

SMARTMISTER

The smartest way to sanitise your workplace



EU-directive 1999/45/EC EU 528/2012 (BSEN 1276, 13704)

Works with Alexa



Sanitises all surfaces in the evening

Come into safe sanitised space in the morning

This proven solution has the power to prevent and control infections wherever risk occurs; in hospitals, care homes, offices using safe organic HOCl and SmartMister.

Although HOCl is the most effective disinfectant agent available, it is completely safe for to use and is kind to skin and the environment, used for more than 100 years.

Kills 99.9999%
of all known
pathogens



Organic



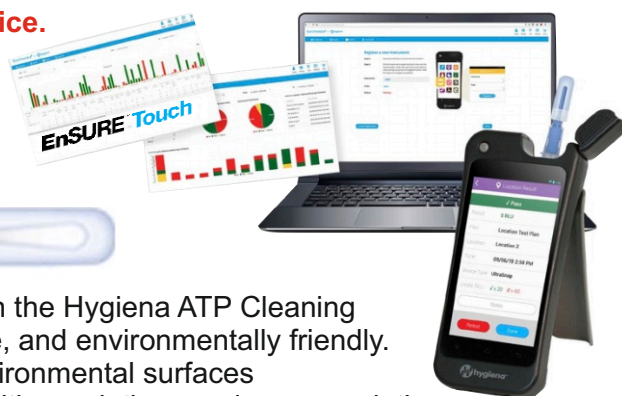
Safe to use

HOCl

EU-directive
1999/45/EC
EU 528/2012
(BSEN 1276, 13704)

Lab test to verify SmartMister is working

We can provide you with instant readings of 'cleanliness' before and after treatment using optional ATP testing unit or our in-house service.



UltraSnap™ is a user-friendly, all-in-one ATP surface test used with the Hygiena ATP Cleaning Verification System. This pen-sized collection device is easy to use, and environmentally friendly. In just 15 seconds, UltraSnap helps to verify the cleanliness of environmental surfaces and equipment. As used by NHS and others to show compliance with regulations and recommendations.



Why trust SmartMister to fight viruses and bad bacteria? How it works with our immune systems.



The smartest way to sanitise your workplace

Healthy for your skin and simultaneously tackle viruses internally and externally.

The Science

Hypochlorous acid is one of the most effective known biocides. This weak acid with the chemical name **HCIO** or **HOCl** is the same chemical produced by the human immune system to kill invasive organisms and fight infection naturally.

It's a biocide so safe for humans and animals; we already have it in our bodies.

Before explaining the science, Google "White Blood Cell Chases Bacteria" YouTube video of a white blood cell chasing down and engulfing invading bacteria.

It shows what happens when our healthy immune systems tackle an unwanted microorganism. As you will see, the bacteria don't stand a chance. Numerous studies have found this to be highly effective in the fight against germs and viruses.

So how does it work?

Simplified, we convert HOCl to a gas and warm it until it's thinner and lighter than air so the air itself distributes to all areas. Biomimicking nature using our own white blood cells (neutrophils) in the human immune system to produce hypochlorous acid this weak acid, which occurs naturally in the human body, kills invasive organisms through the myeloperoxidase-mediated peroxidation of chloride ions naturally. It also kills on contact with any surfaces like doors, walls and work surfaces.

By boosting the human immune system to produce hypochlorous acid (HOCl) to combat viruses, bacteria and other microorganisms are tackled both internally and externally simultaneously.

The solution HOCl is made through an electro-dialysis (ED) process, using salt and water no chemicals used.

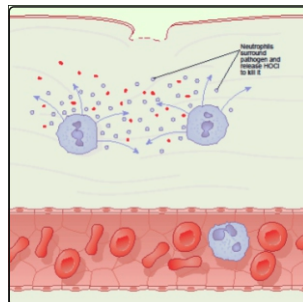
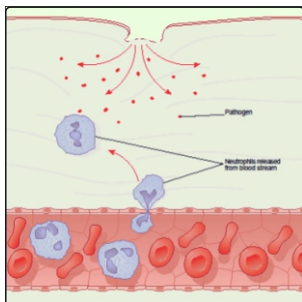
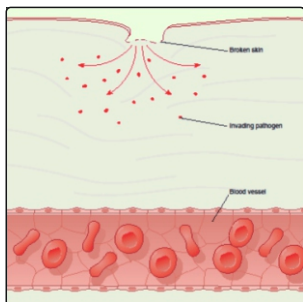
How the human immune system can be boosted

