

Sundew™

SURFACE DISINFECTANT

MULTI-PURPOSE



Available in 750 mL Trigger, 5 L and 20 L



DISINFECTING SURFACES



WIPE SURFACES CLEAN



KILLS BACTERIA AND GERMS



100% FAMILY OWNED AUSTRALIAN BUSINESS

Sundew Surface Disinfectant uses stabilised hydrogen peroxide instead of commonly found quaternary ammonium compounds (quats or QACs).

Why use hydrogen peroxide instead of QACs?

Mode of Action

QAC compounds are a large family of chemicals that all have a quaternary ammonium group in common. They usually have a chemical name ending with '...ammonium chloride' or '...onium chloride', e.g. 'didecylidimethyl ammonium chloride' (DDAC) or 'benzalkonium chloride' (BAC). The mode of action of QACs is still poorly understood and is often characterised as charged spikes that can penetrate the cell membranes of microorganisms.

Hydrogen peroxide has been shown to be effective against all forms of microorganisms, including dormant forms with known high resistance (such as bacterial spores and protozoal cysts), and also infectious proteins (such as prions). Hydrogen peroxide is a powerful oxidiser with the basic mechanism of chemical oxidation of cellular components. As a result, hydrogen peroxide provides a broader spectrum of control than other chemical modes of action.

Hydrogen peroxide is highly reactive which advantageously allows it to rapidly eliminate microorganisms with the added unique advantage that it degrades rapidly to benign elements. The components in **Sundew Surface Disinfectant** will degrade quickly to water, carbon dioxide and oxygen when wiped clean with a damp cloth making it very safe and eco-friendly.

Efficacy

There is conflicting data available around the effectiveness of QACs, the concentration and the contact time needed for control of microorganisms. Some data suggests that QACs can be effective against coronaviruses with a contact time of at least 10 minutes, while other data suggests that QACs aren't effective against coronaviruses¹. Likewise, data exists that suggests QACs may not be as effective in treating robust bacteria such as biofilm formers². The same studies show that hydrogen peroxide is an effective sanitiser for coronaviruses with a contact time of 30 seconds, and is also effective on robust bacteria. One of the reports recommends hydrogen peroxide as the sanitising solution for medical equipment over QACs.

Independent laboratory tests on surfaces with 29,500,000 per mL Staphylococcus and 23,900,000 per mL E.coli demonstrated that **Sundew Surface Disinfectant** killed 99.9999% in less than 60 seconds.

Hazards

QACs have a wide variety of hazards, depending on the QAC being used. Common hazards are acute toxicity, skin sensitisation, eye and skin corrosion and toxicity to the aquatic environment. Diluted or ready to use QAC products have reduced hazards but irritation, sensitisation and toxicity hazards (both aquatic and mammalian) are still commonly listed on various QAC products. QAC products are also under reassessment by a number of regulatory agencies due to concern over hazards.

In concentrated form, hydrogen peroxide has a wide variety of hazards. However, when diluted to

its ready to use form of 0.5% as found in **Sundew Surface Disinfectant** the only hazard listed is a mild skin irritant.

Personal Protective Equipment

While no specific personal protective equipment is required for the use of **Sundew Surface Disinfectant**, it is recommended as best practice to use standard PPE (e.g. eye protection, gloves and respiratory protection) if large quantities are being misted because the risk of large exposure is increased.

Effect on Surfaces

Hydrogen Peroxide is well known as a bleach at concentrations above 3%. **Sundew Surface Disinfectant** has been tested against a variety of surfaces including stainless steel, painted surfaces, melamine bench tops, carpet, vinyl flooring and fabrics with no damage to these surfaces. Mild steel may exhibit some corrosion if exposed for a period of time. It is impossible to test every type of surface including all types of paints and coatings so caution is advised and a test on a small area of the surface prior to using the product may be warranted if at all concerned.

1. Kampf G, Todt D, Pfaender S, Steinmann E. Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents. *J Hosp Infect* 104, 246-251 (2020). <https://doi.org/10.1016/j.jhin.2020.01.022>

2. Lineback, C.B., Nkemngong, C.A., Wu, S.T. et al. Hydrogen peroxide and sodium hypochlorite disinfectants are more effective against Staphylococcus aureus and Pseudomonas aeruginosa biofilms than quaternary ammonium compounds. *Antimicrob Resist Infect Control* 7, 154 (2018). <https://doi.org/10.1186/s13756-018-0447-5>

POWER OF
HYDROGEN PEROXIDE

100% BLEACH FREE

✓ READY TO USE ✓ BIODEGRADABLE ✓ HOSPITAL GRADE

sundew
sundewsolutions.com.au