

High Level Broad Spectrum Cleaner/ Disinfectant







Combined high level cleaner/disinfectant with odour control for all surfaces, environments, equipment and air



Single step, high level cleaner/disinfectant for all surfaces, environments, equipment and air

TECcare® CONTROL is a high level disinfectant technology platform offering safe, effective, user friendly single step cleaning and disinfection across a wide range of industries including healthcare, educational establishments, food processing and veterinary science.

Improving environmental cleanliness reduces the risk of infection, cross infection, contamination, spoilage etc. whilst also reducing the number of microbes transferred onto people's hands. **TECcare CONTROL** products have been particularly successful in the very challenging healthcare setting where their use has resulted in cleaner clinical environments when compared to both standard cleaning ¹ and chlorine dioxide based cleaning and disinfection protocols. ² **TECcare CONTROL** is designed for use in situations where there is a clear need to create and maintain the cleanest possible environment whilst simultaneously reducing the bioburden (i.e. number of microbes present) in order to interrupt the key transmission pathways (surfaces and air) and reduce the risk of infection, cross infection, contamination, spoilage etc.

TECcare CONTROL products are fully compliant with all current legislation including the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Directive.



• Recyclable Packaging



• For use in ALL Environments





TECcare CONTROL is a broad spectrum cleaner/disinfectant with odour control which is effective against all microbial classes up to and including bacterial spores and has been developed for high level, one step cleaning and disinfection of all hard and soft surfaces, environments, equipment and air.



Minimising your microbial risks:

TECcare CONTROL minimises the risks posed by microbes by creating / maintaining the cleanest environment with the fewest possible microbes. The benefits of minimising microbial risks will differ between industries and application areas, but can include the following:-

- Reduced incidence of infections and / or infection outbreaks ³
- Improved process efficiency ^{4, 5}
- Significant energy savings ⁵
- Reduced operational costs ^{2, 4}
- Reduced spoilage of food
- Reduced waste ⁴
- Reduced inventory ¹
- Physically cleaner environments ^{1, 2}
- Reduced environmental bioburden ⁶





TECcare CONTROL's mode of action:

TECcare CONTROL is a powerful lytic agent which is based around the quaternary ammonium compounds (QACs) didecyldimethyl ammonium chloride (DDAC) and benzalkonium chloride (BAC) with an adjuvant effect to enhance its antimicrobial efficacy. The advanced chemistry behind the **TECcare CONTROL** technology platform has resulted in the production of a 6th generation quaternary ammonium compound. NB. QAC based disinfectants are typically categorised according to their 'generation', with increasing antimicrobial activity generally being demonstrated as you ascend the generations. With BAC and DDAC categorised as 1st and 5th generation QACs respectively the adjuvant effect elevates **TECcare CONTROL** to be positioned as a 6th generation QAC. QACs have multiple affects and points of action within the microbe (see Figure 1) which include:-:-

- Inactivation of energy-producing enzymes ^{7, 8, 9}
- Denaturation of essential microbial proteins ^{7, 8, 10}
- Physical disruption of membrane lipids ^{7,9}
- Bacterial cell walls ^{11, 12-14}

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. **TECcare CONTROL** causes rapid and significant changes at multiple sites within the microbe, attacking these essential microbial structures and components. The result is a rapid microbial kill of bacteria, viruses, fungi and spores. The magnitude of this affect is so great that it is typically lethal to the microbe within minutes of contact (see Table 1).



Gram-positive cell wall

FIGURE 1. The key bacterial structures affected by TECcare CONTROL

Gram-negative cell wall



Membrane lipids

Cell wall

Membrane proteins

Peptidoglycan

MICROBIAL CLASS	ANTIMICROBIAL EFFICACY TEST*	CONTACT TIME (MINUTES)	LOG REDUCTION
BACTERIA (Gram-positive/ Gram-negative)	EN 1276 ¹⁵ , EN 13727 ¹⁶ , EN 16615 ¹⁶	1	>6
	AOAC - Bactericidal ¹⁷	10	>6
VIRUSES (enveloped and non-enveloped)	EN 14476 ¹⁸	5	>4
	AOAC - Virucidal ¹⁹	5	>4
FUNGI (mould and yeast)	EN 1650 ²⁰ , EN 13624 ¹⁶ , EN 13697 ¹⁶ , EN 16615 ¹⁶	1	>5
	AOAC - Fungicidal ²¹	10	>6
BACTERIAL SPORES	EN 13704 22	60	>3
MYCOBACTERIA	EN 14348 23	1	>5

TABLE 1.

