

## Key Features

CONTROL offers high levels of antimicrobial activity (it carries on working and is a persistent solution) and is fragrance free, chlorine free, alcohol free and exhibits the following key qualities when in use,

Non-corrosive, Non-irritant, Non-toxic, Food safe, Safe in use with excellent levels of user acceptance and come with a prolonged antimicrobial effect and excellent material compatibility.

## What is CONTROL?

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

CONTROL is based around the quaternary ammonium compounds didecylmethyl ammonium chloride (DDAC) and benzalkonium chloride (BAC) with an adjuvant effect to enhance its anti microbial efficacy.

The advanced technology within the CONTROL product has resulted in the production of a 6th generation quaternary ammonium compound (QAC).

## What has it been designed for?

CONTROL has been developed for high level disinfection of hard and soft surfaces, environments, equipment and air. It is to be used in areas in which the reduction of bioburden is needed to be achieved, to enable the interruption of key transmission pathways (surfaces and air) and reduce the risk of cross infection and contamination.

CONTROL has also been specifically developed to be sprayed through our electrostatic sprayers, to be used at the disinfection stage of the cleaning process or as well as the cleaning part of a protocol.

## How does CONTROL effect microbes?

CONTROL is a powerful lytic agent which is based on the quaternary ammonium compounds benzalkonium chloride and didecylmethyl 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. CONTROL 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 CONTROL?

CONTROL, is a high level broad spectrum disinfectant cleaner which is effective against all microbial classes up to and including bacterial spores. See below table of extensive testing performed:

MICROBIAL CLASS	EFFICACY TEST	CONTACT TIME (Mins)	LOG REDUCTION
BACTERIA (gram + / Gram -)	EN 1276	1	> 6
	AOAC—Bactericidal	10	> 6
VIRUSES (enveloped and non enveloped)	EN 14476	5	> 4
	AOAC—Virucidal	5	> 4
FUNGI	EN 1650	1	> 5
	AOAC—Fungicidal	10	> 6
BACTERIAL SPORES	EN 13704	60	> 3
MYCOBACTERIA	EN 14563:2008	5	> 5



### AVAILABLE IN:

4 x 5L - 60ml in each 5L  
Just add water  
Green concentrate

## ORGANISM LIST

**DISINFECTION PERFORMANCE:** This product kills the following bacteria in 10 minutes on hard, non-porous surfaces:

*Acinetobacter baumannii* {(ATCC 19003)}  
*Acinetobacter Iwoffii* {(ATCC 9957)}  
*Acinetobacter Iwoffii* {(ATCC 15309)}  
*Bordetella bronchiseptica* {(ATCC 10580)}  
*Chlamydia psittaci* {(VR-125)}  
*Citrobacter freundii* {(ATCC 8090)}  
*Enterobacter agglomerans* {(ATCC 27155)}  
*Enterobacter aerogenes* {(ATCC 13048)} }  
*Enterobacter cloacae* {(ATCC 13047)}  
*Escherichia coli* {(ATCC 11229)}  
*Escherichia coli* O111:H8 {(ATCC BAA-184)}  
*Escherichia coli* {(Carbapenem Resistant)} {(CDC 81371)}  
*Escherichia coli* {(Extended Spectrum B-Lactamase)} {(ESBL)}  
{(ATCC BAA-196)}  
*Escherichia coli* {(Tetracycline Resistant)} {(ATCC 47041)}  
*Enterococcus faecalis* {(ATCC 19433)}  
*Enterococcus hirae* {(ATCC 10541)}  
*Fusobacterium necrophorum* {(ATCC 27852)}  
*Klebsiella oxytoca* {(ATCC 13182)}  
*Klebsiella pneumoniae* {(ATCC 13883)}  
*Klebsiella pneumoniae* {(NDM-1 positive)}  
{(New Delhi metallo-beta-lactamase)} {(CDC 1000527)}  
*Listeria monocytogenes* {(ATCC 19117)}  
*Micrococcus luteus* {(ATCC 14452)}  
*Micrococcus luteus* {(ATCC 4698)}  
*Pasturella multocida* {(ATCC 12947)}  
*Proteus vulgaris* {(ATCC 9920)}  
*Proteus vulgaris* {(ATCC 13315)}  
*Pseudomonas aeruginosa* {(ATCC 15442)}  
*Pseudomonas aeruginosa* {(Tetracycline Resistant)} {(ATCC 27853)}  
*Pseudomonas cepacia* {(ATCC 25416)}  
*Salmonella enterica* {(ATCC 23564)}  
*Salmonella enterica* {(ATCC 10708)}  
*Salmonella enteritidis* {(ATCC 4931)}  
*Salmonella enterica serotype pullorum* {(ATCC 19945)}  
*Salmonella typhi* {(ATCC 6539)}  
*Salmonella typhimurium* {(ATCC 23564)}  
*Serratia marcescens* {(ATCC 9103)}  
*Serratia marcescens* {(ATCC 14756)}  
*Shigella flexneri* {(ATCC 9380)}  
*Shigella flexneri* {(ATCC 12022)}  
*Shigella sonnei* {(ATCC 25931)}  
*Staphylococcus aureus* {(ATCC 6538)}  
*Staphylococcus aureus* {(ATCC 25923)}  
*Staphylococcus aureus* {(sub species aureus)} {(ATCC 33586)}  
*Staphylococcus aureus* {(ATCC 14154)}  
*Staphylococcus aureus* {(Community Associated Methicillin Resistant)}  
{(CA-MRSA)} {(Genotype USA 300)}  
*Staphylococcus aureus* {(Community Associated Methicillin Resistant)}  
{(CA-MRSA)} {(Genotype USA 400)}  
*Staphylococcus aureus* {(Methicillin Resistant)} {(MRSA)} {(ATCC 33592)}  
*Staphylococcus epidermidis* {(ATCC 14990)}  
*Staphylococcus epidermidis* {(Antibiotic resistant)} {(ATCC 51625)}  
*Streptococcus agalactiae* {(ATCC 13813)}  
*Staphylococcus haemolyticus* {(ATCC 29970)}  
*Streptococcus pneumoniae* {(Penicillin Resistant)} {(ATCC 51915)}