If the immune system detects an invasive organism – for example, bacteria entering the body through broken skin...¹

The immune system sends neutrophils out from the blood stream to capture the bacteria.²

Once the neutrophils have caught the bacteria, they secrete an enzyme, NADPH oxidase, which decays to produce hydrogen peroxide (H₂O₂). The hydrogen peroxide reacts with sodium chloride (salt) to produce hypochlorous acid (HOCl) and sodium hydroxide. The hypochlorous acid then oxidises the cell wall of the bacteria and kills it.³

Hypochlorous acid is one of the most efficient biocides known, and can be up to 300 times more effective than bleach.⁴



White Blood Cell Chases Bacteria

HAZARD IDENTIFICATION

No hazard under normal conditions of use, corrosive to un-painted steel.

Inhalation and skin: Non-irritating, pH 6.5 - 7.5

Fire: Not flammable.

Handling: No special precautions necessary, store in dark place

REGULATORY INFORMATION

EU-directive 1999/45/EC EU 528/2012 (BSEN 1276, 13704)

Sanitises all surfaces in the evening

Come into safe, sanitised space in the morning

Q.01 What is a SmartMister?

The SmartMister is a device that can operate overnight saturating your workplace with an organic HOCl mist containing hypochlorous acid (HOCl), a tried and tested medical / food grade disinfectant that safely and effectively sanitises every surface the mist touches, including light fittings, workspaces, behind cupboards and other hard-to-reach areas, killing 99.9999% of bacteria spores and viruses in compliance with NHS recommendations and EU regulations.

Q.02 What businesses can use the SmartMister?

Every indoor business that has multiple staff or products that need handling would benefit from this solution, including: Offices, Warehousing, Food Production, Clinics; Retail, Nurseries and Schools; the list can go on!

Q.03 Does it actually work and can you prove it?

Yes! We can provide a test method to prove this device will sanitise a room to EU regulatory standards and work well on all surfaces, even carpets that are known to house the most bacteria and viruses. The hypochlorous acid that is used inside the device has been tried and tested, passing EU Regulations to be able to kill 99.9999% of bacteria spores and viruses, including the coronavirus family, with an ATP Lab test to verify your data logging.

Q.04 Best time to use the device?

You are welcome to mist your room anytime, but the majority of our customers set the device on a timer from the app, allowing it to automatically shut itself off and mist out the room when they leave the premises, ready for the next day.

Q.05 How are you different from others?

We have the experience to follow the proof and science.

We have an in-house R&D department with a track record.

We have a UK-based, accredited factory in our group.

We understand the problem and have made a solution to fit the role the SmartMister plays in the bigger picture.

Q.06 Is your HOCl regulated and what is it made from?

We do not manufacture the HOCl in-house. After many years of experience our UK manufacturer provides us with a regulated product that meets EU and NHS specs. We can provide all chemical COSHH reports etc.

The simple answer is de-mineralised electric water and salt, about 95/5%; a safe, organic, stamped product.

Q.07 Why use HOCl and not bleach?

Hypochlorous acid (HOCl) is a weak acid, which is pH skin friendly and a natural occurring substance in our bodies. It is the same chemical that our immune system produces to fight infection and kill bacteria. Used as a disinfectant, hypochlorous acid (HOCl) solutions are lethal to all known bacteria, pathogens and viruses that threaten our health.

Q.08 Is it safe?

Yes it's free from any harsh chemicals. The solution is non-toxic and non-hazardous which is safe for human contact and the environment. It is also safe to use in food preparation areas and on clothing and packaging.

Q.09 Does it kill the Coronavirus?

Yes the hypochlorous acid HOCl solution has passed EU regulations and has been tested to be able to kill 99.9999% of all bacteria and viruses, including the corona virus family and other future problems.

Q.10 Do I need to wear any PPE when operating the machine?

No need to wear PPE whilst operating the device due to the very safe organic nature of HOCl. It will not cause any harm if inhaled and it is kind to the skin and the environment. The SmartMister operates overnight, and has settled on surfaces by the next day so is out of the air in any overwhelming amounts.

Q.11 Are there any negatives or problems with using this machine?

It's hard to find negatives, only things to work around.

If you place it under some IR intruder or smoke alarms it can go off when in use (user manual shows how to avoid)

Green plants may grow at an accelerated rate (user manual shows how to avoid).

Some unpainted metals can rust quicker, just like near the seaside (user manual shows how to avoid).

