



PERACETIC ACID AND INACTIVATION OF CORONAVIRUS

**HIGH BIOCIDAL CAPACITY
FOR THE REMOVAL OF COVID-19**

RECOMMENDED BY THE WHO

RESEARCH AND DEVELOPMENT

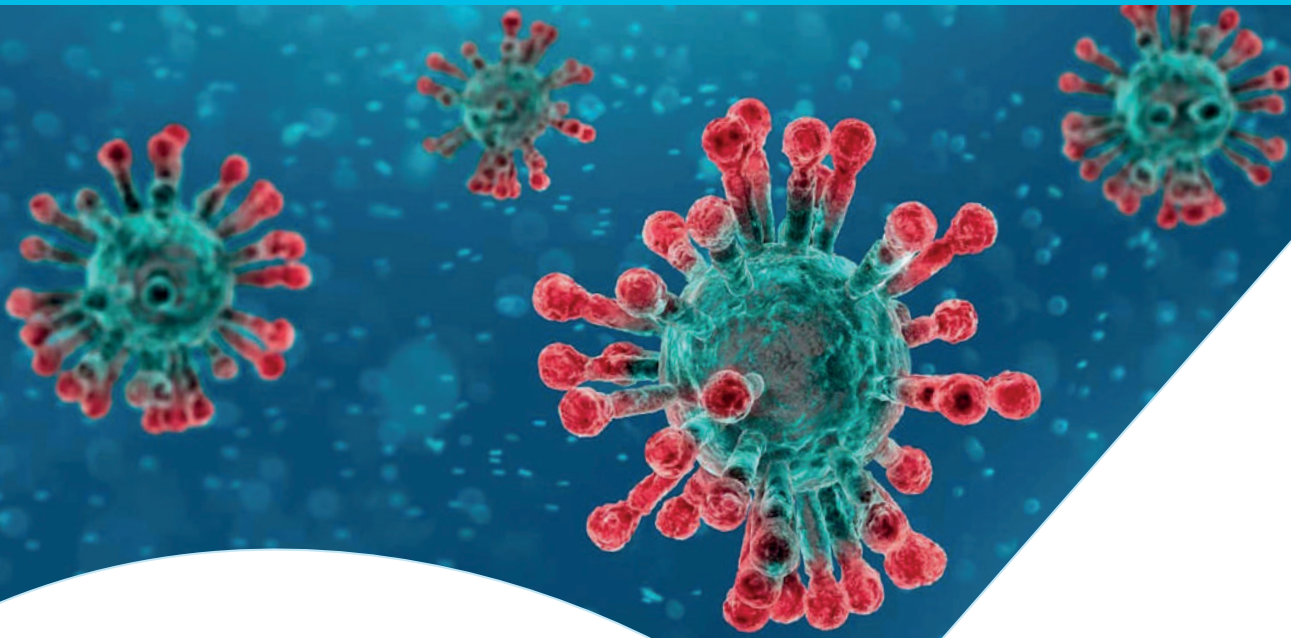
WIDE RANGE OF SAFE AND STABLE PRODUCTS

FEEL SAFE WITH US



CHRISTEYNS

FOOD HYGIENE



PERACETIC ACID AND INACTIVATION OF CORONAVIRUS

The current coronavirus pandemic (COVID-19) is caused by the SARS-CoV-2 virus, an encapsulated coronavirus consisting of a single strand of RNA, which is transmitted primarily by air from infected people and through contact with surfaces. For this reason, surface disinfection is, together with personal hygiene and protection measures, a priority strategy in the fight against the pandemic, as they limit contagion.

Surface disinfection must be extreme both in production, distribution and retail facilities, and in all spaces such as corridors, floors, offices, toilets, changing rooms, vehicles, etc. Suitable biocidal products must be used to inactivate the coronavirus, including disinfectants based on peracetic acid.

Peracetic acid (PAA) is an excellent antimicrobial agent that is very effective against a wide range of microorganisms and can be used in multiple applications, such as disinfection, bleaching, technological adjuvant and water treatment, among others.

