



Eco Statics Global Ltd

A new protocol that is revolutionary, effective, positively disruptive and a safer for everyone in cleaning and disinfecting all environments.

E-SHIELD™ & E-PACK™



SCIENCE
EMPOWERING
MOTHER NATURE



Our mission

SCIENCE EMPOWERING NATURE?

With a combination of science, natural products (revolutionary persistent solutions) and the latest technological application devices (electrostatic sprayers), we are revolutionising the cleaning process across all industries, whilst ensuring all responsible parties take care of their users and their environments. Currently we are asking Mother Nature to fight against ALL the other chemicals that have been applied to substrates and to remove them first, before they start on the actual problem of bad bacteria, pathogens and odours - the actual reason so many chemicals were applied in the first place. When you think about it - it makes sense!

As one of her greatest advocates we empower, support and preserve Mother Nature's environment to help her get back to basics, and fighting fit naturally!

CHANGING THE WAY YOU CLEAN AND DISINFECT YOUR ENVIRONMENT

The cleaning process used in the modern day is flawed in many ways and, with your help and our support, we are going to change this. The current cleaning and disinfecting process in most environments involve walking into a room with a trigger sprayer, cloths and spray across all surface areas followed by wiping down. This process can be ineffective, harmful to the user (strong chemicals) and the environment and also incredibly time consuming. There are many reasons why we make this statement - so please contact us to find out why!!

The problems with current basic cleaning processes

Cleaning is about removing the bio-burden on the surface and preventing outbreaks. Lack of knowledge and understanding of chemicals / products that are being used as well as poor application methods make current processes flawed. Cleaners have been educated / taught to spray and wipe almost immediately therefore not understanding if the surface is even dirty or whether the product, they are spraying needs to be left on the surface for a required period of time to comply with EN testing. For example, a product that needs to be on the surface for up to 5 minutes (tested to EN standards) to kill bacteria, is sprayed on and virtually wiped off instantly, meaning that it is an ineffective way of cleaning and disinfecting - they are in most cases also harmful to the user.

*No matter what area of cleaning - Eco Statics is here to support...
Cut down on plastics and use one sprayer and reusable fluid tanks time and time again along with Eco friendly biodegradable chemicals...*



As it is currently! Most of our everyday chemicals are harmful to the environment, use single use plastics and are not compatible to many surfaces. Most of chemicals are harmful to the user & are used ineffectively. Spraying and wiping down every surface can take a long time due to the manual and ineffective delivery devices of trigger sprayers and cleaning cloths which harbour bacteria, create drips, runs and do not hit shadowed & hidden areas.

As it is currently with Eco Statics! ALL our fluids are in concentrate (recycled pouches or 2nd recycled pots) The user just adds the contents of the ampules into the water that is in the sprayer tank so NO single use plastics. All our fluid boxes are recycled and stuck together with vegetable glue and we even use Eco recycled ink!!

Our electrostatics sprayers use 65% less chemical & apply direct to the surface. Our fluids have minimal chemical in. In a 5L (5000ml) container - Control has 0.08% and Ultra has 0.68%. Daily has NO chemical as does our new hand wash (plant based) and both are 100% biodegradable (unlike washing up liquid!)

'Possession of a pathogen in your space means that you have taken ownership of the risks and liabilities associated with those pathogens on your unhealthy surfaces, walls and environment.

The demands, costs, and personnel required to stay ahead of mobile pathogens without the use of innovative application technologies (sprayers and fluids) makes the expectation and delivery of proper surface cleaning and disinfection unrealistic.'

Eco Statics Cleaning and Disinfection System.

Our revolutionary new protocol, **E-Pack™** a complete cleaning and disinfection system, whereby an environment (whole room) can be maintained with ease, effectively cleaning organic matter (the source of outbreaks), killing pathogens and bacteria, and is not harmful to the user or the environment.

The **E-Pack™** system is any combination of our revolutionary electrostatic sprayers, accessories and eco - solutions that 'Empowers Mother Nature', the greatest defence system on the planet!