Q.12 How to calculate time required to sanitise my office to BSEN 13704

The user manual shows a picture and formula to work this out, but the simple answer is multiply the length x breadth say $4\text{m} \times 8\text{m} = 32\text{m}^2$ x 2 for 2-4m ish high ceiling = 64m^3 then x by 0.33 to get time to use SmartMister = **2:12** hours. If you have a 5-9m roof use x 0.57 for time. If you have a larger office, increase the time and validate using particle sensor. People and objects we touch are normally below 2m, the HOCl will reach higher but not in same concentration.

Q.13 Can I use more than one SmartMister at the same time in my business?

Yes, if you have rooms with fire doors that stop air changes you may need to use multiple units and adjust the timings accordingly; the app will allow for this.
If you have long rooms, split them up into $30\text{-}50\text{m}^3$ zones.

Q.14 How quickly does it work?

It works within seconds, which is much quicker than any disinfectant product you can buy normally. Remember, to reach all surfaces and comply with regulations the time needed may be in hours.

Q.15 Does the mist leave any residue?

Yes after repeated use, normally after months of use. It is harmless and helps to create a hostile environment for germs. It also highlights you are not cleaning all surfaces to regulations. Use it as a goal for your cleaners to remove.

Q.16 What is the energy consumption like of the devices?

Our devices are powered through the mains and use 30-110 Watts per hour, normally about £12-30 per year@10p.

Q.17 Do we need to evacuate our office whilst the machine is on?

No need to evacuate the office as the mist is completely human friendly, non-hazardous, and non-toxic. You may not want to work in the room that is being sanitised, as it will be difficult to see through the mist to work effectively so try to find a time overnight when office is clear. If you like a steam room you are ok if not stay out. We recommend you run this overnight in an empty office in case it overwhelms your body with HOCl.

Q.18 Do we need to remove the smoke alarms or turn systems off like fogging?

No, you do not need to remove smoke alarms just don't place it under one, but test to be safe.

Q.19 Will it discolour my fabrics / carpets and clothing?

No, HOCl is fabric safe and can be used on any colour fabric, including carpets, which house the most bacteria and viruses, thus making this a perfect solution for disinfecting carpets and clothing.

Q.20 Why does the solution have a slight smell of chlorine?

One of the features of HOCl is that when it reacts with oxygen in the air it gives off a tiny amount of active chlorine, similar to the sea air which is what you can smell, but is still completely safe; many people instinctively associate this with a deep-clean giving confidence in the process.

Q.21 What is the warranty period?

We provide a manufacturing swap out warranty for 12 months from the day you receive your SmartMister and can extend that if you use our cleaning system every 30 litres and only use our HOCl.

Q.22 Is it compliant?

The products have been tested and successfully comply with the European and British Biocide Regulations. We also successfully comply with the following regulations: **EU-directive 1999/45/EC EU 528/2012 (BSEN 1276, 13704)**. We can supply an ATP test kit for use by us or an independent laboratory to prove test results.

Q.23 Who to ask for info?
sales@kewvisum.com

Q.24 Will this work with my clean air system?

Yes, it will complement it and reduce its running cost by removing pathogens, spores and large particles from air overnight allowing for clean air to run during day with fewer germs to remove.

Q.25 How will this react with my BMS?

If you use a building management system this can be setup to integrate and supply data to it, it is possible to pre-programme your BMS with the misting method to meet regulations and best practices. You will need to add the misting time to your event monitor to stop abnormal data events at a minimum.

Q.26 Do you have a data logging function built in to record compliance?

No, not an internal one, we can supply a wall-mounted option that will cover this unit and report to you. We can also supply or advise on a comprehensive multi-room and central database BMS for recording data.

Q.27 Will this replace my cleaning providers?

No, this is not a cleaning product. You will need to wipe surfaces and vacuum carpets as normal. It will make cleaning safer for the people doing it, though.

Q.28 Is this a clean air system and is it cleaning the air overnight?

Short answer is, not to any regulations yet. We have a hepa filter, activated carbon filter, and a de-ioniser to remove large particles, spores and viruses from the air but to be clear this is sold as a surface sanitiser product that will complement a controlled air quality system and help reduce the running cost of one (this is evening use, not day).

Q.29 Will this damage my computer or laptop?

No, but it will stop spiders wanting to live in it and spores building up. Vacuum the inside of PC as normal to clean.

Q.30 Do we need to remove all books and absorbent products like with fogging requirements?

