



# Kill Coronavirus Today: Protect Your Hotel Guests & Staff for 7 Days AFTER Cleaning

**Aeris Active provides hospital grade disinfection and protection for up to 7 days or 200 touches**

- ✓ Kills bacteria and viruses including **Coronavirus**
- ✓ TGA registered and HACCP approved for use in food preparation areas
- ✓ Extended protection against recolonisation on hard surfaces
- ✓ Safe to use (not bleach) & the greenest option available



## High traffic areas

Hotel common areas such as foyers, elevators, dining areas and gyms are in constant use by very high numbers of people - many of whom have travelled from other cities and countries. As a result these areas are at very high risk of exposing guests and staff to infection transmission - **especially during an escalating epidemic.**



## Hotel rooms

Protect guests and staff by ensuring ongoing hospital grade disinfection protection.



## Food preparation areas

Protect guests and staff by ensuring ongoing hospital grade disinfection protection.



## Product Set

	Product Name	Pack Shot	Overview	Product Range	SKU
Treatments	Aeris Active		<ul style="list-style-type: none"> <li>Hospital grade disinfectant cleaner</li> <li>Protects for up to 7 days or 200 touches</li> </ul>	750ml Spray	AG-AA-750
	Aeris Active		<ul style="list-style-type: none"> <li>Hospital grade disinfectant cleaner</li> <li>Protects for up to 7 days or 200 touches</li> </ul>	5 Litres	AG-AA-5



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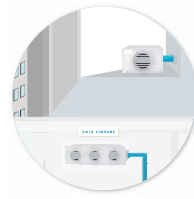
# Product Technology Across Key Areas of Contamination Control



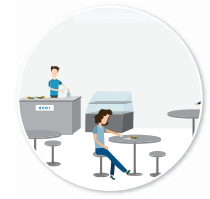
**Surfaces**  
(High risk)



**Social Contact**  
(High risk)



**Air**  
(Handling & filtration)



**Surfaces**  
(Food & refrigeration)

## Protection from the three vectors of infection



**Bacteria**



**Viruses**



**Fungi**

## Decades of Research Supporting Aeris Global Leadership

- ✓ Globally recognised laboratory, regulatory, research & development team
- ✓ Combined expertise of over 125 researchers, chemists, microbiologists & engineers
- ✓ World leading experts in microbial control and coatings with long term residual protection
- ✓ Collaboration with leading universities, regulators and institutions

### Industry accreditation:

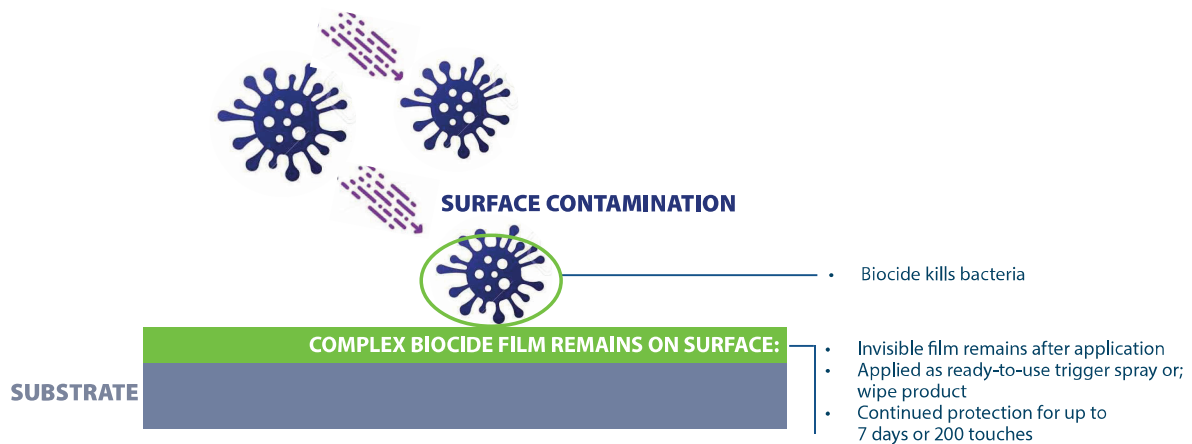
- AS/NZ3666 – Occupational Health & Safety
- AS4351:1996 – Completely biodegradable
- HACCP food safety
- AS/NZ 1668.2 Indoor air quality
- AS/NZ 3666 – Microbial control (air-handling)
- NATA accredited lab Corrosion Salt & Acid Spray Testing
- USA Environmental Protection Agency
- Singapore National Environmental Agency
- Europe CE



# Residual Efficacy: How Aeris Active® Continues to protect

Representation of Aeris Active's protective layer in action.