Eco Statics Cleaning and Disinfection System

E-Pack™



It allows the fight against bacteria to start on a level playing field, and enables the solution to reach the bad bacteria and organic matter first, whereas before it had to fight through multiple chemical remnants...

Effectiveness Why would you allow a cleaner into a room without them knowing what is on the surfaces or on the walls? We help protect the user, with our electrostatic sprayers and eco solutions, by spraying the walls and all surfaces with our 'ULTRA' product, we conduct an initial deep clean which kills pathogens.

E-Shield Initial process allows our solutions to be effective against pathogens as it starts to work within 10 seconds and is also persistent, meaning the efficacy of the solution is met and the user is protected before they carry out a physical clean. The cleaner will then post clean using DAILY as it d-structures visible dirt or marks. A further spray could be applied if required if a lot of soiling has been removed although the DAILY product uses the same technology to deep clean the surfaces and delivers / prepares the right surface for 'CONTROL' weekly.

Our products start to work within 10 seconds of attaching to the surface, therefore spot cleaning can be carried out with a cloth whilst the solution is still wet on the surface.

We use DAILY for a daily clean, CONTROL for controlling the environment weekly and ULTRA for a monthly / bi decontaminate.

Environment E-Shield is eco-friendly, safe for use and they empower Mother Nature as she is not having to fight against other harmful chemicals first before starting on the day job!

E - Shield empowers Mother Nature back to basics by protecting our environment allowing "DAILY, CONTROL & ULTRA" to work on the bio burden (organic matter) on the surface which is a primary cause of outbreaks.

Time The Victory electrostatic sprayers allow large surface areas to be covered in minutes using 65% less solution and immensely quicker than a trigger spray.

Therefore applying 65% less solution, covering more areas and using less chemicals means we are again empowering Mother Nature to take back control and protect the environment we all work and play in...



Revolutionary Electrostatic Technology

Electrostatics is the process of adding an electrical charge to the liquid droplets when they are sprayed. When you spray a solution that is properly charged with electrostatics the solution will envelop the targeted object to provide an even 360 coating, adhering to hidden and shadowed areas, with no runs or drips on vertical surfaces, delivering rapid and effective disinfection to all surfaces and areas.



VP200ES

Victory Electrostatic Sprayer - Hand Held

Features

- Completely portable
- On / Off electrostatic switch
- Double locking tank
- Self-sealing tank
- Trigger lock
- 3-way interchangeable nozzle
- Wrapping effect
- Air intake and cooling vents
- Stainless steel grounding strip
- Quiet operation
- Automatic torch at tip of nozzle
- Hard travel case

Specification

- 3400 mAh Lithium Ion Battery (4 hours Spray Time / 1 Hour Charge Time)
- Positive Electrostatic charge
- Micron Sizes 40/80/110
- Flow Rates 82/106/325 ml/min
- 2 - 4 feet spray range
- 1.7 KG in weight (empty)
- CE marked
- 1 Litre tank capacity
- 8 Bar Pressure



VP300ES

Victory Electrostatic Sprayer - Back Pack

Features

- Completely portable
- Light weight wand
- Self standing unit
- Ergonomic strapping
- Double locking tank
- LED battery lights
- 3 Way nozzle
- Wrapping effect
- Stainless steel grounding strip
- Quiet operation
- Liquid filter
- Durable and flexible chords

Specification

- 3400 mAh Lithium Ion Battery (4 hours Spray Time / 1 Hour Charge Time)
- Positive Electrostatic charge
- Micron Sizes 40/80/110
- Flow Rates 106/127/370 ml/min
- 4 - 7 feet spray range
- 5.5 KG in weight (empty)
- CE Marked
- 8 Litre tank capacity
- 12 Bar pressure

E-Shield™

DAILY

ULTRA

CONTROL

PROTECT

WASH

E-Shield™ Solutions

E-Shield range of Eco-friendly water-based, safe in use cleaning, disinfecting and sanitising solutions have been specifically created to help protect the health and wellbeing of people and animals in any environment and in any industry. All E - Shield solutions are bactericidal, virucidal and fungicidal and exhibit the following key qualities in use: non-corrosive, non-irritant, non-toxic, food safe, safe in use.