No, the mist will settle as a dry product and will only increase relative humidity for short time to summer levels.

Q.31 Is this the same as commercial foggers?

No; to over-simplify things, fogging is normally a commercial wet process that uses a very high level of detergent and is usually a requirement to reach a standard. Fogging normally takes thousands of pounds of commitment and time, and creates an office that is not safe to occupy for some time afterwards.

For example, the steps include: the removal of all absorbent materials like paper and some fabrics from office, and the taping up of vents, doors, windows and alarms, before a qualified person wearing PPE then blasts the room. It can take many hours, sometimes days, for it to settle. A specialist cleaning crew then return and remove any moisture on walls and carpets and wipe down all surfaces, including behind furniture. This process will pass an ATP test, a cheap solution from China calling itself a fogger will not.

Q.32 Is this chlorine?

No, but when exposed to fresh air and sunlight, it will generate a very small amount, making the air smell clean.

Q.33 I have seen others on the Internet claiming the same solution. Why use SmartMister?

We provide a solution to dealers that has research, experience and product knowledge behind it. Some opportunistic companies can put a box together, and use the same HOCI to make similar claims, but few will invest in the data proving COSHH, particle density and ATP data that is legally required when making such claims.

Q.34 What other devices can we use in the fight agents germs?

We have a hand-held or wall-mounted air-based sensor to show if the mist is active in an area. We have a hand-held spray to top up sanitation on your hands and surfaces that is kind to your skin and health.

Q.35 Can you recommend a test to verify if we meet regulations?

Yes, we can supply an ATP test kit and instruct you how to use it, with lab results in 1-2 working days. Yes, we can provide collated official documentation on procedures to meet regulations and advice from the NHS and EU.

Q.36 Maintenance requirements?

Regular cleaning is required to maintain the unit, and possibly a factory refit of transducer outside its warranty.

Q.37 Is this product UV-c safe?

The SmartMister is UV protected and the HOCl is stored in UV safe packaging.
HOCl mist will not have the same performance rate in direct sunlight and some UV-c lighting if in direct close contact with intense light. (Follow instructions in user manual)

Q.38 Do the windows need to be closed?

Yes, the HOCl mist efficiency will be reduced if windows are open overnight.

Q.39 Can we use this with our airconditioning?

Yes, we deliver HOCl overnight when temperatures are lower. If you still need still to remove heat from the air it may take a bit longer to add the HOCl and you may need to test with ATP test kit, or use particle sensor to make sure it is working in all areas.

Q.40 Can we use this with our dehumidifier system ?

No, you need to turn off your dehumidifier for the period of use, and two hours after HOCl is dispersed in the air. The HOCl will normally increase the humidity by 10ml per 1m³ at above 17-21°C.

Q.41 Can I move my device between different rooms?

The units can easily be moved to different rooms when not in use.
The Smartmister is light enough to be carried by one person, even though the units are mobile, they must be plugged in to work, and must stay in the same place while working in order to create efficient airflow within the space it is covering. The SmartMister can be mounted on a trolley in order to always be placed in the ideal position.

Q.42 Are there consumables (eg UV light bulbs) other than filters to be replaced regularly?

Possibly; a new HEPA filter is required if the original clogs up (see user manual for time) and HOCl liquid as required.

Q.43 Any training required to operate the unit and if so is it done on-site?

We offer an in-house free training workshop in our head office or we can arrange an onsite visit normally at a cost. The system user manual will help to determine if you need any extra help, but normally no extra training is required.

Q.44 Where do I put the unit? Can the device be installed anywhere?

Air flow is a very important factor to consider. Ideally, closer to the entrance of the room so as to maximise air flow. Away from open windows, and away from under some alarm systems. See user manual for more information. We can offer a bespoke design and installation service for larger multiple installs if required in the UK.

Q.45 Does the unit produce any hazardous by-products?

No. The unit doesn't produce any by-products and is non-hazardous to use and store.

Q.46 What is the time frame to neutralise the smell?

This depends on the number of air changes per hour achieved, and this in turn depends on the size of the area. In general an office or pub carpet smell should be lessened almost immediately and removed after 2-5 days.

Q.47 Can we override the automated timer?

Yes, you can use the app at any time to stop/start the unit or use the manual controls on the front of unit itself. You may want to suspend the use, to allow people to perform building maintenance etc.

Q.48 Do you have marketing material and more information?

Yes, we have printed and PDF documents to hand out to our dealers to pass on. Ask your account manager for link.