

NWK A-FV PRODUCT INFORMATION

Introduction

CoatingMax Pty Ltd specialises in nanotechnology coating solutions that manipulates matter on a near-atomic scale to produce new structures, materials and devices yielding remarkable results to protect surfaces. During these unprecedented times of the COVID-19 pandemic, CoatingMax along with our manufacturing, research and development partners in South Korea have sourced an over the counter topical solution that uses nanotechnology to engineer an all-natural surface coating that neutralises Feline Coronavirus with long lasting effect.

Summary Of NWK A-FV Product

NWK A-FV uses nanotechnology to create 'egg-shell' particles containing disinfectant oils. The product is made from natural products and completely safe for human contact as evident by The Safety assessment of NWK A-FV showing no skin irritation.

When applied to bedding, textiles, curtains, clothes, carpet, walls, ceilings and fabric surfaces, NWK A-FV creates a semi-permanent bond with the target surface. Using Le Chatelier enthalpy principle, oils in these 'egg shells' are continuously released to neutralise microorganisms & viruses including Feline Coronavirus, kill bacteria and deodorise the surrounding air. The NWK A-FV product is registered with the US Food and Drug Administration as a Topical Over the Counter medical device, antimicrobial agent (FDA Reg. 10080973) and is unique in its use that once allowed two hours to bond and activate, results in an ongoing disinfecting effectiveness lasting 1 to 3 months. NWK A-FV can be applied as a spray or roll-on to any fabric surface and once activated, will release its patented 'egg-shell' natural disinfecting oils to neutralise surface bacteria and viruses including Feline Coronavirus with 99% effectiveness as tested according to TGA and international standard (ASTM E 1052) for antiviral activity. What is even more remarkable is tests have shown it to be up to 77% effective in neutralizing airborne bacteria and viruses around the applied surface.

The following extract from the <u>Material Safety Data Sheet</u> details the ingredients.

Composition / Information on Ingredients

Chemical Name	Common Name	CAS No.	Content %
Silicate +		63148-62-9	1
Modified Compound			10-12
Natural Oil			
Water		7732-18-5	87-88
Lavender Oil		8000-28-0	0.1

Technical Summary

Product Name: NWK A-FV Sterilisation, Antimicrobial and Stench Remover. A complex manipulation of near atomic level structures produces a new material made up of Silicate and Modified Compound Natural Oil. The results as tested are:

- COVID-19 Sterilisation: 99.0% effectiveness on surface within 2 hours using sample of Feline Coronavirus (FCoV) with ongoing effectiveness lasting 1-3 months (ASTM E 1052 - TGA and International standards to determine antiviral activity)
- COVID-19 Sterilisation: Neutralise up to 77% of airborne sample of Feline Coronavirus (FCoV) even after 28 days post surface application
- Kill Germs and Bacteria (Colon Bacillus, Staphylococcus Aureus, Pneumococcus): 99.9% within 24hours
- Removes stench (Ammonia, Acetate): 99.9% within 24hours
- Human Skin Irritation Testing: Non-irritating after 24hours

How the product works

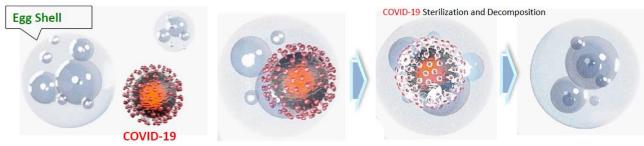
The product can be applied as a spray or roll-on to clothing, bedding, textiles, curtains, carpets, walls and ceilings and other fabric surfaces, then allowed two (2) hours to bond and activate. The solution will not change the targeted surface.

As temperature changes, disinfectant oils in these 'egg-shells' are continuously released to kill microorganisms, viruses, bacteria whilst deodorising the surrounding air. It has been shown in tests to kill the Feline Coronavirus. The effect from NWK A-FV semi-permanent bond to applied surfaces begins to take

effect 2 hours after application and the **ongoing effect** lasting a minimum of 28 days. Test results have shown the long-lasting disinfectant properties lasts up to 3 months. The following illustrates the patented 'egg-shell' nanotechnology.

■ Smog Spray Coating



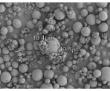


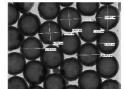
O Egg Shell?

• There are three types of egg shells in μ m sizes, which responds to heat in the atmosphere. According to the Le Chatelier enthalpy principle, oil in such egg shells continuously comes out to kill various microorganisms floating in the air.

*It would be possible to extend the sterilization period from 1 year to 3~4 years just by adjusting the size and thickness of the egg







Picture Showing Nano Particle Sterilizi Egg Shells (50,000 Magnification)





Spray

egg Snell Attachmen

Application and Maintenance

The product can be applied as a spray or roll-on as described.

■ Spray Type

- Portable Spray: for beddings, textiles, clothes, carpets, couches, sports items and others
 - → Pull the spray gun 20~30cm away from the target, and the amount of 30~40 µm is applied when sprayed once.