Below is a summary of our main solutions of which DAILY, ULTRA and CONTROL have been specifically designed and tested to be sprayed through the Victory electrostatic sprayers. We also supply laundry detergent and conditioner disinfectant along with a renovator that removes lime-scale that can be used as a bleach replacement.

DAILY It uses the same adjuvant that is in our other products and should be used as a chlorine tablet, and bleach alternative. Recommended for use as an every day part of your cleaning routine and for washing clothes. DAILY will set up and maintain the perfect surface for CONTROL to be applied weekly and will not interfere / conflict with each but support the cleaning and disinfection mode of action. DAILY has no kill claims and requires NO PPE and is safe for the user. A revolutionary high-level cleaner for all business and industries with no environmental impact.

ULTRA has been formulated in a reacted mass of peracids to create a highly effective cleaner and disinfectant which removes dirt that harbours mould, fungi and yeast. It kills C-Diff in under 2 minutes and offers up to 48 hours antimicrobial activity (it carries on working as a persistent solution). It is fragrance free, chlorine free, and degrades / decomposes into safe by-products after use (water and oxygen). It is easy to use with excellent levels of user acceptance with a prolonged antimicrobial effect and excellent materials compatibility.

CONTROL has been formulated to clean and disinfect using only 0.08% of chemical in a 5-litre bottle, and offers high levels of antimicrobial activity as it carries on working as a persistent solution. In concentrate format it is green in colour, fragrance free, chlorine free, alcohol free and provides excellent levels of user acceptance with prolonged antimicrobial effect, with excellent material compatibility and empowering Mother Nature. CONTROL carries on working on the air in your environment as it passes over removing harmful VOC's.

PROTECT is water based, alcohol free and simultaneously sanitises and moisturises the skin. It is non-flammable, alcohol free, cost effective and easy to use with excellent levels of user acceptance and prolonged antimicrobial effect for up to 2 - 4 hours after application, whilst protecting and enhancing your own hands self defence system unlike alcohol which strips it away and leaves it unprotected. It conforms to EN 1500 and is an antiseptic so can be applied to cuts and grazes.

WASH (NEW) Plant derived & completely biodegradable hand, body and hair wash! No synthetic chemicals, non irritating & protects skin structure.

E-SHIELD - Creates a **HOSTILE, TENSIVE SURFACE ENVIRONMENT** for **ALL** pathogens where the bacteria **CANNOT STICK** to the surface, causing the bacteria to **STRESS** whilst **NOT ALLOWING** them to **GROW** and **REPLICATE** on the surface!

Our **VICTORY** sprayers **APPLY 65% LESS FLUID** whilst adding a **MICROSCOPIC CATIONIC ELECTRICAL CHARGE** into the fluid making it incredibly **POTENT**. Combined with the **UNTENABLE** surface for bacteria it **RESULTS IN DEATH** for **ALL** pathogens!

How does **DAILY** actually clean?

DAILY is a daily cleaning solution that eats through organic matter and dirt. It is to be used daily as part of your cleaning protocol and has been designed and developed to break down oils, lipids, dried body fluids and organic matter by using the **same adjuvant** that is in all our products. Just as the same way Ultra and Control kill bacteria, Daily breaks them down and can be wiped if physical removal of heavily soiled surfaces.

We have tested Daily but as it is just used as a cleaning detergent we do not sell it with any kill claims and recommend that it should be used in place of Chlorine tablets and bleach as it is safer and far more effective. It is also far safer for the person spraying and the environment, whilst cleaning the substrate that it has been sprayed onto through our electrostatic sprayers ensuring the perfect base for CONTROL.

