



GVC

Product name

**For Spraying on Masks
Inorganic Virus Inactivation Agent
Patent Pending**

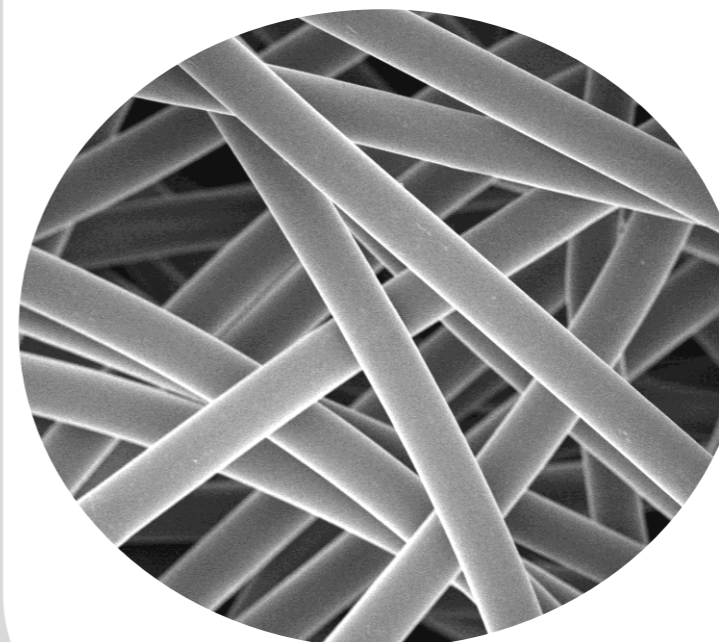
■ **Inactivate Virus accumulating on surface of masks quickly and continuously.**

■ **99.3% reduction in 1 min.**

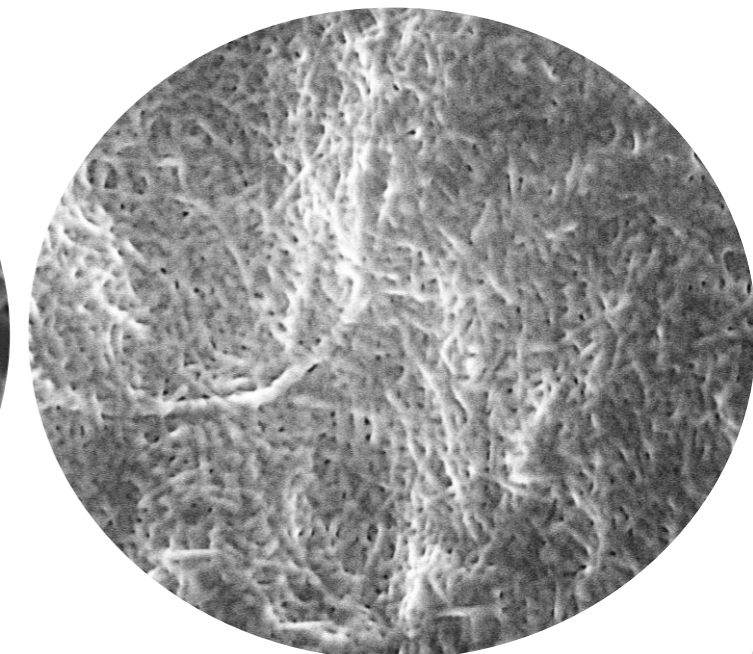
■ **99.9% reduction in 10 min.**

GVC becomes 10~30 nano meter mesh shape after spray on surface of mask.

Without GVC X500



With GVC X50000



■ **Block virus incoming into mouth and nose**

Safety :GHS Classification/
Acute Oral Toxicity Test Not Classified
Acute Skin Irritation Test Not Classified
Acute Eye Irritation Test Not Classified

Definition of Classified in this case:
In GHS regulation concerning hazardous classification, there is sufficient evidence is found that it does not fall under any category of hazards

Application :Spray to Mask, Protection Wear, Filter, Fabric Products
Usage :For mask and protective wear, spray GVC on outside surface and let it dried] before use. Use hair dryer if in a hurry.
Precaution :Do not use of other purpose than directed.
Do not place in the reach of children.
Do not spray to face
(keep a proper distance to avoid direct spraying to eyes, nose and mouth).
First Aid :Rise with running water immediately when it entered into eyes.
Rinse (avoid vomiting) the mouth with water and drink clean water when swallowed.
Storage: In cool and dark place.

