

PlasmoClean: Frequently asked questions

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1. What is cold plasma?

Cold plasma is an ionised gas consisting of different particles. Specific parts - the so-called hydroxyl radicals - have a sanitizing effect.

The production of cold plasma merely requires two distinct things: ambient air and electricity and is what is generated in our hand sanitizer named PlasmoClean.

Additionally, the act of mixing cold plasma with nebulized water increases its disinfecting effectiveness.

2. What makes the disinfection so effective?

Throughout the production of cold plasma, so-called hydroxyl radicals are formed.

The hydroxyl radicals are responsible for the disinfecting effect. An addition of nebulised water increases the effectiveness.

3. Is the technology patented?

WK-MedTec GmbH own the patent on the mixing procedure and technology of cold plasma with nebulised water.

4. Which percentage of the bacteria are eliminated?

Microbiological efficacy tests were carried out in accordance with DIN-EN1500. The tests show that up to 99.999% of the bacteria and relevant virus are eliminated.

5. Does PlasmoClean also have an effect against the coronavirus?

Properly performed hand disinfection according to EN 1500 reduces the germ load to such an extent that the remaining germs can no longer pose a potential danger.

PlasmoClean is also effective against coronaviruses.

6. In which fields of activity PlasmoClean can be used?

The device is suitable for a wide range of industries and commercial areas such as restaurants, hotels, offices, industry, public buildings, universities, schools, kindergarten, automobile dealerships, shopping malls, hairdressing salons ++. The device can also be used in hospitals and in care homes by visitors and patients.

7. Have accredited laboratories carried out the tests?

The tests were carried out by accredited and independent German laboratories. The CeCert GmbH laboratory has completed tests regarding electrical safety and electromagnetic compatibility. The laboratory Dr. Brill + Dr. Steinmann as well as HygCen Germany GmbH have carried out tests regarding the microbiological effectiveness.

8. Is the disinfection process skin-friendly?

Plasma technology is also used in premium level dermatology which means it is also known to be beneficial to skin regeneration and dermatological health.

9. Which regulations according to the electrical safety have been met?

- EN 60601-1:2006 +A1:2013
- EN60601-1-2:2015
- 2014/35/EU
- 2014/30/EU

10. How many disinfection cycles can be performed with 500 millilitres of purified water?

With 500 ml of purified water, more than 1,000 disinfection cycles can be realised.

11. Which type of water can be used?

The usage of purified water ensures that the device does not become calcified. Therefore, water with a conductivity of less than 10 $\mu\text{S}/\text{cm}$ should be used and classic distilled or demineralised water typically meets these requirements.

12. Does plasma generation produce ozone outside the limit parameters?

The device aspirates ambient air which passes through the atmospheric cold plasma source. A by-product to the process is ozone. However, the ozone emission is negligible as well as harmless and is within all legal requirements. This was confirmed by the accredited independent laboratory CE-Cert GmbH. Furthermore, the ozone decomposes immediately in the ambient air. The ozone decay process is accelerated by adding our aerosols.

13. What is the power consumption of the device?

The power consumption in standby is approx. 2.3 W. The power consumption during operation is maximal 43 W. At a usage time of 15 s, this corresponds to 0.18 Wh per usage.

14. What should be considered when transporting the device?

The water should be removed from the device using the water outlet.

15. How often should the filters on the bottom of the unit be changed?

The filters should be changed on a quarterly basis.

16. Does the unit indicate if water needs to be refilled?

The orange light flashes if water needs to be refilled.

17. Is Plasmoclean a biocidal product in accordance with the Regulation on Biocidal Products (EU 528/2012)?

Plasmoclean is not a biocidal product, as the device produce hydroxyl radicals from air which are mixed with water. The hydroxyl radicals produced do not have to be specially approved.

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