- NO Bioaccumulation
- Test data by independent GLP, GMP and ISO laboratories
- Non-toxic, free from phosphates, parabens and preservatives.
- No VOC's and cleans at pH neutral

DAILY has total rapid biodegradable cleaner with NO Bioaccumulation in the environment or on surfaces, which means NO environmental impact on Mother Nature. DAILY can be used with Organic and Non-organic substrates. It has No VOC's, cleans at pH neutral breaking down oils, lipids, dried body fluids and organic matter.

It is smear and streak free and Non - hazardous & completely Non - toxic along with being free from phosphates, parabens and preservatives. Daily originates from renewable sustainable organic sources (supporting test data). Global SDS show zero risks to skin, inhalation and eyes (Substantiated and produced by Global chemical lawyers) and requires NO PPE. Test data by independent GLP, GMP and ISO laboratories, ensuring the perfect base for CONTROL and ULTRA.

DAILY

Eco Statics Cleaning & Disinfection System

E-Shield™
and
E-Pack™

ULTRA

How does **ULTRA** affect microbes?

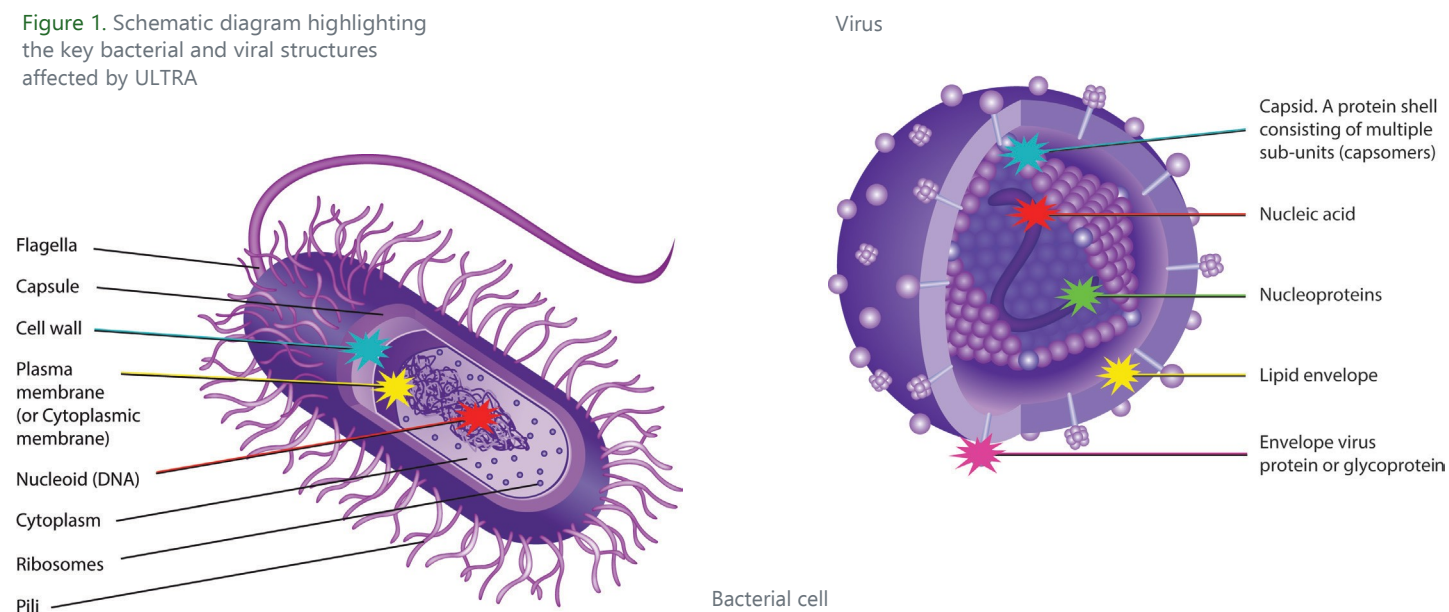
ULTRA is an ultra-high level, broad spectrum disinfectant which is effective against all microbial classes up to and including bacterial spores (see the E-Shield Overview table for a summary of its antimicrobial efficacy). ULTRA has been developed for very high-level disinfection of all hard and soft surfaces, environments, equipment and air. It is the hydroxyl free radicals produced by ULTRA which are responsible for its potent antimicrobial activity (see Figure 1). Hydroxyl free radicals have multiple points of action on microbes which include: -

