消費者委員會
CONSUMER COUNCIL

Questions about the methods and test conditions adopted for the test on multi-purpose disinfectants

1. Why not using the novel coronavirus SAR-CoV-2 as the test virus?

An expert revealed that using the novel coronavirus SAR-CoV-2 for laboratory test might have biosafety issues, and it was technically difficult to handle the virus, therefore it might not be a good option for the test.

2. If a disinfecting product could be able to inactivate adenovirus, is it also effective on inactivating the novel coronavirus?

Comparing with the novel coronavirus, adenovirus is a harder-to-kill virus with the use of chemical disinfectants. There was an overseas guidance stated that if a product could kill a harder-to-kill virus, it should also be able to kill any enveloped virus (including the novel coronavirus). On the other hand, the routes of transmission of adenovirus and the novel coronavirus were very similar. Therefore, the Council adopted adenovirus for the test, so as to determine a product's anticipated efficacy against the emerging viral pathogen.

The Council believed that if a disinfecting product was able to inactivate adenovirus effectively, theoretically it would have a higher anticipated efficacy against the novel coronavirus. In the real use situations, sufficient amount of disinfectant with sufficient contacting time would be the key factors to achieve satisfactory efficacy in eliminating bacteria and viruses. Meanwhile, for selection of disinfecting products, we should also pay attention to the stability of the active ingredients in the products, and to assure the product would be effective at killing bacteria and inactivating viruses for the whole in-use period.

3. Why the Council adopted a test condition with a higher amount of interfering substances (named dirty conditions) for the test?

Certain product suppliers adopted a test condition with a lower amount of interfering substances (named clean conditions) for the product efficacy test. However, some products claimed that they could be applied on toilets, shoes, rug, floor, bathrooms and kitchens, air-conditioning filters, etc, and some even claimed

that they could be used in the hospitals, clinics, hostels, and medical areas. The Council believed that in the real-life situation as mentioned above, the surfaces needed to be disinfected may have higher amounts of dirt. Therefore, the Council believed that adopting a test condition with higher amount of interfering substances (dirty condition) for the product test, the results obtained would be more relevant to different usages of the disinfecting products. If a product fulfils the test requirements for both of the “clean” and “dirty” test conditions, it would be expected to provide a better protection to consumers.

On the contrary, if a product could only pass the test under “clean” conditions, the product supplier should state it clearly on the product labelling to remind users to pre-clean the surface before using the disinfectants.

4. Why we adopt a contact time of 1 minute for the bactericidal and virucidal activity tests?

Majority of the products did not have recommendation of minimum contacting time on their labelling or packaging, a few disinfecting products even claimed that they were able to kill bacteria and viruses in 30 to 60 seconds. For the product application, most of the tested products claimed that they could be used for hand disinfection, and also for general disinfection purposes. Referring to the European test methods the Council adopted for testing, a contacting time of 1 minute could be used for the bactericidal activity test on both hygienic handrubs and general purpose disinfection.

Referring to the information provided by various product suppliers, some of them adopted a longer contact time for their virucidal activity tests, for instance from 2 minutes to 90 minutes, a huge variation existed in the contact time for their own tests. Therefore, the Council suggested that consumers should read the details about the contact time, test conditions adopted and assess if there would be a huge difference between the test and real-life situations.

5. If the product suppliers offered some test reports with the use of other viruses, is it trustworthy to make reference with?

Referring to the test method the Council adopted, if a disinfecting product tested with vaccinia virus and passed the requirements, the product should be able to inactive all kinds of enveloped viruses. And if it passed the test with adenovirus, the product should be effective against the test virus (adenovirus) and all kinds of enveloped viruses. On the other hand, some other countries accepted the test on coronavirus 229E or murine hepatitis virus as the surrogate viruses.

The Council believed that if a product was only proven to be effective on a particular enveloped virus (such as an influenza virus), the product label and the corresponding promotional materials should mention the efficacy against a particular virus but not marketed as having a broad spectrum of virucidal activity, so as to avoid any possible misleading of the consumers.