Indicative magnification from polymer's actual thickness of less than 1 micron:



## Surfaces (High Risk)

- ✓ Hospital grade disinfection with highest levels of user and environmental safety
- ✓ Aeris Active is viricidal, bactericidal & fungicidal protection for up to 7 days or 200 touches
- ✓ Regulatory approvals in key jurisdictions: TGA, HACCP, China NHC, NEA (Aeris Active)



**High Traffic Areas**



**High Touch Points**



**High Density**



**Transportation - vehicles & hubs**



**Health, child & aged care**



**Places of Learning**



**AERIS ACTIVE**



## Product Efficacy | Performance Overview

### Aeris Active - Disinfectant Cleaner, Hospital Grade

As at January 2020

This summary report outlines Aeris Active's superior performance as recorded from a range of independent laboratory tests for efficacy. Original test reports may be provided as required in line with requisite confidentiality agreements and approvals.

**Formulation owner:** Novapharm Research (Australia) Pty Ltd - 3-11 Primrose Avenue, Rosebery, NSW 2018  
**Licensee:** Aeris Environmental Limited



Category	Authority	Report Identifier	Performance Notes
<b>Regulatory approval:</b> <b>Commonwealth Government</b>	Australian Register of Therapeutic Goods (TGA)	ARTG 308921	Complies with Hospital Grade Disinfectant requirements - ie. Passes Option B disinfectant test and AOAC germicidal spray test.
<b>Food safety approval:</b> <b>Global certification</b>	HACCP International	Certification number: PE-798-AEL-RC-1-02b	Certified as suitable for cleaning and sanitising food and beverage equipment.
<b>Virucidal Independent testing (Adeno Virus)</b>	AMS Laboratories Pty Ltd, Australia	Final report ref: 0611452/2A	Evidence of complete viral kill.
<b>Virucidal Independent testing (Herpes Simplex Type 1 Virus)</b>	AMS Laboratories Pty Ltd, Australia	Final report ref: 0611452/3A	Evidence of complete viral kill.
<b>Virucidal Independent testing (Polio Virus)</b>	AMS Laboratories Pty Ltd, Australia	Final report ref: 0611452/1A	Evidence of complete viral kill.
<b>Virucidal Independent testing (Norovirus)</b>	Eurofins AMS Laboratories Pty Ltd, Australia	Final report ref: AAG-2371	Evidence of complete viral kill.
<b>Residual Bactericidal (S. Aureus, E. Coli)</b>	Dr Amane Shiohara Ph. D	Final report ref: TRR 0385	Finger touched 200 times showed clear zone inhibition against S. Aureus and E. Coli compared to growth on control.
<b>Bactericidal Independent testing (S. Aureus, P. Aeruginosa, Sal. Choleraesius)</b>	Nanosonics Pty Ltd, Australia	Final report ref DP-31/06	Passed AOAC Official Method 961.02.
<b>Bactericidal Independent testing (S. Aureus, P. Aeruginosa, E. Coli, P. Vulgaris)</b>	AMS Laboratories Pty Ltd, Australia	Report reference: 0902777	Passed TGA Disinfectant Test, Option B under dirty conditions



## Coil Cleaner and Coil Treatment

- 12 months' residual protection
- Non corrosive
- Biodegradable
- Australian Made



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# PART 1: MULTI-ENZYME COIL CLEANER



CLEANS



OPTIMISES

## Product Overview

AerisGuard™ Multi-Enzyme Coil Cleaner is an enzyme based cleaner for HVAC&R evaporator coils for domestic, commercial and industrial air handling installation. It removes any existing bacteria, fungi and other contaminants.

When used in conjunction with AerisGuard Bioactive Coil Treatment you are providing a 12 month microbial free outcome to your application.

## FEATURES & BENEFITS:

- Safely cleans and removes biofilm and other organic contaminants from air cooled coils
- Optimizes heat exchanger performance by removing contaminant build-up
- Improves energy efficiency and reduces running costs
- Extends asset life
- Specifically formulated to attack and remove all organic deposits found on heat exchange coils
- Will not damage or corrode heat exchanger coils
- Highly concentrated bulk product

Description	Dilution Rate
Enzyme Coil Cleaner 1L	Makes up 20 L
Enzyme Coil Cleaner 200ml	Makes up 4L



# PART 2: BIOACTIVE COIL TREATMENT



## Coil Cleaner and Coil Treatment

- 12 months' residual protection
- Non corrosive
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PROTECTS



OPTIMISES

## Product Overview

AerisGuard™ Bioactive Coil Treatment is applied to coil after cleaning with AerisGuard™ Multi-Enzyme Coil Cleaner.

When used in conjunction with AerisGuard Multi-Enzyme Coil Cleaner provides up to 12 months' residual protection to control and prevent mould, fungus and odor causing bacteria.

