

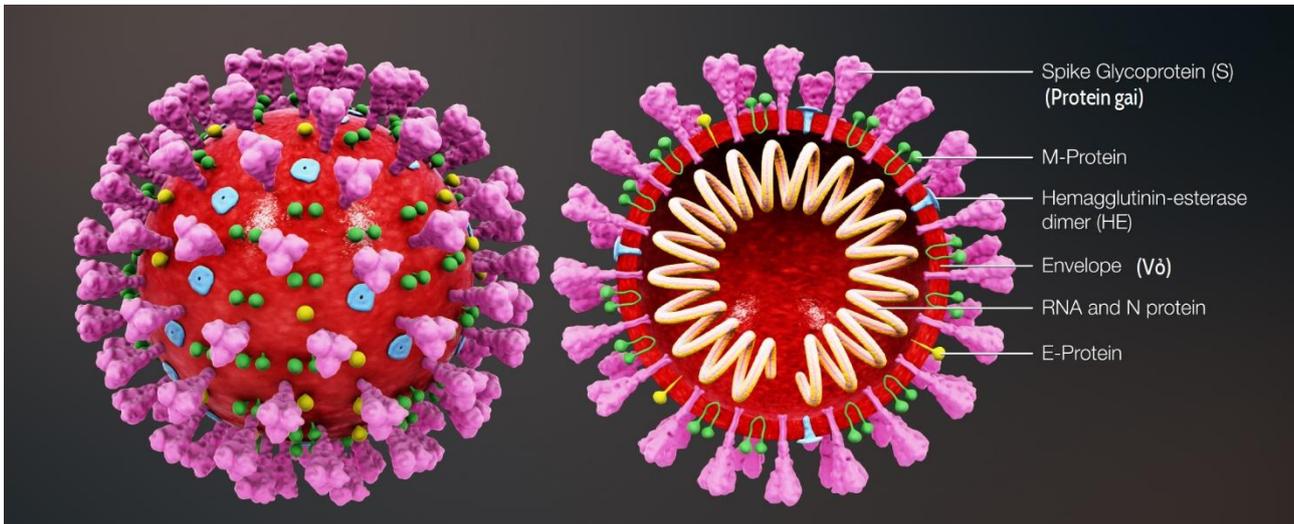
Belimed Protect™ Disinfecting Products

Fact Sheet

Belimed AG, Zug, Switzerland
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What is the so called SARS-CoV-2?

SARS-CoV-2 is the most recently discovered relevant coronavirus strain and the infectious agent causing the COVID-19 disease. Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe courses of disease.

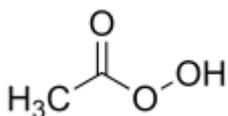


3D medical illustration of 2019 Novel Coronavirus

The image above shows the structure of SARS-CoV-2 derived from a CDC released image. It explains the ultrastructural morphology. This virus has four surface proteins E, S, M & HE labelled in the image. The S protein gives the crown-like appearance, for which the virus is named. The cross-section shows the inner components of the virus.

Belimed Protect™ Disinfectant products have different abilities to tackle enveloped viruses such as SARS-CoV-2 and break them down. In the following section we would like to explain to you how our products can successfully inactivate the SARS-CoV-2 virus.

Belimed Protect™ PAA15



Peracetic acid or peroxyacetic acid (PAA) is an oxidizing agent that functions through denaturation of protein, disruption of virus envelope and oxidation of sulfhydryl and sulfur bonds in proteins.

To inactivate SARS-CoV-2 with Belimed Protect™ PAA15 we recommend the following settings:

Temperature	Time	Concentration
20 °C	5 Minutes	1 %

Belimed Protect Glutaraldehyde

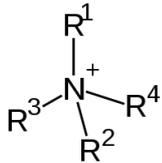


Our Belimed Protect™ Glutaraldehyde has similar as the PAA the ability to disrupt cell membranes. The biocidal activity of glutaraldehyde results from its alkylation of sulfhydryl, hydroxyl, carboxyl, and amino groups, which alters RNA.

To inactivate SARS-CoV-2 with Belimed Protect™ Glutaraldehyde we recommend the following settings::

Temperature	Time	Concentration
20 °C	5 Minutes	1 %

Belimed Protect Cleaner & Disinfectant



Also Belimed Protect™ Cleaner & Disinfectant which contains quaternary ammonium compounds has effects indicated by the inactivation and/or denaturation of essential proteins and/or disruption of the virus envelope.

To inactivate SARS-CoV-2 with Belimed Protect™ Cleaner & Disinfectant we recommend the following settings:

Temperature	Time	Concentration
55 °C	2 Minutes	0.5 %

References:

www.who.int

Image from : https://commons.wikimedia.org/wiki/File:3D_medical_animation_coronavirus_structure_vie.png

David E. Freeman, Jörg A. Auer, in Equine Surgery (Fourth Edition), 2012

<https://basicmedicalkey.com/disinfectants-and-antiseptics-modes-of-action-mechanisms-of-resistance-and-testing-regimens/>

<https://www.cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/chemical.html#Glutaraldehyde>