

Covid-19 Additional Detail on Cleaning Guidance

What products should I be using?

In order to assist in the prevention of the spread of the virus it is important to understand the difference between cleaning and disinfecting. Cleaning is the act of removing dirt and other visible signs of surface fouling, such as grease marks or stains.

Disinfecting is when you use specific chemicals to kill viruses or germs (for example when you spray an area with a bleach solution, such as a sink or toilet bowl). It is essential to clean first, and then disinfect.

Most common household disinfectants, as well as cleaning solutions with diluted household bleach or at least 70% alcohol are believed to be effective against the coronavirus.

- **A virucidal disinfectant** is any physical or chemical agent that deactivates or destroys viruses. Virucidal spray is a very common and cheap method to clean all hard surfaces and high touch points (light switches and door handles) and can easily be implemented by anyone. You just need to check that your spray works on enveloped viruses to be effective against Coronavirus and ensure that it has the appropriate dwell time (leave it to air dry). Some products need diluting so you need to make sure you get the concentrations correct. This method is the best for frequent cleaning and for hard surfaces. It's not so effective on soft furnishings and it also requires you to cover all surfaces manually. Virucidal sprays with EN14675 or EN14476 are tested on similar viruses but haven't yet been tested on SARS-CoV-2. **EN14476:2013+A2:2019 are products that have been tested on and found to be effective on SARS-CoV-2.**
- **Sodium hypochlorite** is a solid white powder, but is more commonly used dissolved in water. Solutions of **sodium hypochlorite** are commonly referred to as **bleach**, although household **bleach** also contains small amounts of several other compounds, including **sodium** hydroxide and calcium **hypochlorite**. These products can be purchased online.
- **70% Ethanol** (Anhydrous Alcohol) is an effective cleaning agent that kills microbes, denatures proteins, and dissolves lipids. **Ethanol** is also known as **ethyl alcohol**, alcohol anhydrous, denatured alcohol. This product cannot be shipped to a private residence.

Can Domestos kill Coronavirus?

- Unilever's Domestos Bleach is highly effective in combating most of the pathogens that cause diseases with 99.9% germ kill. The latest advice from the [World Health Organisation \(WHO\)](#) is to use diluted Sodium Hypochlorite (bleach) at 0.5% as the recommended solution for disinfection of frequently touched surfaces in homes and healthcare facilities – especially those housing patients with suspected or confirmed cases of SARS-CoV-2 infection.
- Good disinfection procedures (e.g. using sodium hypochlorite @5000ppm/0.5% or 70% ethanol-based cleaners) are expected to be effective against all enveloped viruses and for

inactivating SARS-CoV-2. However, the specific strain of virus responsible for causing the current Coronavirus pandemic is not yet available for commercial testing.

- Nonetheless, all Domestos Bleach products contain between 0.5% and 4.5% Sodium Hypochlorite and given the structural similarities of the COVID-19 virus to the Coronavirus strains tested previously (SARS-CoV, MERS-CoV, Human Coronavirus), and based on the evidence available to us, Domestos bleach is assumed to be effective against the new strain. Definitive scientific confirmation of this, as with all other commercially available virucides, can only be provided once testing against COVID-19 Coronavirus has been conducted, following release of the strain by relevant health authorities. (<https://www.domestos.com/uk/coronavirus/useful-facts-to-know-about-coronavirus.html>)

All US Environmental Protection Agency (EPA) registered antimicrobial products are required to undergo a rigorous science-based review of data. This includes items such as the efficacy to support the claims and directions for use on the label, as well as meet specific performance standards in order to make public health claims. However, during an outbreak of a new virus, no products exist on the market that can make claims to kill the virus. This is because it can take up to a year or more to get a viral claim approved through the standard registration process.

Further information: <https://en-uk.ecolab.com/articles/2020/05/how-epa-approves-disinfectants>

Guide to cleaning different surfaces

According to [National Institutes of Health \(NIH\)](#) studies, Coronavirus can live for up to 2-3 days on plastic and stainless steel surfaces. Since these materials make up many of the things which we regularly touch on a day to day basis, such as light switches and taps, it's vital to disinfect surfaces to reduce the possible risk of transmission between people. This is why the [World Health Organisation \(WHO\)](#) advises the use of diluted Sodium Hypochlorite (bleach) at 0.5% to regularly disinfect frequently touched surfaces such as door handles, kitchen surfaces, and bathroom surfaces. Further studies to help us understand more about how the virus transmits across surfaces are being conducted every day, so it's important to keep up to date and follow the guidance. You can keep up to date through the Centres for Disease Control & Prevention ([CDC](#)) or the [WHO](#).

S: Suggested O: Optional

Adapted from: European Centre for Disease Prevention and Control (ECDC) Technical Report: Disinfection of environments in healthcare and non-healthcare settings potentially contaminated with SARS-CoV-2

