

LEGIONELLA-X VIRAL-KLEEN

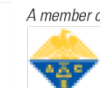
Fortified with Colloidal Silver and Copper Nanoparticles



**Water-Based Disinfectant that Disinfects, Cleans
and Deodorizes in One Operation
Diluted 1:25 Parts with Tap Water**

**Passed BSEN 1040:2005 Anti-Bacteria Activity and Efficacy
Test Method with 99.99996% Inactivation Efficacy Within
5 Minutes Contact Time and**

**BSEN 1275:2005 Test Method
with 99.9996% against Candida albicans
opportunistic pathogenic yeast.**





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.

Hence, to prevent any infections via touching the contaminated surfaces, it is only prudent for us to disinfect all surfaces as frequent as possible. Legionella-X Viral-Kleen was specially developed for said function.

Description

Legionella-X Viral-Kleen is a water-based disinfectant that synergistically blends with colloidal silver and copper nanoparticles to provide maximum inactivation efficacy against enveloped viruses and bacteria.

Legionella-X Viral-Kleen contains twin-chain quaternary ammonium compound and a proprietary synergistically blend of silver and copper nanoparticles. This powerful antimicrobial formula is effective against common bacteria and enveloped viruses such as *Escherichia coli*, *Salmonella typhimurium*, *Staphylococcus aureus*, *Streptococcus faecalis* and H5N1.

Legionella-X Viral-Kleen is a broad-spectrum bactericide, viricide and fungicide.

It is effective against the following:

BACTERIA

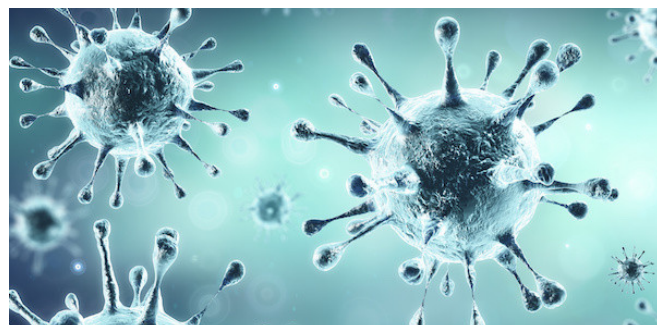
Pseudomonas aeruginosa, *Staphylococcus aureus*, *Salmonella S. choleraesuis*, *Acinetobacter calcoaceticus*, *Bordetella bronchiseptica*, *Chlamydia psittaci*, *Enterobacter aerogenes*, *Enterobacter cloacae*, *Enterobacter faecalis*, *Escherichia coli*, *Fusobacterium necrophorum*, *Klebsiella pneumoniae*, *Legionella pneumoniae*, *Listeria monocytogenes*, *Pasteurella multocida*, *Proteus mirabilis*, *Salmonella enteritidis*, *Salmonella typhimurium*, *Salmonella typhimurium*, *Serratia marcescens*, *Shigella flexneri*, *Shigella sonnei*, *Staphylococcus epidermidis*, *Streptococcus faecalis*, *Streptococcus pyogenes*

VIRUSES

HIV-1 (AIDS Virus), Herpes, H5N1, Rubella, Vaccinia, Respiratory syncytial virus, Transmissible gastroenteritis virus, Adenovirus type 4, Infectious Bovine Rhinotracheitis, Pseudorabies, Canine Distemper, Feline picornavirus, Feline leukemia, Rabies, Avian bronchitis.

Fungi

Candida albicans, *Aspergillus niger* (Mold and Mildew) and *Trichophyton mentagrophytes*.



TEST REPORT: 7191238730-CHM20-01-RC
15 JUN 2020



RESULTS

Product : Legionella-X Viral Kleen fortified with Silver and Copper Nanoparticles, for disinfecting face shield, goggles and all types plastic shield.
Sample has been diluted with 1:25 parts of tap water.