It can be used both for closed systems and open surfaces in food industries and livestock farms. It can also be used as an environmental disinfectant.

In scientific literature, as well as in the recommendations recently issued by different health authorities, it is possible to find data regarding the efficacy of the active substances present in PAA-based products (PAA) against SARS-CoV-2. This is because these tests have been carried out against encapsulated viruses, such as SARS-CoV-2, against other comparable coronaviruses or under conditions that confirm generic virucidal efficacy. The table below shows the data available in literature, as well as official recommendations.

RANGE OF DISINFECTANTS

At CHRISTEYNS we develop customized cleaning and disinfection procedures for our clients. The choice between the different products is determined by various factors. The CHRISTEYNS technical service will give you advise on the most suitable product, as well as on the ideal application conditions for each case.

CHRISTEYNS, leading European producer of peracetic acid with more than 25 years of experience, has a wide range of tested PAA products. The company works in close cooperation with industry associations such as CEFIC (European Council of the Chemical Industry). CHRISTEYNS is a founding member of the Peracetic Acid Registration group (PAR).

FOAMING PRODUCTS

MIDA® CHRIOX F2 is a foaming disinfectant based on peracetic acid for the food industry and veterinary use, respectively.

This novel formulation contains foaming and stabilizing agents that provide a stable and durable foam on the surfaces, delivering a high biocidal capacity to sanitize open surfaces.



MIDA® CHRIOX F2

ADVANTAGES:

- High biocidal capacity and broad spectrum of action, even in the presence of organic waste.
- It does not generate hazardous waste.
- Foaming or non-foaming.
- Possibility of determining the dose by conductivity.
- Use by professional personnel.
- Low cost.

VIRUCIDAL ACTION	CONTENT	TIME	SOURCE
Activity against encapsulated viruses (EN14476 - Vaccinia virus)	Peracetic acid 0.01%	1 min	(Rabenau 2010)
Limited spectrum virucidal activity (EN14476 Adenovirus and Murine Nororivurs)	Peracetic acid 0.04%	5 min	(Becker 2017)
General virucidal activity (EN14476 - Poliovirus, Adenovirus and Murine Nororivurs)	Peracetic acid 0.15%	5 min	(Becker 2017)
Decontamination of SARS-CoV-2 on surfaces	Hydrogen peroxide 0.5%	1 min	(Ministerio de Sanidad 2020)
Activity against human coronavirus (HCov 229E)	Hydrogen peroxide 0.5%	1 min	(Kampf 2020)

The table shows the data available in literature, as well as in official recommendations.

NON-FOAMING PRODUCTS

The virucidal efficacy of MIDA® CHRIOX 5 has been tested against Adenovirus, Influenza H1N1, Influenza H5N2, Poliovirus and Vaccinia virus, by means of the tests EN 14476 (Quantitative suspension test for the evaluation of viricidal activity). The test on Vaccinia

virus indicates efficacy against encapsulated viruses. The viricidal capacity of MIDA® CHRIOX 15, a product similar to MIDA® CHRIOX 5 but with a higher concentration, can be deduced from the tests carried out with the latter.



