

# INFORMATION

# COVID-19 SURFACE STABILITY



## INTRODUCTION

The COVID-19 pandemic sweeping across the globe is an unprecedented time and information is being developed in a fluid and changing environment.

To that end, the Australasian Paper Industry Association and The Real Media Collective, working collaboratively, have reviewed research and commentary for your consideration in specific regard to the COVID-19 virus life-span on paper and other surfaces.

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## THE SCIENCE

The latest and most referenced scientific research of COVID-19 surface rate of infection is the '*Aerosol and Surface Stability of HCoV-19 (SARS-CoV-2) compared to SARS-CoV-1*' published in The New England Journal of Medicine (doi: [10.1056/NEJMc2004973](https://doi.org/10.1056/NEJMc2004973)).

Within this research, surface stability was evaluated across plastic, stainless steel, copper, and cardboard across a range of household and hospital situations. It must be noted, paper as used for print marketing, catalogues, magazines or other commercial requirements has not been tested. In this paper we will refer to the closest substrate tested: Cardboard.

### ***Lloyd-Smith, Author of the 'Aerosol and Surface Stability of HCoV-19 (SARS-CoV-2) compared to SARS-CoV-1' commented:***

"In a laboratory experiment, the conditions are pretty carefully controlled and constant," he says. By comparison, "in the real world, conditions fluctuate" — conditions like temperature, humidity and light. So, the survivability may vary, too. For instance, if the virus contaminates a sunny windowsill or countertop, it may not last as long.

### ***Daniel Kuritzkes, Infectious Disease Expert, Brigham and Women's Hospital***

"Ultraviolet light can be a really powerful disinfectant and we get a lot of UVA light from the sun," says Daniel Kuritzkes an infectious disease expert at Brigham and Women's Hospital. "Direct sunlight can help rapidly diminish infectivity of viruses on surfaces," he says. He was not involved in the new research.

### ***The World Health Organization states:***

"The likelihood of an infected person contaminating commercial goods is low and the risk of catching the virus that causes COVID-19 from a package that has been moved, travelled and exposed to different conditions and temperature is also low."

### ***The World Economic Forum comments on the official guidelines being that the risk is low:***

"In general, because of poor survivability of these coronaviruses on surfaces, there is likely very low risk of spread from products or packaging that are shipped over a period of days or weeks at ambient temperatures," the Centres for Disease Control have said.

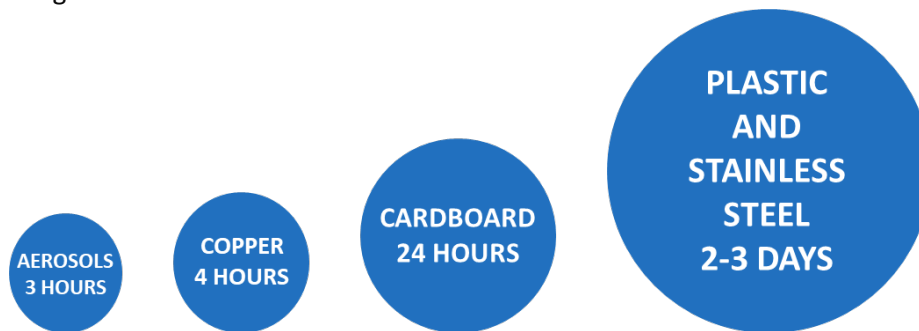
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### FINDINGS

The findings concluded the virus on substrates as follows:



*Source: 'Aerosol and Surface Stability of HCoV-19 (SARS-CoV-2) compared to SARS-CoV-1', 2020*

Viable COVID-19 could be detected in aerosols up to three (3) hours post aerosolization, up to four (4) hours on copper, up to twenty-four (24) hours on cardboard and up to two-three (2-3) days on plastic and stainless steel. Both viruses show relatively long viability on stainless steel and polypropylene (plastic) compared to copper or cardboard: the median half-life estimate for COVID-19 is around thirteen (13) hours on steel and around sixteen (16) hours on polypropylene (plastic).

The study supports guidance from public health professionals across the world, to slow the spread of COVID-19:

- > Avoid close contact with people who are sick,
- > Avoid touching your eyes, nose and mouth,
- > Stay home when you are sick,
- > Cover coughs or sneezes with a tissue, and dispose of the tissue in the rubbish,
- > Clean and disinfect frequently touched objects and surfaces using a household cleaning spray or wipe, and
- > Wash your hands regularly.