Technical data :Liquid
Appearance :Lightly white cloudy
Color :Lightly white cloudy
Odor :Odorless
Main Components :Sodium Metasilicate (Active component of inactivation), Cellulose Nano Fiber, l-tartaric Acid, Alkyl Glycoside 0.4%, Purified Water,
Non-Volatile Matter : <7%
pH : <12%

Disinfection Effect Against New Corona Virus :
National Institute of Technology and Evaluation (NITE) confirmed, according to their verification tests among those surfactants which were known as effective to New Corona Virus, that Alkyl Glycoside (Over0.1%) was found to be effective to disinfect New Corona Virus.

The verification test by National Institute of Infectious Diseases:
Confirmed the infectivity reduction rate of 99.999% or above in 20 sec with 0.05%.
The verification test by Kitasato University:
Confirmed inactivation effect in 1 min. with 0.1%

■ **S7SUC-V-0-GV Contains <3.0% of Alkyl Glycoside**

Select right product for right purpose among products stipulating disinfection control measures against New Corona Virus.
<https://www.meti.go.jp/press/2020/06/20200626013/20200626013-1.pdf>

New Corona Virus Measures
Surfactants containing in detergents eliminate New Corona Virus.
<https://www.meti.go.jp/press/2020/06/20200626013/20200626013-3.pdf>

Supervise : AIREX Co., Ltd.,
Tokai University Academic-Industry Collaboration Testing Laboratory

Grafton Inc. <https://www.grafton-gr.com/>

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■ The effectiveness of masks against virus is being asked

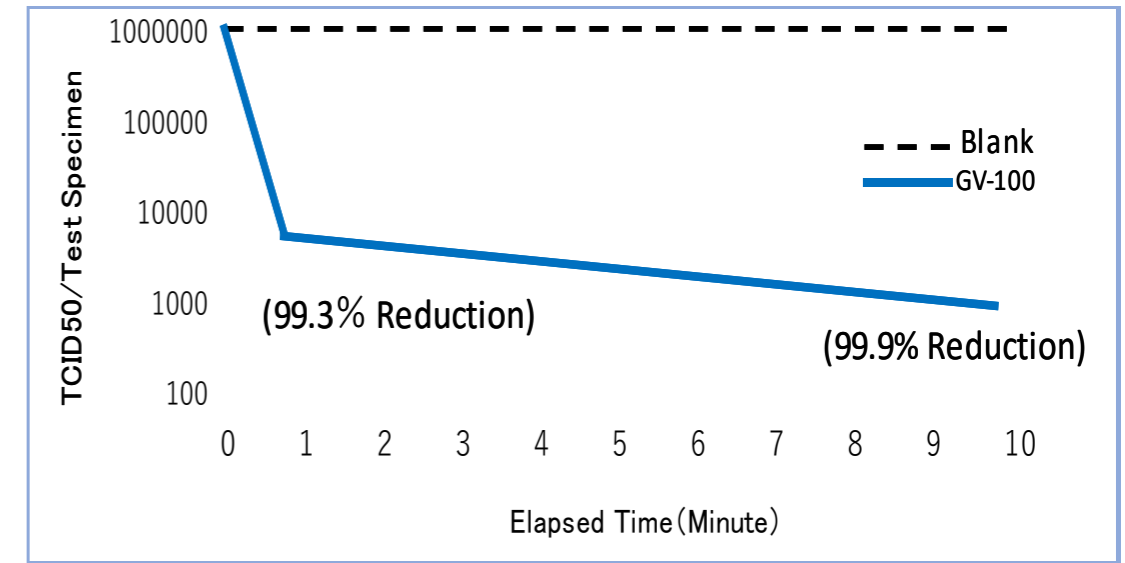
- Virus is easily passing through disposable masks.
- Virus and droplets accumulated on mask become cluster form.
- May inhale large amount of accumulated virus and droplets.

■ The correlation of mass exposure to virus and progression are being indicated.

AIM

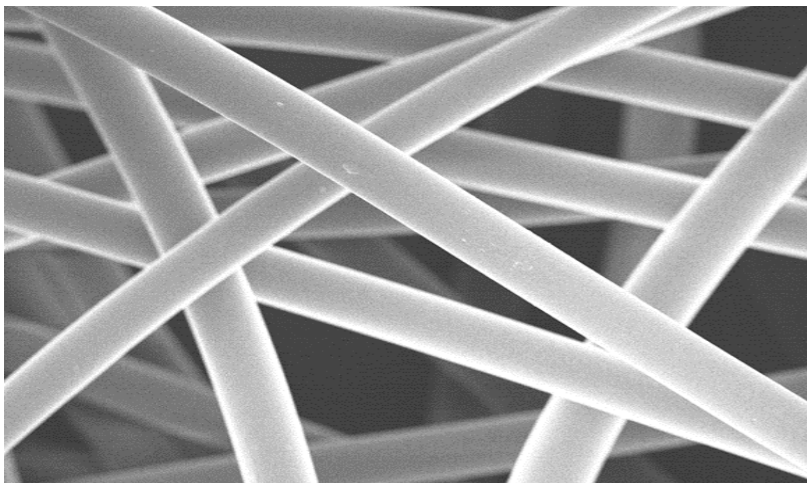
- GVC inactivate s quickly the virus adhered on surface of Masks, Wears and Other Textile Products with continuous effects.
- Contained cellulose nano-fiber create multilayered mesh, 10-30 nm in size, to block the Virus, over 50 nm, passing through the masks.
- As result,GVC protects the virus from accumulating on surface of masks.
- GVC also restraints from aspiration of the dried virus floating from masks.

