

VIRAL-SHIELD

FORTIFIED WITH SILVER AND COPPER NANOPARTICLES

LEGIONELLA-X VIRAL-SHIELD MINIMIZES CORONAVIRUS RISKS IN FOOD & BEVERAGE ESTABLISHMENTS

Legionella-X Viral-Shield provides 99.9998% residual inactivation efficacy against Positive-gram bacteria, Negative-Gram Bacteria and Enveloped Viruses up to 60 days on all inanimate surfaces



Passed Japan Industrial Standard- JIS Z 2801:2010/A1 2012 Test Method for Antibacterial Activity and Efficacy



Introduction

Grappling with the Coronavirus has been a constant learning process for epidemiologists, doctors, patients, governments and individuals. Some things we thought we knew have changed as more data arrives and more countries study its effects.

The coronavirus that causes COVID-19 mainly spreads from person to person. When someone who is infected coughs or sneezes, they send droplets containing the virus into the air. A healthy person can then breathe in those droplets. We may also catch the virus if we touch a surface or object that has the virus on it and then touch our mouth, nose, or eyes.

The coronavirus can live for hours to days on surfaces like countertops and doorknobs. How long it survives depends on the material the surface is made from.

The family of viruses that includes the one that causes COVID-19 can live on some of the surfaces we probably touch every day.

Dining in the wake of Covid-19

Food and beverage business owners have been busy gearing up to reopen for dine-in during phase two of the post-circuit breaker, which could happen before the end of the month.

As Singapore prepares to resume dining in Phase 2 post-circuit breaker allow up to five people a table and this could happen before the end of June - it is time to think about how we can improve hygiene standards.

Most restaurant will be compelled to install plastic shield as a form of physical barrier as shown in the picture below to assure the safety of dinners, however, covid-19 virus will linger on the plastic shield for up to three days once landed after a visit by asymptomatic patient according to a research by Rachel Graham, an epidemiologist at the University of North Carolina, smooth, nonporous surfaces like doorknobs and table tops are better at carrying viruses in general.

In view of the above Legionella-X Viral Shield fortified with silver and copper nanoparticle was developed to provide up to 60 days of residual inactivation against enveloped viruses and bacteria.



Description

Legionella-X Viral-Shield fortified with Silver and Copper Nanoparticles is a potent water-based disinfectant coating specially developed to provide lingering disinfecting effect to on all inanimate surfaces.

It provides up to 60 days disinfecting efficacy on all coated surfaces and is most ideal to be used on sheltered public places and public transports such as MRT Trains, Taxis, Buses, etc.

It has a killing efficacy of up to 99.9998% to 99.99994% against positive-gram, negative-gram bacteria and enveloped viruses.

It is non-flammable making it safe to be used in enclosed areas even near hot-working -areas.

Benefits

- Passed JIS Z 2801:2010 /A 1:2012 Test.
- Disinfecting Efficacy up to 99.99994%
- Effectively kills positive-gram, negative-gram bacteria, and enveloped viruses
- Provides up to 60 days of disinfecting efficacy for all inanimate surfaces after coated with Viral Shield.
- Non-Flammable
- Water-based facilitates indoor usage.
- Pleasant lingering fragrance.

TEST REPORT: 7191237543-CHM20-RC

Date: 21 MAY 2020 Tel: +65 68851345 Fax: +65 67732912

Client's Ref: Email: Randy.CHIN@tuv-sud-psb.sg

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.

SUBJECT
Antibacterial Activity Evaluation

CLIENT
Magna International Pte Ltd
10H Enterprise Road
Singapore 629834
Attn: Nelson Cheng


SAMPLE SUBMISSION DATE / TEST DATE
04 May 2020 / 05 May 2020

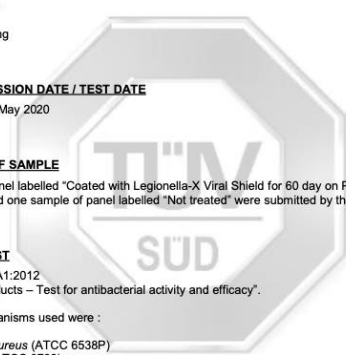
DESCRIPTION OF SAMPLE
One sample of panel labelled "Coated with Legionella-X Viral Shield for 60 day on PET plastic sheet (Batch No. 20/01/03)" and one sample of panel labelled "Not treated" were submitted by the above company.


METHOD OF TEST
JIS Z 2801:2010/A1:2012
"Antibacterial products – Test for antibacterial activity and efficacy".

The test microorganisms used were :
Staphylococcus aureus (ATCC 6538P)
Escherichia coli (ATCC 8739)

Size of Treated Sample: 5 cm x 5 cm
Size of Untreated Sample: 5 cm x 5 cm
Size of film: 4 cm x 4 cm polyethylene film
Volume of test inoculum : 0.2 ml


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 Add value.
 Inspire trust.





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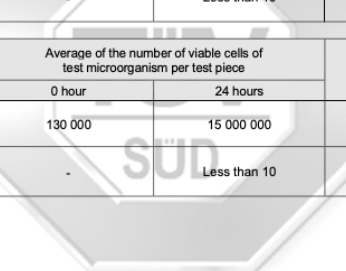
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21 MAY 2020


 PSB Singapore

RESULTS

Test microorganism (Bacterial cells inoculated per test piece)	Average of the number of viable cells of test microorganism per test piece		Value of Antibacterial Activity (Criteria : Not less than 2.0)
	0 hour	24 hours	
<i>Staphylococcus aureus</i> (ATCC 6538P)			
Control: Not treated	120 000	6 100 000	-
Sample: Coated with Legionella-X Viral Shield for 60 day on PET plastic sheet (Batch No. 20/01/03)	-	Less than 10	More than 5.78
<i>Escherichia coli</i> (ATCC 8739)			
Control: Not treated	130 000	15 000 000	-
Sample: Coated with Legionella-X Viral Shield for 60 day on PET plastic sheet (Batch No. 20/01/03)	-	Less than 10	More than 6.18



TÜV SÜD PSB TEST REPORT
JIS Z 2801:2010/A1 2012 Test Method for Antibacterial Activity and Efficacy



Typical Properties

Appearance

Translucent liquid

Viscosity

Free Flowing

Flash Point

Non-Flammable

Specific Gravity

1

Odour

Mint

Directions for Use

Apply via fogging and spraying on any inanimate surfaces, gently wipe dry.

Or apply by spraying on a piece of cloth and wipe it on any desired surfaces.

Available Packaging

110ml spray bottle

500ml spray bottle

5, 25 and 200 litres drum.

Magna

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