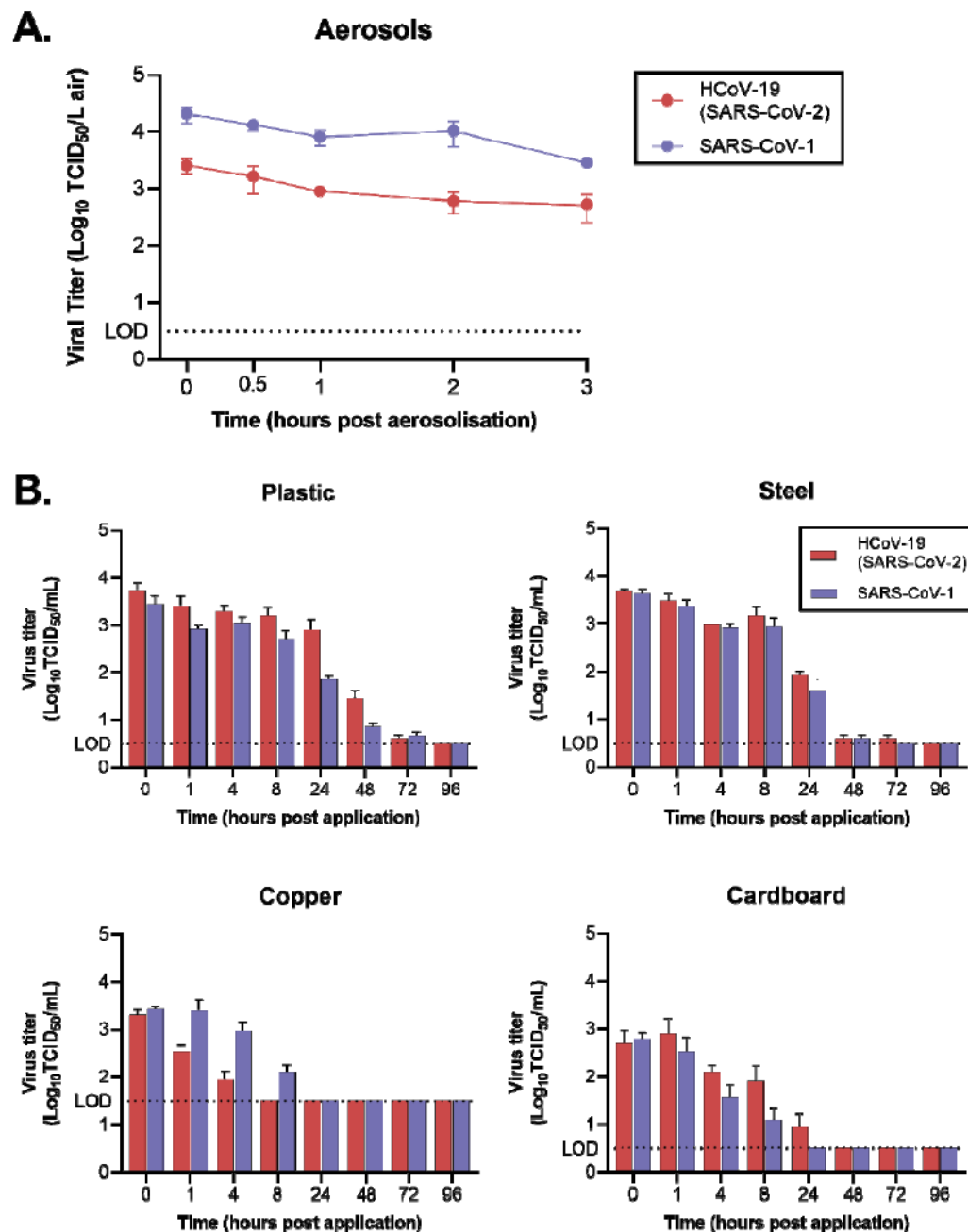
Cardboard, and through this assumption of paper or fibre-based products, is reported as carrying a low risk of contamination. Following the above guidelines at all times across all substrates you encounter will slow the spread of COVID-19.

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### GRAPHICAL REPRESENTATION OF THE TIME OF VIABLE VIRUS DETECTION BY SUBSTRATE



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### REFERENCE LINKS

1. *New England Journal of Medicine*

<https://www.nejm.org/doi/full/10.1056/NEJMc2004973>

2. *World Health Organisation*

<https://www.who.int/news-room/q-a-detail/q-a-coronaviruses>

3. *World Economic Forum*

<https://www.weforum.org/agenda/2020/03/can-i-send-mail-postal-services-coronavirus-covid19/>

4. *Brigham and Women's Hospital*

<https://www.npr.org/sections/health-shots/2020/03/14/811609026/the-new-coronavirus-can-live-on-surfaces-for-2-3-days-heres-how-to-clean-them>

5. *NSW Government*

<https://www.health.nsw.gov.au/Infectious/alerts/Pages/coronavirus-faqs.aspx>

6. *Medrxiv*

<https://www.medrxiv.org/content/10.1101/2020.03.09.20033217v2>

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