 5 minutes the next infected passenger will contaminate the very same spot – not with Zoono, it will stay shielded for 30 days!



## **AUTOMOBILES**

Hire Cars, Taxis and Personal Vehicles, all provide opportunities for bugs and bacteria to breed and be shared, along with the virus. If you protect your car, you will also minimize the risk of bringing the disease to your own home.



### **PLANES**

The aviation industry has a unique set of issues regarding high volumes of passengers, recirculated air and rapid movement. Sterilizing surfaces helps protect passengers and provides a unique point of difference by owning hygiene.



#### **BUSINESS, INDUSTRIAL AND INSTITUTIONAL APPLICATIONS**



### ANUFACTURE

Zoono enables manufacturers to adhere to strict hygiene practices and standards.

And by protecting its workers, the industry is protecting the work itself, thus enabling the economic comeback after the current health crisis.



## HOTELS

With the turn-around in Hotels now dramatically decreasing, it is essential that Hotels regain travelers trust and for that it's mandatory that communal areas and rooms are protected.



### **CRUISE LINERS**

The risk of outbreaks threaten customer satisfaction and damage reputations. Zoono provides a unique solution to the problems faced by the Cruise industry. People and surfaces need to be constantly protected.



"we do it better"

## ZOONO®

#### **BUSINESS, INDUSTRIAL AND INSTITUTIONAL APPLICATIONS**



With the turn-around in restaurants now dramatically decreasing, it is essential that restaurants regain people's trust and for that it's mandatory that all areas are protected.

### ZOONO AROUND FOOD

Zoono has food safety approvals and is completely safe to use around food.

Zoono is inert in its liquid state and permanently bonds to Surfaces eliminating any pathogen threats during manufacturing processes.



## **NURSING HOMES**

We have the obligation to protect our elders. Especially in this sanitary crisis, where they are the most vulnerable. We owe them at least that much. And we certainly need to take care of them. With Zoono, the spaces and the persons are better protected than ever.



"we do it better"

# ZOONO®

#### SURFACE SANITIZER/SHIELD FOR UP TO 30 DAYS







50 ml

150 ml

250 ml

500 ml

**5L Refill** 

**1000L IBC** 



"we do it better"

# ZOONO®

#### HANDS SANITIZER/SHIELD FOR UP TO 24 HOURS













50 ml

150 ml

250 ml

1L Refill

**5L Refill** 

1000L Tote