Antimicrobial efficacy of **TECcare CONTROL** * All testing was performed using hard water and under dirty conditions in order to present the toughest challenge to the **TECcare CONTROL** technology platform.



Efficacy of TECcare CONTROL against microbes:

Extensive testing at independent, accredited laboratories has demonstrated that TECcare CONTROL products offer broad spectrum high level disinfection, as detailed in Table 1.

TECcare CONTROL gives a greater than Log 3 reduction in *C. difficile* spores within a 60 minute contact time when used with hard water and under 'dirty' conditions.²²

In general, quaternary ammonium compounds are not recognised sporicides.¹¹ However, DDAC is a highly effective biocide ¹⁰ and one specific DDAC product has previously demonstrated very high levels of sporicidal activity, in line with chlorine dioxide disinfectants. ²⁴



Unique technology platform

In addition to high levels of antimicrobial efficacy **TECcare CONTROL** is fragrance free, chlorine free, alcohol free, and exhibits the following key qualities when in use:-

- Non-corrosive
- Non-flammable
- Eradicates odours
- Prolonged antimicrobial effect
- Food safe (requires rinse)
- No residue
- Excellent materials compatibility
- Cost effective
- Excellent levels of user acceptance
- Easy to use



Frequency of use:

TECcare CONTROL products clean and disinfect simultaneously and therefore only require a single stage process to achieve the highest levels of cleanliness. If local policy dictates a two-stage process (clean, then disinfect) then TECcare CONTROL is suitable for either stage of this process.

To get the best results, **TECcare CONTROL** should be used frequently (ideally daily) and it should be used in place of your standard cleaning and / or disinfection products, becoming an integral part of your normal cleaning processes.





Suitable for use in all environments, including:

- Catering / food preparation and processing
- Healthcare
- Travel and leisure / hospitality
- Water systems / water treatment
- Education
- Supermarkets
- Offices
- Fulfilment, transport and logistics
- Petro-chemicals
- Veterinary
- Agriculture
- Pharmaceutical



















References

- 1. Eastmead L. Adopting a new cleaner disinfector to optimise cleanliness and improve the staff experience. National Infection Prevention Society Conference, London 2013. Poster Presentation
- 2. Keward J. Disinfectants in health care: finding an alternative to chlorine dioxide. Br J Nurs. 2013 Sep 12-25; 22(16):926, 928-32.
- 3. Lowe S. Adopting a chlorine-free sporicidal wipe into clinical practice as part of a comprehensive care bundle to help reduce HCAI incidence. National Infection Prevention Society Conference, London 2013. Poster Presentation.
- 4. Embleton G. Improving process efficiency and medical device cleanliness at a foundation trust by adopting a new combined cleaner/disinfector into routine use in a busy medical device library. National Infection Prevention Society Conference, Glasgow 2014. Poster Presentation.
- 5. Lees K. Using a new low temperature, non-corrosive laundry system to improve the cleanliness of high performance mattresses and reduce energy costs associated with the laundry process. National Infection Prevention Society Conference, Glasgow 2014. Poster Presentation.
- Woodall C. Phase 3 testing on an ultra-high level sporicidal disinfectant: the missing link between laboratory based efficacy and clinical performance? National Infection Prevention Society Conference, Glasgow 2014. Poster Presentation.
- Rutala WA, Weber DJ and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Guideline for disinfection and sterilization in healthcare facilities, 2008. [homepage on the internet]; 2008. [cited 2013 Dec 10] Available from: http://www.cdc.gov/hicpac/pdf/guidelines/disinfection_nov_2008.pdf.
- 8. Buck KM. Cleaning and disinfecting: The effects of germicides [homepage on the internet]. Infection Control Today. September 2001 [cited 2013 Dec 9]. Available from: http://www.infectioncontroltoday.com/ articles/2001/09/infection-control-today-09-2001-the-effects-of-ge.aspx.
- 9. Denyer SP, Stewart GSAB. Mechanisms of action of disinfectants. International Biodeterioration and Biodegradation 1998 Jan;41:261-8.
- Gomi M, Osaki Y, Mori M, Sakagami Y. Synergistic bactericidal effects of a sublethal concentration of didecyldimethylammonium chloride (DDAC) and low concentrations of nonionic surfactants against Staphylococcus aureus. Biocontrol Sci. 2012;17(4):175-81.
- 11. McDonnell G, Russell AD. Antiseptics and disinfectants: activity, action, and resistance. Clin Microbiol Rev. 1999 Jan;12(1):147-79.
- 12. Ioannou CJ, Hanlon GW, Denyer SP. Action of disinfectant quaternary ammonium compounds against Staphylococcus aureus. Antimicrob Agents Chemother. 2007 Jan;51(1):296-306.
- 13. Salton MR. Lytic agents, cell permeability, and monolayer penetrability. J Gen Physiol. 1968 Jul 1;52(1):227-52.
- 14. Maillard JY. Bacterial target sites for biocide action. J Appl Microbiol. 2002;92 Suppl:16S-27S.