	Product Name	COVID-19 Sterilization, Antimicrobial and Stench Remover	Note	
	Туре	Spray Type		
	Capacity	300ml	Refill: 1ℓ, 4ℓ, 10ℓ, 20ℓ	
	Sterilization	COVID-19(99.0%/2hr)		
Use	Antimicrobial	Colon Bacillus, Staphylococcus Aureus, Pneumococcus(99.9%)		m
	Stench Removing	Ammonia, Acetic Acid(99.9%/2hr)		
N	Main Substances	A complex compound made up of Silicate + Modified, Compound Natural		7
Е	xpiration Period	1 Year after being manufactured		
	Call Center	+82-31-734-0350		

■ Large Size (by using equipment)



O Large Size (2~5 meters of spray distance): public, education, medical and social welfare facilities, companies (offices), accommodations, houses, and religious and commercial facilities

The product can be reapplied by spraying or rolling on.

[→] Spray to ceilings and walls at a distance of 2~5 meters by using an ultrafine particle smog sprayer (see the photos).

Testing Conducted

COVID-19 Sterilisation Agent

Surface Test

NWK A-FV product was tested by the Korean Research Institute of Bio Medical Science to evaluate the effectiveness of neutralising Feline Coronavirus (FCoV) according to International and TGA standard (ASTM E 1052) for anti-viral activity confirmed a 99.0% effectiveness over a period of 2 hours with ongoing effect lasting minimum of 28 days. ASTM E 1052 is the TGA and international Standard Test Method to Assess the Activity of Microbicides against Viruses in Suspension, see the surface test: Determination of antiviral activity (ASTM E1052).



6, Daeheung-ro 28beon-gil, Jung-gu, Daejeon, Korea

Test Report



Report No. 2021KRIB81449.002

Issued Date : 2021, 10, 15,

: NAEWOIKOREA Co., LTD. Client

Sample No. : 1

: NWK A-FV 2 Sample Description

Analysis : Determination of antiviral activity (ASTM E1052)

Result

- 1. Method: Modified ASTM E1052
- 2. Virus : Feline coronavirus (FCoV)
- 3. Host cell : CRFK cell
- 3. Test condition : 2-hour contact time, 25±1 °C

Tested

Commis	R	esult
Sample	Log reduction	Antiviral activity(%
NWK A-FV 2	2.00	99.00
etails please see attache	d names	

confirmation

1. The test results on this report are only limited to the samples and sample names provided by the customer and KRIBS do not guarantee the quality of all products of the customer.

Approved

2. This test report shall not be used for public relation, advertisement, lawsuit and any other purposes outside the scope of its defined usage.

Korea Research Institute of Biomedical Science

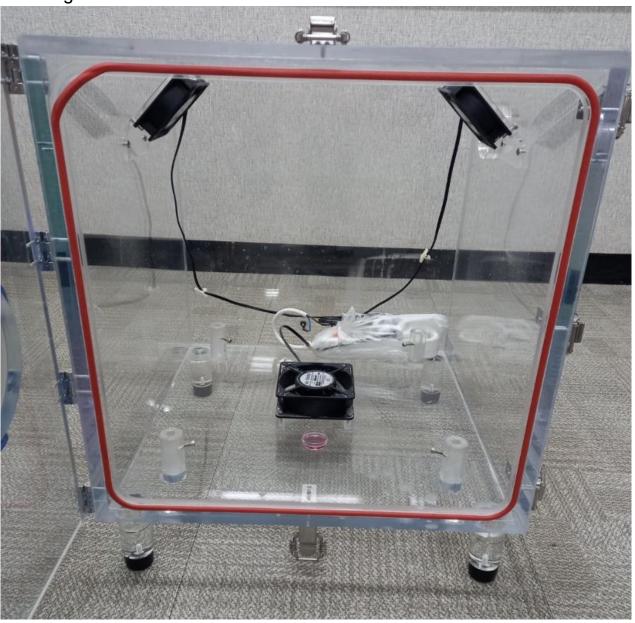


[KRIBG-DF11-REV.A]

See the Report No. 2021KRIBS1449.002

Aerosolised Test

The Korean Research Institute of Bio Medical Science and manufacturer constructed a chamber to test the effectiveness of NWK A-FV against aerosolised airborne Feline Coronavirus. Once sprayed with the NWK A-FV product and allowed to act by releasing disinfectant oils for 2 hours, the aerosolised test results confirmed an effective reduction of airborne virus by 68.38%, meaning an overall antiviral activity (reduction of virus particles.) The following illustrates the chamber used.



The test results are summarized below.



6, Daeheung-ro 28beon-gil, Jung-gu, Daejeon, Korea Phone: 042-716-2310 Fax: 042-716-2309

Test Report



Report No. 2021KRIBS1513.0001

page 1 of 3

Issued Date : 2021. 11. 29.

Client : NAEWOIKOREA Co., LTD.

Sample No.

: NWK A-FV 2 Sample Description

Analysis : Determination of antiviral activity

Result

1. Virus : Feline coronavirus (FCoV)

2. Host cell : CRFK cell

chamber size : 53 x 54 x 54 cm³

3. Test condition : 2-hour contact time, 25±1 °C

O comple	F	lesult
Sample	Log reduction	Antiviral activity(%)
NWK A-FV 2	0.50	68.38

* For details please see attached pages

confirmation	Tested by	Hye-sun Yun	Approved by	Moon Change
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Note.