- Attacking membrane lipids
- Breaking apart nucleic acids (DNA and RNA)
- Denaturing proteins
- Disrupting cell wall permeability
- Oxidation of sulfhydryl and sulphur bonds in proteins, enzymes and other metabolites

Proteins, lipids and nucleic acids are essential components of bacteria, viruses, fungi and bacterial spores. Significant damage to one or more of these components is fatal for the microbe.

The destructive nature of hydroxyl free radicals coupled with multiple points of action result in ULTRA having a lethal effect on microbes within seconds / minutes of initial contact.

Figure 1. Schematic diagram highlighting the key bacterial and viral structures affected by ULTRA



How does **CONTROL** affect microbes?

CONTROL is a high level, broad spectrum disinfectant cleaner which is effective against all microbial classes up to and including bacterial spores (see the E-Shield Overview table for a summary of its antimicrobial efficacy). CONTROL has been developed as a combined high-level disinfectant / cleaner for all hard and soft surfaces, environments, equipment and air. CONTROL is a powerful lytic agent which is based on the quaternary ammonium compounds benzalkonium chloride and didecylmethyl ammonium chloride. Quaternary ammonium compounds have multiple affects and points of action within the microbe include: -

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

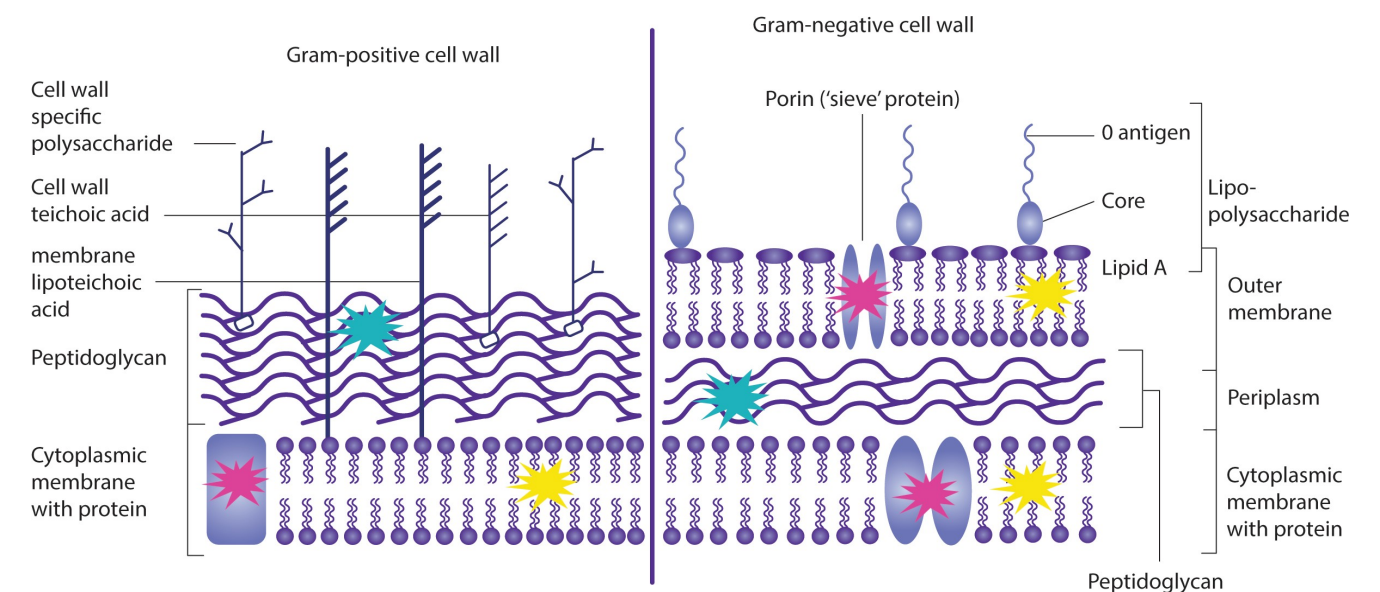
Proteins and lipids are essential components of bacteria, viruses, fungi and bacterial spores. Significant damage to these key microbial components is often fatal for the organism. CONTROL causes rapid and significant changes at multiple sites within the microbe. The magnitude of this affect is so great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