MIDA® CHRIOX 5



MIDA® CHRIOX TS5

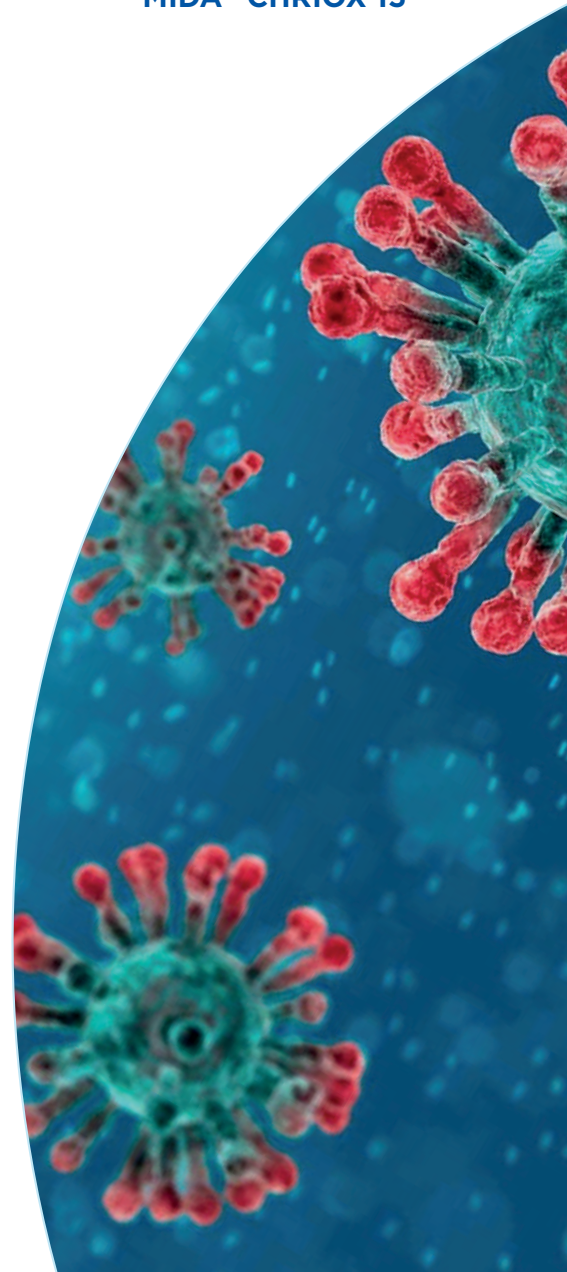


MIDA® CHRIOX 15

READY TO USE

MIDA® CHRIOX SPRAY is a ready to use surface disinfectant. Suitable for food industry and environmental use. Packaged in spray format for easy application. Bactericidal and yeasticidal (or levurocidal) activity. Suitable for the elimination of coronaviruses from surfaces. **MIDA® CHRIOX SPRAY** shows activity against Adenovirus and Murine Norovirus under EN14476 (5 min, dirty conditions). This result indicates that **MIDA® CHRIOX SPRAY** is effective against coronavirus.

PHAGO'SPORE is a direct application disinfectant that has been tested (EN14476) against Poliovirus, Adenovirus and Murine Norovirus, showing general viricidal activity.



How does peracetic acid work?

PAA is a biocidal active substance resulting from the combination of hydrogen peroxide and acetic acid in water. The biocidal capacity is due to its high oxidizing power, superior to that of chlorine and chlorine dioxide. Peracetic acid destroys the outer cell membrane of the microorganisms, causing their death. For this reason, the spectrum of action of peracetic acid is very broad against bacterial and fungal pathogens, as well as viruses and spores. The biocidal activity of peracetic acid is less affected by the presence of organic residues or by water hardness.

The decomposition products of peracetic acid are water, oxygen and acetic acid, so the residues after disinfection are not toxic and are easily soluble in water, making it an environmentally friendly product. Peracetic acid products are available as foaming products, ideal for cleaning and sanitizing surfaces and non-foaming, suitable for circuits and other closed systems.

QUALITY CONTROL

From raw materials to production and packaging, including the transportation of the finished product, rigorous quality control procedures are applied to guarantee the maximum quality of the final product.

All products have been registered in accordance with the Biocidal Products Regulation (Regulation (EU) No. 58/2012), which is mandatory as of 1st October 2017, and have therefore undergone rigorous studies of biocidal efficacy and toxicology. To produce PAA, CHRISTEYNS has a fully automated exclusive plant, with ISO 9001 and ISO 14001 certification. The main objective of Christeyns is to manufacture very pure PAA products with optimum stability in safe conditions.



Toxicological information and safety precautions can be found in the corresponding Safety Data Sheets for each of the products in the PERACETIC ACID BASED DISINFECTANTS range, which can be requested at info@christeyns.com.

The information contained in this document is presented just for information purposes. This information can be modified without prior notice. CHRISTEYNS is not responsible for the incorrect use of its products.

MORE INFORMATION

Contact your local Christeyns representative to help you find a solution that fits your personal situation.



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