- 15. Hospital Infection Research Laboratory. Efficacy tests (EN1276). EN1276 Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas (phase 2/step 1). Hospital Infection Research Laboratory, Birmingham, UK. February 2008. Data on file, TECcare Antimicrobial Technologies.
- 16. Melbec Microbiology Laboratories (UKAS). EN efficacy test. Rossendale, Blackburn, UK. Data on file, TECcare Antimicrobial Technologies.
- ATS Labs. AOAC Bactericidal efficacy test. Eagan, MN, USA. April 2008. Data on file, TECcare Antimicrobial Technologies.
- 18. BluTest Laboratories Ltd. Test Report: EN14476:2005 Chemical disinfectants and antiseptics – virucidal quantitative suspension test for chemical disinfectants and antiseptics used in human medicine - Test method and requirements (phase 2/step 1) Modified for Feline calicivirus (Human Norovirus Surrogate). Glasgow, UK. November 2012. Data on file, TECcare Antimicrobial Technologies.
- 19. Bioscience Laboratories Inc. AOAC Virucidal efficacy test. Bozeman, Montana (MA) USA. January 2009. Data on file, TECcare Antimicrobial Technologies.
- 20. Manchester University. BS EN 1650 Chemical disinfectants and antiseptics quantitative suspension test for the evaluation of fungicidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas. Manchester, UK. March 2007. Data on file, TECcare Antimicrobial Technologies.
- 21. ATS Labs. AOAC Fungicidal efficacy test. Eagan, MN, USA. April 2008. Data on file, TECcare Antimicrobial Technologies.
- 22. BluTest Laboratories Ltd. Test Report: EN13704:2002 Chemical disinfectants – quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas – (phase 2, step 1), modified. Clostridium difficile endospores. Glasgow, UK. November 2012. Data on file, TECcare Antimicrobial Technologies.
- 23. BluTest Laboratories Ltd. Test Report: EN14348:2005 Chemical disinfectants and antiseptics – quantitative suspension test for the evaluation of mycobactericidal activity of chemical disinfectants in the medical area including instrument disinfectants – test methods and requirements (phase 2, step 1). Glasgow, UK. December 2014. Data on file, TECcare Antimicrobial Technologies.
- Speight S, Moy A, Macken S, Chitnis R, Hoffman PN, Davies A, Bennett A, Walker JT. Evaluation of the sporicidal activity of different chemical disinfectants used in hospitals against Clostridium difficile. J Hosp Infect. 2011 Sep;79(1):18-22.



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Unit 1A, Watchmoor Road, Camberley, Surrey, GU15 3AQ T. 01276 676 006 | E. info@sourcesupplies.co.uk

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Product Specification

Liquid:
Pack quantity:
Case quantity:
Euro pallet quantity:
Case order code:

TECcare CONTROL
1 Litre
6 packs
56 cases
FLU-CCO-1000-06

TECcare CONTROL is available as a fluid concentrate and is intended to be diluted before use. Once diluted **TECcare CONTROL** is suitable for use with all cleaning systems including cloths, mops, microfibre etc.; hand sprayers, electric / manual sprayers and floor cleaning devices, and it is ideal for complete disinfection of large areas and pieces of equipment.