【GVA-100】Processed Cotton Cloth SARS-CoV-2 Result of Inactivation Efficiency Test

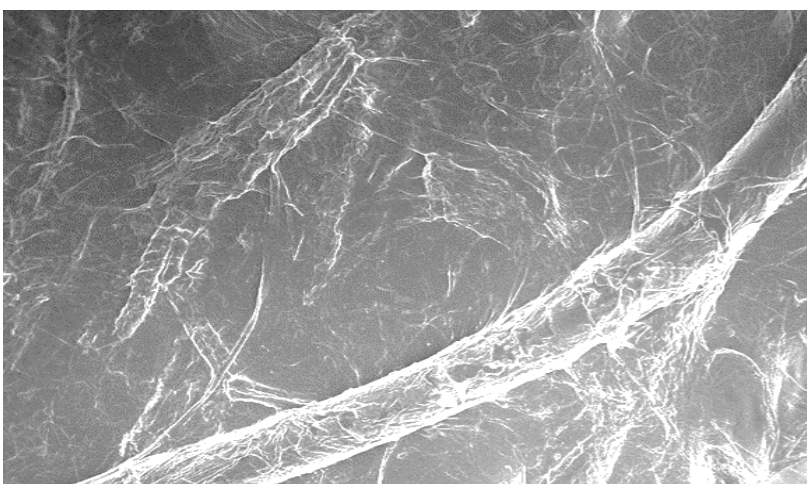


Test Virus : SARS-CoV-2 [Test specimen: Coated 4 months before the test]
GVA-100 (Liquid) on cotton
 ■ 99.3% reduction in 1 min. ■ 99.9% reduction in 10 min.

Extended images after spraying GVC on disposable non-woven poly-olefine masks



Blank non-woven mask X500



After GVC sprayed & dried X500



Cedar Pollen 30~40 micron



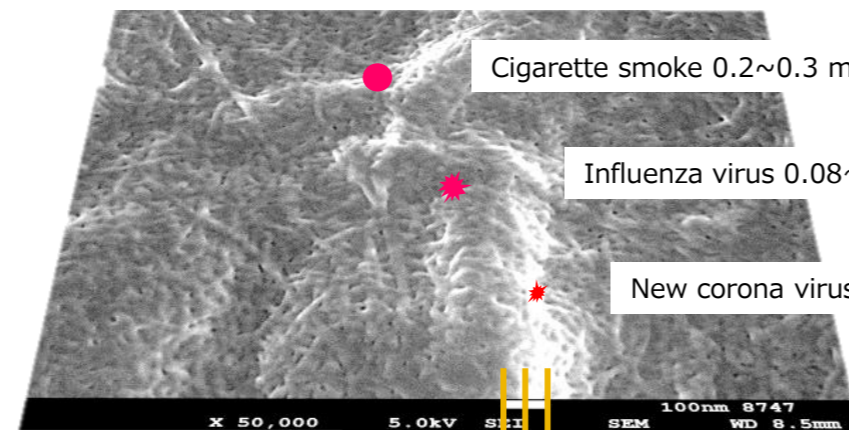
Yellow sand 4 micron average
PM2.5 Under 2.5 micron



Droplet nuclei materials
under 0.3 micron

Comparison of GVC-Nano Filter and fine particles

1 micron = 1000 nano meter (nm)



Cigarette smoke 0.2~0.3 micron

Influenza virus 0.08~0.12 micron

New corona virus (SARS-CoV-2) 0.05~0.2 micron

- GVC on surface of mask after drying**
- Become 10~30 nm mesh shape.
 - Block virus incoming into mouth and nose.
 - Sprayed GVC inactivate accumulating virus consecutively.

N95 Mask spec.
Spec. standard of respiration apparatus
Protection tools. Over 95% collection of
0.3 micron collection efficiency test.

Formaldehyde
About 0.00052 micron
Floating in multiple bonded form

■ GVC Filter = 0.01~0.03 micron mesh (10~30nm)

100 nano meter scale image 50 50 nano meter (0.05 micron)