## FEATURES & BENEFITS:

- Optimises heat exchanger performance by minimizing contaminant build-up
- Biostatic coating provides up to 12 months protection to control and prevent mould, fungi and odour causing bacteria
- Reduce energy usage and maintenance
- Designed for use within high air flow system
- Safe for the applicator

Description	Dilution Rate
Bioactive Coil Treatment 5L	Ready to use
Bioactive Coil Treatment Aerosol 200g	Ready to use

\*Application Rate: 500ml per m<sup>2</sup>



# AerisGuard™ 12 Month Protection

✓ **CLEANER AIR CONDITIONING = BETTER HEALTH**

	MONTH 0-3	MONTH 4-6	MONTH 7-9	MONTH 10-12
Other Cleaners				
AerisGuard™ 12 Month Protection				

## APPROACH

- Validated field comparisons compared: Untreated vs. **AerisGuard™** treated coils
- Bacteria and mould growth were then measured every three months

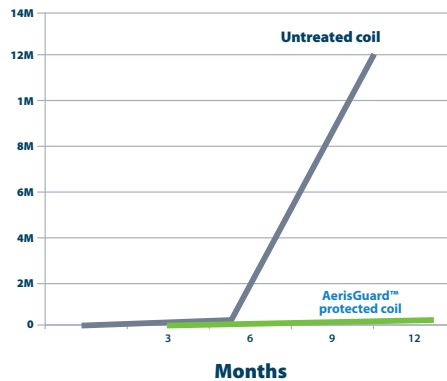
## RESULTS

- After 12 months, **AerisGuard™** treated units showed negligible bacterial and mould growth vs untreated units
- Air conditioners use approximately 15% less power

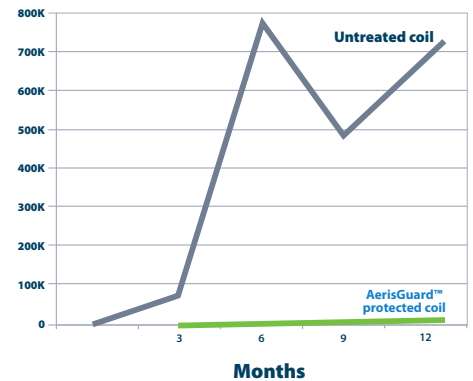
## CONCLUSIONS

- Cleaning alone is inadequate in preventing biofilm
- AerisGuard™** Biostatic coil treatments offer up to 12 months' protection from mould & bacteria

**Mould Count per 5cm<sup>2</sup>**



**Bacterial Count per 5cm<sup>2</sup>**





# AERISGUARD™ vs OTHER TECHNOLOGY

## AERISGUARD™ COIL AND SURFACE CLEANERS

	AerisGuard™ Cleaners and Treatments	Other Enzymatic Cleaner	Traditional Caustic/ Acidic Cleaner	Comparison
Fast and effective removal of biofilm using multi-enzyme technology	✓	✗	✗	Independent laboratory testing confirmed that AerisGuard™ patented multi-enzyme cleaners were faster and more effective cleaners because traditional cleaners had little or no enzyme activity and did not effectively remove biofilm growth.
System ready to run after process	✓	✗	✗	On completion of the AerisGuard™ Process of cleaning and treatment the plant is put back into operation immediately. Traditional cleaners require prolonged application times (up to 30 hours by manufacturers specifications) this leaves fouling in the coil and the system cannot be run due to strong odours.
Non-corrosive. No risk of asset corrosion during cleaning. Same pH as potable water.	✓	✗	✗	Unlike traditional caustic cleaners, AerisGuard™ patented multi enzymes will not corrode or damage the surface of the coil because it has the same pH as potable water and only cleans and digests biofilm.
Safe for waterways and the environment. No costly removal of dangerous chemicals from site.	✓	✗	✗	AerisGuard™ has the same pH as potable water and biodegradable - which is safe for waterways and the environment. Other enzymatic and traditional cleaners, are highly acidic or caustic - and cannot be disposed into the waterways.
12 months anti-microbial protection	✓	✗	✗	After cleaning, the AerisGuard™ Treatments are applied to provide up to 12 months protection from re-contamination. Other processes clean but do not provide ongoing protection against microbial growth.
Reduced running costs for plant	✓	✗	✗	AerisGuard™ process will maintain the cleanliness of the coil, improving system efficiency through maintained heat transfer and improved airflow.
US EPA approved antimicrobial protection	✓	✗	✗	The long lasting antimicrobial protection has been verified by the US EPA.
HACCP approved for use in Food Industry	✓	✗	✗	AerisGuard™ range have been approved by HACCP for use in the food industry
Complete HVAC&R hygiene solution	✓	✗	✗	Aeris is a whole of system HVAC&R optimisation process. It Cleans, Protects and Optimises.



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