Validation and controls

Controls	Validation Suspension (Nv ₀)	30<Nv ₀ <160 (Pass / Fail)	Experimental Condition control (A)	Neutralizer control (B)	Method Validation (C) Product Concentration: Neat	B and C ≥ 0.5 x Nv ₀ (Pass / Fail)
<i>Pseudomonas aeruginosa</i> (ATCC 15442)	79	Pass	N.A.	75	90	Pass

Test Microorganism : *Pseudomonas aeruginosa* (ATCC 15442)

Contact Time / Concentration	Initial Count of Test Microorganism per ml of Test Mixture		Count of Surviving Test Microorganism per ml		Log Reduction	Percentage Kill of Test Microorganism
	CFU per ml	Log ₁₀	CFU per ml	Log ₁₀		
5 minutes Neat	23 000 000	7.36	Less than 10	Less than 1	More than 6.36	More than 99.99995

Passed BSEN 1040:2005 Anti-Bacteria Activity and Efficacy Test Method with 99.99996% Inactivation Efficacy Within 5 Minutes Contact Time

TEST REPORT: 7191238730-CHM20-01-RC
15 JUN 2020



RESULTS (cont'd)

Product : Legionella-X Viral Kleen fortified with Silver and Copper Nanoparticles, for disinfecting face shield, goggles and all types plastic shield.
Sample has been diluted with 1:25 parts of tap water.

Validation and controls

Controls	Validation Suspension (Nv ₀)	30<Nv ₀ <160 (Pass / Fail)	Experimental Condition control (A)	Neutralizer control (B)	Method Validation (C) Product Concentration: Neat	B and C ≥ 0.5 x Nv ₀ (Pass / Fail)
<i>Staphylococcus aureus</i> (ATCC 6538)	38	Pass	N.A.	34	38	Pass

Test Microorganism : *Staphylococcus aureus* (ATCC 6538)

Contact Time / Concentration	Initial Count of Test Microorganism per ml of Test Mixture		Count of Surviving Test Microorganism per ml		Log Reduction	Percentage Kill of Test Microorganism
	CFU per ml	Log ₁₀	CFU per ml	Log ₁₀		
5 minutes Neat	20 000 000	7.30	Less than 10	Less than 1	More than 6.30	More than 99.99995

Passed BSEN 1040:2005 Anti-Bacteria Activity and Efficacy Test Method with 99.99996% Inactivation Efficacy Within 5 Minutes Contact Time

TEST REPORT: 7191238730-CHM20-02-RC
15 JUN 2020



RESULTS

Product : Legionella-X Viral Kleen fortified with Silver and Copper Nanoparticles, for disinfecting face shield, goggles and all types plastic shield.
Sample has been diluted with 1:25 parts of tap water.

Validation and controls

Controls	Validation Suspension (Nv ₀)	30<Nv ₀ <160 (Pass / Fail)	Experimental Condition control (A)	Neutralizer control (B)	Method Validation (C) Product Concentration: Neat	B and C ≥ 0.5 x Nv ₀ (Pass / Fail)
<i>Candida albicans</i> (ATCC 10231)	60	Pass	N.A.	70	66	Pass

Test Microorganism : *Candida albicans* (ATCC 10231)

Concentration / Contact Time	Initial Count of Test Microorganism per ml of Test Mixture		Count of Surviving Test Microorganism per ml		Log Reduction	Percentage Kill of Test Microorganism
	CFU per ml	Log ₁₀	CFU per ml	Log ₁₀		
15 minutes Neat	2 800 000	6.45	Less than 10	Less than 1	More than 5.45	More than 99.9996

BSEN 1275:2005 Test Method with 99.9996% against *Candida albicans* opportunistic pathogenic yeast.



Benefits

- Broad-Spectrum bactericide, viricide and fungicide, minimizes inventory of disinfectants.
- Tested against live H5N1 Virus.
- Effective against positive and negative-gram bacteria.
- Water-based reduces fire risks.
- Economical- Can be diluted up to 25 parts with tap water.
- Non-flammable
- 99.99996% Inactivation efficacy against enveloped viruses and bacteria when diluted with 25 parts of water.
- Passed BSEN 1040: 2005 Anti-bacteria activity and efficacy.
- 99.9995% Inactivation efficacy against Candida albicans pathogenic yeasts after diluted with 25 parts of water.
- Passed BSEN 1275: 2005 Test Method against pathogenic yeasts.

Directions for Use

Dilute up to 25 parts with water before use. By means a ULV fogger, fog generously on all inanimate surfaces.

If ULV fogger is not available apply Legionella-X Viral Kleen via a bottle and sprayer.

Legionella-X Viral Kleen can be applied on all surfaces.

Areas of Use

Clinics, hospitals, offices, dormitories, restaurants, schools, toilets, public trains, buses, taxis, ships, camps shopping malls etc.

Typical Properties

Appearance:
Transparent Liquid

Viscosity:
Free Flowing

Color:
Colorless

Specific Gravity:
1.0

Flash Point:
Non-Flammable

Odor:
Lavender

Available Packaging

5 litres , 25 litres and 200 litres drum

Magna

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