Bio-film - Control works by breaking down the EPS (glue / matrix which acts as the protective diffusion barrier around bacteria), typically a polymeric conglomeration of extracellular polysaccharides, proteins, lipids and DNA. Therefore we enable penetration of the bio-film on the bacterium killing aerobic and anaerobic bacteria within the bio-film colonies.

CONTROL

Figure 2. Schematic diagram highlighting the key bacterial structures affected by CONTROL

- Membrane lipids
- Membrane proteins
- Cell wall





How does **PROTECT** affect microbes?

PROTECT has been developed as a skin sanitiser for use in situations where skin and hand hygiene are of paramount importance. It is a disinfectant / antiseptic and offers safe, effective, user friendly skin cleansing, disinfection and sanitation with high levels of antimicrobial efficacy, as summarised in the E-Shield Overview table.

PROTECT is a strong lytic agent based upon the quaternary ammonium compound benzalkonium chloride.

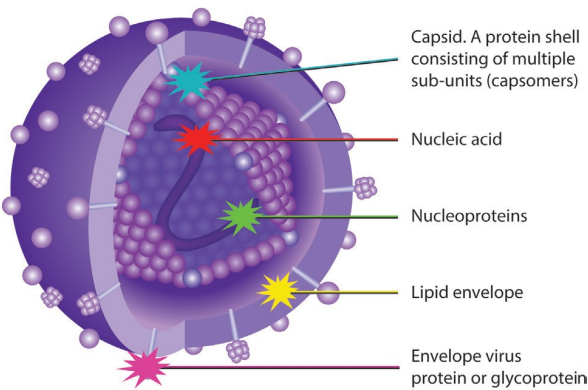
Quaternary ammonium compounds have multiple affects and points of action within the microbe (see Figure 3) which include: -

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

Proteins and lipids are essential components of bacteria, viruses, and fungi and if significant damage to these key microbial components is completed it is fatal for the organism.

PROTECT causes rapid and significant changes at multiple sites within the microbe. The magnitude of this affect is so great that it is typically lethal to the microbe within minutes of contact.

Figure 3. Schematic diagram highlighting the key viral structures affected by PROTECT



How contagious is norovirus?

Just a **very small amount** - as few as 18 viral particles - of norovirus on your food or your hands can make you sick.

That means the amount of virus particles that fit on the head of a pin would be enough to infect **more than 1,000 people!**