*Streptococcus pyogenes* {(ATCC 19615)}  
*Streptococcus mutans* {(ATCC 25175)}  
*Enterococcus faecalis* {(Vancomycin Resistant)} {(VRE)} {(ATCC 51299)}  
*Staphylococcus aureus* {(Vancomycin Intermediate Resistant)} {(VISA)}  
{(HIP 5836)}  
*Vibrio cholera* {(ATCC 11623)}  
*Yersinia enterocolitica* {(ATCC 23715)}

**VRUCIDAL\* PERFORMANCE:** This product kills the following viruses in 10 minutes on hard, non-porous surfaces:

Avian Influenza A {(H5N1)} Virus  
Avian Influenza A {(H3N2)} Virus {(Avian Reassortant)} {(VR-2072)}  
Cytomegalovirus {(VR-538)}  
Coronavirus {(SARS-associated)}  
Hantavirus  
Hepatitis B Virus {(HBV)}  
Hepatitis C Virus {(HCV)}  
Herpes Simplex Virus Type 1 {(VR-733)}  
Herpes Simplex Virus Type 2 {(VR-734)}  
Human Coronavirus {(VR-740)}  
Human Immunodeficiency Virus Type 1 {(HIV 1)} {(AIDS Virus)}  
Influenza A {(H1N1)} Virus {(VR-1469)} {(Strain A/PR/8/34)}  
Influenza A Virus {(H3N2)} {(Hong Kong Strain)} {(VR-544)}  
Respiratory Syncytial Virus {(VR-26)}  
Vaccinia Virus {(VR-119)}

**ANIMAL PREMISE VRUCIDAL\* PERFORMANCE:** This product kills the following viruses in 10 minutes on hard, non-porous surfaces:

Avian Infectious Bronchitis Virus {(Strain Beaudette IB42)}  
Avian Influenza A Virus {(H5N1)}  
Avian Influenza A Virus {(H3N2)} {(Avian Reassortant)} {(VR-2072)}  
Canine Coronavirus {(VR-809)}  
Canine Distemper Virus {(VR-128)}  
Feline Picornavirus {(VR-649)}  
Infectious Bovine Rhinotracheitis Virus {(VR-188)}  
Pseudorabies Virus {(VR-135)}  
Swine Influenza A Virus {(H1N1)} {(Strain A/Swine/Iowa/15/30)} {(VR-333)}  
Transmissible Gastroenteritis Virus {(TGE)} {(Clinical Isolate)}

This product kills the following viruses in 10 minutes at 2 oz. per gal. of water and 5% soil on hard, non-porous surfaces:

Canine Parvovirus\*\* {(CPV)} {(VR-2017)}  
Mice\*\* {(Parvovirus)} {(VR-1346)} {(Not for use in CA.)}  
Rabies\*\*  
Porcine Parvovirus\*\* {(VR-742)}

\*\* Indicates that a dilution is required for this claim.

**NON-FOOD CONTACT SANITIZING PERFORMANCE:** This product is an effective one-step sanitizer in 3 minutes on hard, non-porous surfaces:

*Klebsiella pneumoniae* {(ATCC 4352)}  
*Staphylococcus aureus* {(ATCC 6538)}

**FUNGICIDAL PERFORMANCE:** This product kills the following fungi in 10 minutes on hard, non-porous surfaces:

*Trichophyton mentagrophytes* {(ATCC 9533)} {(Athlete's foot fungus)} {(a cause of Ringworm)}

**MILDEWSTATIC PERFORMANCE :** This product controls the following mold in 10 minutes on hard, non-porous surfaces:

*Aspergillus niger* {(ATCC 16404)}