- 1. The test results on this report are only limited to the samples and sample names provided by the customer and KRIBS do not guarantee the quality of all products of the customer.
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Korea Research Institute of Biomedical Science





[KRIBS-DE11-REV.A]

Ongoing Long-lasting Residual Effect (4 Weeks)

Result of 4 weeks ongoing floating test result conducted by Korea Institute of Medical Sciences has shown reduction in viral load of 77.6%.



6, Daeheung-ro 29beon-gil, Jung-gu, Daejeon, Korea

Test Report



Report No. 2021KRIB\$1605.0001R01

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: 2022. 03. 08. Issued Date

Client : NAEWOIKOREA Co., LTD.

Sample No.

Sample Description : NWK A-FV 2

Analysis : Evaluation of float-virus reduction for NWK A-FV 2

Result

1. Virus : Feline coronavirus (FCoV)

2. Host cell: CRFK cell

3. chamber size: 80 x 50 x 50 cm⁸

3. Test condition: 4 weeks of Sample processing period in chamber,

2-hour contact time, 25±1 °C

4. Result

		Res	sult	
Sample	Control (log TCID ₆₀)	2-hour contact time(log TCID ₆₀)	Log reduction	Persent reduction (%)
NWK A-FV 2	4.14	3.49	0.85	77.61

* For details please see attached pages.

confirmation Tested Hye-sun Yun	Approved	Moon Change
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- 1. The test results on this report are only limited to the samples and sample names provided by the customer and KRIBS do not guarantee the quality of all products of the customer.
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Korea Research Institute of Biomedical Science





[KRIBS-DF11-REV.A]

ANTIMICROBIAL BACTERIA TESTING

Result of Testing Colon Bacill, Staphylococcus Aureus and Pneumococcus using AATCCTM 100:2019 antimicrobial tests conducted by KOTITI has confirmed a 99.9% sterilising effect.

(Test: Oct. 22, 2021)

Test Items	Unit	Test Results		Note	
• Colon bacill (After 24h)	%	99.9			
• Staphylococcus aureus (After 24h)	%	99.9	7 A-		
Pneumococcus (After 24h) (Klebsiella pneumoniae)	%	99.9	1		

The test results of antimicrobial.

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Antibacterial Test (AATCC TM 100:2019)

Test Conducted		Test Results	
(A)	Staphylococcus aureus	Klebsiella pneumoniae	Escherichia coli
Original			
A	< 100	< 100	< 100
С	2.0 × 10 ⁷	2.3 × 10 ⁸	1.8 × 10 ⁸
Reduction(%)	99.9	99.9	99.9
В	2.9 × 10 ⁵	2.2 × 10 ⁵	1.9 × 10 ³
Bacteriostatic Reduction Value(%)	99.9	99.9	99.9

Note) * Bacteriostatic reduction rate(%): (C-A) X 100/C, Bacterioidal reduction rate(%): (B-A) X 100/B A: The number of bacteria recovered from the inoculated treated test specimen swatches in the jar incubated over the desired contact period B: The number of bacteria recovered from the inoculated treated test specimen swatches in the jar immediately after inoculation: (at "0" contact time) C: The number of bacteria recovered from the inoculated untreated test specimen swatches in the jar incubated

over the desired contact period

Test Organism Staphylococcus aureus(ATCC 6538)

Klebsiella pneumoniae(ATCC 4352)

Escherichia coli(ATCC 25922)

Viability control(Log) 1.9 / 3.1 / 3.0 Sample size 4.8 cm diameter Neutralizer Dey Engley broth Dilution medium 0.85% Saline solution

Nutrient agar Media used

The number of swatches usde per jar 2 Reduction (%)

The number of bacteria recovered from the inoculated treated test specimen swatches in the jar incubated over the desired contact period.

The number of bacteria recovered from the inoculated treated test specimen swatches in the jar immediately after inoculation: at "0" contact time.

Test specimens sterilization not performed (customer request)

The test results of deodorization tests are provided

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Deodorization Efficiency, mg/kg (JTETC Method(JAPAN))

Test Conducted	Test	Results
(A)	0 Hour	After 2 Hour(s)
Submitted State(Concentration of ammonia gas(NH ₂), mg/kg)		
Blank	100.0	98.7
Sample	100.0	0
Reduction(%)	-	99.9
ubmitted State(Contentration of cetic acid gas(CH₃COOH), mg/kg)		
Blank	30.0	29.3
Sample	30.0	0
Reduction(%)	-	99.9

Test method

Put specimen 10 cm × 10 cm into 5 L of tetrabag and inject 3 L of test gas. Then, measure the gas

concentration using detector tube after 2 Hour(s).

Detector tube NH₂ -3La (GASTEC)

FDA Registration

The product has been registered with the Food and Drug Administration (FDA) in the United States as a medical device antimicrobial agent (Registration Number: 10080973).