The Eco Statics **PROTOCOL**



1. Choose either the VP200ES or the VP300ES depending on your environment and the area to spray.
2. Spray the area with ULTRA (initial deep clean or treatment / outbreak). Spray every month or 2 months for a deep clean and ground zero effect. ULTRA kills C - Diff within 2 mins. Use CONTROL daily or weekly and it will prevent outbreaks. CONTROL kills C - Diff in 60 mins as it is a persistent solution and does not require instant kill. If CONTROL is used daily and it will provide the ultimate protection for your environment with a monthly application of ULTRA.
3. If you are looking for a DAILY clean and a completely safe and biodegradable cleaner then this is a fantastic replacement or alternative to using chlorine tablets, this is your product. Just spray and it will attack organic matter, break it down safely and creates the perfect base for our persistent solutions of CONTROL and ULTRA.
4. Weekly we suggest you spray with CONTROL (a persistent solution) to all areas, which include, walls carpets, surfaces and more. As this product continues to work for 4 weeks (white paper on killing MRSA on the walls). It continues to clean the environment you work and live in by removing harmful VOC's in the air.
5. For spillages and soiling use ULTRA first as it will kill the pathogens within the spillage or soiling, thus rendering it harmless to be removed and clean it up with DAILY.
6. Utilise PROTECT hand sanitiser on a 2 - 4 hourly basis on a daily basis.
7. Keep the environment tidy, spot clean wiping away stains or debris on a daily basis and for this you can use a micro fibre or we can supply our biodegradable wet wipes (and yes they do biodegrade in 6 months) which are coated in CONTROL to ensure you maintain some antimicrobial activity on the surface.
8. Alternatively, just spray and wipe whilst the solution that you have applied is still moist on the surface.

To understand cleaning you need to understand what cleaning really is and for this we have outlined where you can use our solutions and remembering that using them in our sprayers (which they have been designed to do) you will spray more 65% more areas (or 65% less product), along with an even coating and so much faster along with not worrying about drips on vertical surfaces and hidden and shadowed areas. Remove all other cleaning products!

The below chart shows where you can use our solutions and in what scenarios: -

Routine	DAILY	ULTRA	CONTROL	PROTECT
Daily	✓	✓	✓	✓
Weekly			✓	
Monthly		✓	✓	
Bi-Monthly		✓		
Specifics				
Spillage	✓	✓	✓	
Soiling	✓	✓	✓	
Deep Clean		✓		
Outbreak		✓		

E-SHIELD™

OVERVIEW

TECHNOLOGY ATTRIBUTES / FEATURES			DAILY	ULTRA	CONTROL	PROTECT
TRANSMISSION PATHWAYS	Environmental surfaces		○	○	○	
	Air			○	○	
	Hands / skin					○
ANTIMICROBIAL EFFICACY	EN test certificates	EN 1500 (Bactericidal)				○
		EN 1499:2013 (Bactericidal)				○
		EN 1276 (Bactericidal)		○	○	
		EN 14476 (Virucidal)		○	○	○
		EN 1650 (Fungicidal)		○	○	○
		EN 13704 (Sporicidal) EN 13697 (Sporicidal)		○	○	
		EN 14563 / EN 14348 (Mycobactericidal)		○	○	
	AOAC test certificates	Bactericidal		○	○	
		Virucidal		○	○	
		Fungicidal		○	○	○
		Sporicidal		○		
	FDA monograph (bacteria)					○
KEY FEATURES	Non-corrosive		○	○	○	○
	Non-irritant		○	○	○	○
	Non-toxic		○	○	○	○
	Non-flammable		○	○	○	○
	Safe in use		○	○	○	○
	Prolonged antimicrobial effect		○	○	○	○
	Fragrance free		○	○	○	○
	Food safe		○	○	○	○
	Decomposes into oxygen and water after use		○	○		
	No loss in efficacy over time		○	○	○	○
	No residue		○	○	○	○
	Chlorine free		○	○	○	○
	Alcohol free		○	○	○	○
	Excellent materials compatibility		○	○	○	n/a
	All in-vitro testing performed in accredited laboratories		○	○	○	○
USES	Disinfection			○	○	
	Cleaning		○	○	○	
	Hand and skin hygiene					○
APPROVALS / REGISTRATIONS / COMPLIANCE	Regulatory approvals		○	○	○	○
	CE marked			○	○	○
	OSHA			○	○	○
	ASTM Corrosion Testing		○		○	○

Eco Statics Global Ltd

1 Amelia Court Business Park, Swanton Close,
Retford, Nottinghamshire DN22 7HJ, UK Tel. +44 (0) 3452 247 582

W - www.ecostatics.com / E - contact@ecostatics.com

