



About the novel coronavirus

A novel (new) **coronavirus** was recorded in late 2019 in China and began to spread rapidly, first in China and now as a global pandemic. This coronavirus was named **COVID-19** by the World Health Organisation (WHO). The virus that causes COVID-19 is a SARS virus called **SARS-CoV-2**.

Being so new, our understanding of how this coronavirus behaves, how to prevent the spread of infection, and how best to kill it, is still evolving and is often based on previous SARS viruses.

The following guide is to help you choose a disinfectant that will effectively inactivate (kill) the **SARS-CoV-2** virus on inanimate (non-living) surfaces.

It has been provided for members of the Building Service Contractor's Association of Australia, and is an extract from the **Guide to Cleaning for COVID-19** by HPC Solutions.

What we know about COVID-19

We know that COVID-19 is extremely infectious, we have no immunity to it, and there are no vaccines. It can cause deadly pneumonia in elderly people and those with underlying lung and heart conditions.

We know that it is spread via droplets of breath from infected people that can be inhaled if you are within 1-2 metres of that person, and by touching surfaces that infected droplets land on.

We know that if the conditions are right, it can remain infectious on inanimate surfaces for several days. In fact, other human coronaviruses have remained infectious for up to 9 days.

Why cleaning and disinfection is important

COVID-19 can be transferred from a contaminated surface onto hands and cleaning tools, which can then infect:

- other surfaces that we clean,
- other people that we touch, and
- our own bodies by touching our eyes, nose or eating without washing hands.

That's why thoroughly cleaning and disinfecting frequently touched surfaces is a vitally important part of preventing the spread of COVID-19 and keeping us all healthy.

Which disinfectants should you use?

All coronaviruses are encased in fatty envelopes rather than proteins, which makes them quite easy to remove with detergent and warm water and deactivate with disinfectant. The table on page 2 lists the disinfectants most recommended for COVID-19 by the following authorities:

- The **Australian Department of Health**¹ which recommends the use of **sodium hypochlorite** (chlorine bleach) for disinfecting touch points in hospitals at a concentration of 0.1%.
- The **World Health Organisation (WHO)**² also recommends sodium hypochlorite, but at 0.5%.
- Extensive research from previous SARS viruses has been compiled in a paper in the **Journal of Hospital Infection**³. This research found that **0.1% sodium hypochlorite, 62-71% Ethanol** and **0.5% Hydrogen peroxide** disinfectants were most effective at inactivating SARS viruses. The same research found that Benzalkonium chloride (quaternary ammonium) was the least effective disinfectant at inactivating SARS viruses.

Recommended disinfectants for COVID-19

Type of disinfectant	Dept. Health	WHO	J. Hospital Infection
Sodium hypochlorite (bleach)	0.1%	0.5%	0.1% – 0.5%
Ethanol			62% – 71%
Hydrogen peroxide			0.5%

Disinfectants with Specific Claims of being able to kill viruses.

There are several other disinfectants able to deactivate viruses available on the market, such as: isopropanol, peracetic acid, quaternary ammonium, or combinations of disinfectants.

Disinfectants must provide the Therapeutic Goods Administration (TGA) with evidence of their germ-killing ability to meet the TGO 104 Standard⁴. They must also be listed on the Australian Register of Therapeutic Goods (ARTG)⁵ before they may be labelled and sold in Australia as a:

- **Hospital grade disinfectant**, or
- **Household/commercial disinfectant** that makes specific claims – (such as being able to kill viruses – referred to as ‘virucidal’).

You can search the ARTG to check if a disinfectant making such claims is TGA registered.

Be aware that the TGA has recently issued a warning that it is illegal to claim a product can treat or prevent the novel coronavirus without evidence or being registered on the ARTG.⁶

Disinfecting process

Whichever disinfectant you choose to use, it is vitally important that you follow the manufacturer’s instructions when you prepare it, and use it, or it could be totally ineffective.

The following guide for preparing and using disinfectants is of a general nature only. Always refer to the specific manufacturer’s instructions and Department of Health guidelines.

The **concentration** of the disinfecting agent in the product, and the **length of time** it has contact with the surface, are critical to its ability to kill viruses.

Preparing disinfectants:	Using disinfectants:
<ul style="list-style-type: none"> • Always follow manufacturer’s recommended dilution rate. • Wear the Personal Protective Equipment (PPE) as stated on the Safety Data Sheet (SDS). • Prepare a fresh solution of disinfectant every day, if not using a ready-to-use product. • Prepare enough clean cloths or wipes to use a fresh cloth on each high touch point. 	<ul style="list-style-type: none"> • Wear the correct Personal Protective Equipment (PPE) including gloves, masks and eye protection. • Clean the surface to remove all organic matter, or it can prevent the disinfectant from working. • Contact time: Leave the disinfectant wet on the surface for the recommended “contact” time to allow it to work. This may be up to 10 minutes. • Rinse or leave: Some disinfectants must be rinsed away or they can damage the surface or burn skin (i.e. bleach), and some must be left to air dry. Always follow the manufacturer’s instructions.

References

1. Australian Department of Health: Environmental cleaning and disinfection principles for COVID-19. Source: www.health.gov.au/sites/default/files/documents/2020/03/environmental-cleaning-and-disinfection-principles-for-covid-19.pdf
2. Q&A: What are the disinfectants recommended for environmental cleaning. Source: www.who.int/news-room/q-a-detail/q-a-on-infection-prevention-and-control-for-health-care-workers-caring-for-patients-with-suspected-or-confirmed-2019-ncov
3. Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents, Journal of Infection Control, G.Kampf et al, January 2020. Source: [www.journalofhospitalinfection.com/article/S0195-6701\(20\)30046-3/fulltext](http://www.journalofhospitalinfection.com/article/S0195-6701(20)30046-3/fulltext)
4. Therapeutic Goods (Standard for Disinfectants and Sanitary Products) (TGO 104) Order 2019. Source: www.legislation.gov.au/Details/F2019L00482
5. Australian Register of Therapeutic Goods (ARTG) Search. Source: <https://tga-search.clients.funnelback.com/s/search.html?query=&collection=tga-artg>
6. Warning about products claiming to treat or prevent the novel coronavirus. Source: www.tga.gov.au/media-release/warning-about-products-claiming-treat-or-prevent-novel-coronavirus

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The Guide to Cleaning for COVID-19

This document is an extract from the full **Guide to Cleaning for COVID-19** by HPC Solutions.

This essential guide cuts through the myths about the coronavirus and gives you simple, accurate and ready-to-action information to ensure your business thrives through this pandemic. It is supported with a pack of templates for cleaning services, including:

- Risk Management Plan for Cleaning during Pandemics
- Procedure for Managing Cleaning Staff during Pandemics
- High Touch Point Cleaning Protocols
- SOP for Cleaning and Disinfecting High Touch Surfaces

HPC Solutions will be offering BSCAA members a 10% discount on this package. More information about how to purchase this Guide will be provided by the BSCAA shortly.

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