

Key Features

PROTECT is a water based, alcohol free and simultaneously sanitises and moisturises the skin. PROTECT exhibits the following key qualities when in use: Non-corrosive, Non-irritant, Non toxic, Non flammable, food safe, safe in use, cost effective and easy to use with excellent levels of user acceptance and prolonged antimicrobial effect for up to 2 hours after application.

What is PROTECT?

PROTECT is a skin antiseptic which offers a safe, effective and user friendly skin cleansing disinfection and sanitation. It can be utilised across a wide range of industries from healthcare to educational establishments, to food processing to veterinary science.

What has it been designed for?

PROTECT has been developed as a skin sanitiser used for situations where skin and hand hygiene are of paramount importance. PROTECT will interrupt the key transmission pathways of the hands, by reducing the microbes present on the skin to its lowest possible level. This reduces the risk of cross infection and contamination.

How does PROTECT effect microbes?

PROTECT is a powerful lytic agent which is based on the quaternary ammonium compounds benzalkonium chloride and didecyldimethyl ammonium chloride. These have multiple affects and points of action within the microbe which include:

- Inactivation of energy-producing enzymes
- Denaturation of essential microbial proteins
- Physical disruption of membrane lipids
- Bacteria cell walls

Proteins and lipids are essential components of bacteria, viruses, fungi and bacterial spores. Significant damage to these key microbial components is often fatal for the organism. PROTECT causes rapid and significant changes at multiple sites within the microbe. The magnitude of these affect is so great that it is typically lethal to the microbe within minutes of contact.

How effective is PROTECT?

See below the table on the summary of microbial classes and the results of extensive in-vitro testing.

MICROBIAL CLASS	EFFICACY TEST	CONTACT TIME (Secs)	LOG REDUCTION
BACTERIA (Gram + / Gram -)	FDA Monograph	15	> 5
BACTERIA (E. Coli)	EN 1500	15	> 3
VIRUSES (Enveloped / Non enveloped)	EN 14476	60	> 3
FUNGI	AOAC—Fungicidal	15	> 5



AVAILABLE IN:
2 x 5L Ready to use
10 x 50ml Foaming bottle

Time Kill Study for Protect

This study is designed to examine the rate of kill of a test substance after inoculation with a test organism. Results are expressed in percent reduction and log reduction of the test organism. **Exposure time is 15 seconds.**

Organism	Test Population Control (CFU/ml)	Number of Survivors (CFU/ml)	% Reduction	Log Reduction
Campylobacter jejuni ATCC 29428	1.02 X 10 ⁷	<1 X 10 ²	>99.999	>5.00 Log ₁₀
Candida albicans ATCC 10231	1.60 X 10 ⁵	6.0 X 10 ³	96.3	1.42 Log ₁₀
Clostridium difficile / ATCC 9689	3.40 X 10⁶	<2	>99.9999	>6.20 Log₁₀
Enterococcus faecalis Vancomycin Resistant (VRE) ATCC 51575	1.12 X 10 ⁶	3.2 X 10 ¹	99.99	4.54 Log ₁₀
Escherichia coli ATCC 11229	3.80 X 10 ⁶	4	99.999	6.00 Log ₁₀
Escherichia coli O157:H7 ATCC 35150	1.26 X 10 ⁶	<2	>99.999	>5.80 Log ₁₀
Klebsiella pneumoniae ATCC 4352	1.10 X 10 ⁶	2	99.999	5.70 Log ₁₀
Listeria monocytogenes ATCC 19117	4.7 X 10 ⁶	1.9 X 10 ³	99.9	3.39 Log ₁₀
Pseudomonas aeruginosa ATCC 15442	3.5 X 10 ⁶	<2	99.9999	>6.20 Log ₁₀
Salmonella choleraesuis serotype enteritidis ATCC 4931	6.8 X 10 ⁵	2	>99.999	5.50 Log ₁₀
Salmonella choleraesuis serotype paratyphi ATCC 8759	5.6 X 10 ⁵	<2	>99.999	>5.50 Log ₁₀
Salmonella choleraesuis serotype pullorum ATCC 19945	8.9 X 10 ⁵	<2	>99.999	>5.70 Log ₁₀
Salmonella choleraesuis serotype typhimurium ATCC 23564	7.7 X 10 ⁵	6	>99.999	>5.10 Log ₁₀
Salmonella typhi ATCC 6539	1.27 X 10 ⁶	2	99.999	5.80 Log ₁₀
Shigella dysenteriae ATCC 13313	1.3 X 10 ⁶	<2	>99.999	>5.80 Log ₁₀
Shigella flexneri ATCC 12022	1.39 X 10 ⁶	2.8 X 10 ¹	99.99	4.69 Log ₁₀
Shigella sonnei ATCC 25931	2.43 X 10 ⁷	2.0 X 10 ¹	99.9999	6.09 Log ₁₀
Staphylococcus aureus ATCC 6538	6.7 X 10 ⁶	<2	>99.9999	>6.53 Log ₁₀
Staphylococcus aureus Methicillin Resistant (MRSA) ATCC 33592	1.23 X 10 ⁷	3.8 X 10 ³	>99.9	3.51 Log ₁₀
Staphylococcus aureus Community Associated Methicillin Resistant (MRSA) NARSA NRS 123, Genotype USA400	1.18 X 10 ⁶	5.8 X 10 ²	>99.9	>3.30 Log ₁₀
Staphylococcus epidermidis ATCC 12228	7.2 X 10 ⁵	<2	99.999	5.56 Log ₁₀
Streptococcus pneumonia ATCC 6305	6.4 X 10 ⁵	<2	>99.999	>5.51 Log ₁₀
Streptococcus pyogenes ATCC 19615	1.77 X 10 ⁶	<2	>99.999	>5.90 Log ₁₀
Vibrio cholera ATCC 11623	4.7 X 10 ⁵	<2	>99.999	>5.40 Log ₁₀
Xanthomonas axonopodis (Citrus Canker) ATCC 49118	1.28 X 10 ⁶	3.6 X 10 ¹	>99.99	4.55 Log ₁₀
Yersinia enterocolitica ATCC 23715	2.23 X 10 ⁶	3.8 X 10 ¹	99.99	4.77 Log ₁₀