

The use of disinfectants based on quaternary ammonium compounds (QACs) has played, and will continue to play, a massive role in measures designed to minimise the spread of SARS-CoV-2, the Coronavirus responsible for the human disease COVID 19.

QACs belong to a group of surfactants in which substantivity – the ability to adhere to surfaces - is a typical feature, and has been exploited to great effect, and commercial gain, for at least 50 years in the form of fabric conditioners.

The biocidal properties of QACs (i.e. the ability to destroy bacteria and viruses) were established in the 1930s and have also been successfully exploited to the present day. So, it comes as no surprise that residual biocidal activity attributable to the substantivity of QACs, has long been reported.

It is, therefore, not unreasonable to anticipate that some prolonged benefit might arise from the use of such products in hygiene measures adopted to combat the spread of Coronavirus. A large number of claims have been made to that effect, by companies wishing to promote their products in a wide range of environments. However, any benefit which may be accrued, **outside the controlled environment of a microbiology laboratory**, remains largely unquantified and/or speculative. Recent attempts to address this have been unreliable, due to the inaccurate methods used to detect and quantify the virus.

In our opinion, therefore, in the face of the current pandemic, companies promoting their products based on such unsubstantiated claims, and others relying on those companies' claims to justify reducing the frequency or thoroughness of hygiene measures, are not acting responsibly.

The most consistent piece of advice that has been offered by government and scientific advisers through the course of the pandemic has been to wash your hands frequently; ahead, even, of advice to apply hand sanitiser, placing the emphasis on **removal of infective material**, instead of deactivation. So, it seems reasonable to also apply this advice to hard and soft surfaces, by cleaning them as frequently as is practicable, depending on the establishment, and not relying on the benefit of residual activity, which remains **unproven in real-world situations**.

Evans Vanodine, therefore, would advise against the use of such products which claim residual benefits, to avoid any potentially dangerous and unsafe cleaning procedures being employed.

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