	Healthcare Setting / RED RISK SCU	Non-Healthcare Setting / AMBER RISK SCU	General Setting / Green Risk SCU
Surfaces – be aware of where the surface is – kitchens need to be safe for food preparation.	<ul style="list-style-type: none"> Initially Clean with a general detergent or hot soapy water Then disinfect with a Virucidal disinfectant OR 0.05% sodium hypochlorite OR 70% ethanol [S] 	<ul style="list-style-type: none"> Initial clean with general detergent or hot soapy water Then disinfect with Virucidal disinfectant OR 0.05% sodium hypochlorite OR 70% ethanol [S] 	<ul style="list-style-type: none"> Clean with general detergent or hot soapy water. [S]
Toilets & Bathrooms	<ul style="list-style-type: none"> Virucidal disinfectant OR 0.1% sodium hypochlorite [S] 	<ul style="list-style-type: none"> Virucidal disinfectant OR 0.1% sodium hypochlorite [S] 	<ul style="list-style-type: none"> Virucidal disinfectant OR 0.1% sodium hypochlorite [O]
Textiles – Linens, towels,	<ul style="list-style-type: none"> Hot-water cycle (90oC) AND Regular laundry detergent Alternative lower temp cycle + bleach or other laundry products [S] 	<ul style="list-style-type: none"> Hot-water cycle (60oC) AND Regular laundry detergent Alternative lower temp cycle + bleach or other laundry products [S] 	<ul style="list-style-type: none"> Hot-water cycle (60oC) AND Regular laundry detergent Alternative lower temp cycle + bleach or other laundry products [O]
Cleaning Equipment	<ul style="list-style-type: none"> Single-use disposable OR Non-disposable disinfected with: 	<ul style="list-style-type: none"> Single-use disposable OR Non-disposable disinfected with: 	<ul style="list-style-type: none"> Single-use disposable OR

	<ul style="list-style-type: none"> • Virucidal disinfectant OR • 0.1% sodium hypochlorite [S] 	<ul style="list-style-type: none"> • Virucidal disinfectant OR • 0.1% sodium hypochlorite [O] 	<ul style="list-style-type: none"> • Non-disposable cleaned at the end of each session [S]
PPE for Cleaning Staff (NB check chemical being used for level of mask needed)	<ul style="list-style-type: none"> • Surgical mask • Disposable long-sleeved water-resistant gown • Gloves • FFP2 or 3 when cleaning facilities where AGP have been performed [S] 	<ul style="list-style-type: none"> • Surgical mask • Uniform & plastic apron • Gloves [S] 	<ul style="list-style-type: none"> • Uniform • Gloves [S]
Waste Management	<ul style="list-style-type: none"> • Infectious clinical waste category B (UN3291) [S] 	<ul style="list-style-type: none"> • In a separate bag in the unsorted garbage [S] 	<ul style="list-style-type: none"> • Unsorted waste [S]

Alternative cleaning methods

There are additional cleaning methods such as steam cleaning (heat breaks the virus down), Ozone, Aqueous Ozone, UV light, fogging (dry or thermal) that may be appropriate to engage for common areas or high use zones, however the risk to both guests and cleaners as well as the cost would need to be assessed. Before any disinfection can occur, you absolutely must first clean your space. Disinfecting isn't a quick solution to cleaning, it's a secondary process.

- **Steam Cleaning:** Within the steamer, heat is used to transform a single litre of tap water to over 1700 litres of steam, which is enough to clean a small apartment. Because you are only using tap water, you are not leaving behind any chemical residue that may be harmful to guests especially those with allergies. The steam also binds dust together and removes it rather than emitting any allergens and therefore it also improves the air quality. The official UK Government advice is to steam clean your upholstery and fabric furnishings to prevent the spread of the coronavirus.

Karcher, a leading brand in the steam cleaning world, have carried out research in an independent lab and the result "if used properly, the machines remove up to 99.999% (Log 5) of enveloped viruses such as the coronavirus and influenza, and 99.99% of common household bacteria from hard surfaces". It appears that it has not been fully tested yet on soft furnishings, however that doesn't mean it doesn't work, just that it hasn't been tested.

- **UV Light:** UV-C Lights use short wave ultraviolet radiation. The light penetrates the outer structure of the cell and alters the DNA molecule preventing it from replication and

causing cell death. It has been used since the 1880s to kill micro-organisms and has been used to successfully kill a range of viruses, bacteria and organisms including: Coronavirus, Ebola, MRSA, Salmonella, E-Coli, Fleas, dust mites and Pneumonia.

It has a kill rate of 99.99% (Log 4). Lights can be set up in rooms and left for a set time (timer on the appliance) and the room can be vacated while in operation, or there is hand held UV lights commonly known as 'wands' that can be swipped over surfaces to ensure all living cells are destroyed.

Pros are that it can be used in a variety of settings and is safe for use, however you must remember that light travels in straight lines and it won't get into folds in curtains or into hidden cracks.

- **Gaseous Ozone:** Gaseous ozone is emitted from an ozone generator in a sealed space. The room must be absolutely clear of any living things including pets, plants, people and sealed while the generator is in action. The ozone generator draws in Oxygen from the air, converts it to and then emits Ozone (O₃). Ozone is very effective in cleaning air, and a number of people use ozone generators to get rid of unpleasant smells. It's kill rate on SARS-CoV-2 is still under investigation, but may be no better than 99.22%. After an ozone generator has finished, the room must be left for a certain time to ensure the ozone breaks down before anyone can enter.
- **Aqueous Ozone:** A stabilised form of Ozone suspended in water for up to 24 hours. Essentially it is a powerful cleaning and disinfecting product that consists of water, oxygen and electricity. A powerful charge is pushed through the water to change the structure. The O₂ in water become O₃ (oxone). This is a powerful cleaning agent, and after 24 hours the O₃ has returned to O₂ making it perfectly safe to throw out down the plug as normal tap water. It can be used to pre-disinfect, clean and disinfect, so is a multi-purpose item, however it has not yet been fully tested on SAR-CoV-2. It has been found to be 99.99% (Log-4) effective on a nearest similar virus

Ultra Low Volume (ULV) Fogging: this is the use of machines that push out disinfectant in a fine mist to cover all surfaces, because the mist is pushed out under pressure the disinfectant spreads across a wide area and can get into hard to reach areas.

However, on the down side you have to prepare you space well, cover all fire alarms and electrical appliances and ensure no one enters the room during and after the fogging until the appropriate time has passed. Operators must wear full PPE and be well trained on both the equipment and the chemicals they use.