

Surface's - Clean & Disinfect (examples)

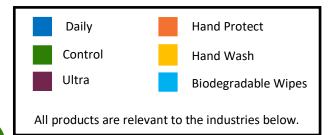
HOSPITALS

MRSA Norovirus Clostridium Perfringens Influenza Pseudomonas aeruginosa Salmonella E.coli Listeria

GYM'S

Staphylococus Aureus Influenza Norovirus MRSA Pseudomonas aeruginosa

Eco Statics Global Ltd



SUPERMARKETS

Campylobacter

E-Coli

Coliform

Salmonella

SCHOOLS / UNI'S

Norovirus Hand Foot & Mouth Scarlett Fever Influenza

FOOD MANUFACTURING & FARMS

E.coli Salmonella Listeria Campylobacter Clostridium Perfringens - vegetative Avian influenza Bird Flu H5M1

CAREHOMES

MRSA
Norovirus
Influenza
Staphylococcus Aureus
C-Diff

CRUISE LINERS

Norovirus

Staphylococcus Bacteria

MRSA Propionibacterium

Clostridium Perfringens

PUBLIC TRANSPORT

Buses

Staphylococcus Aureus Aeromonas Veronii E.coli Acinetobacter Baumannii Norovirus

Tube & Trains

Staphylococcus Aureus Klebsiella Pneumoniae Serratia E.coli Norovirus

Aeroplanes

Norovirus / MRSA / E.coli / Staphylococcus aureus

<u>Daily</u> - is a cleaner and detergent which is not supplied or sold with any kill claims.

However, we carried out an ISO 11930:19 report for internal compliance ONLY and got the following so this is a cleaning detergent with BENEFITS!

Test organism list for Daily

CAR HIRE

Staphylococcus Bacteria MRSA Propionibacterium Norovirus

> Pseudomonas aeruginosa Cryptosporidium Norovirus / E- Coli

Basically - <u>ANY</u> where you currently clean or disinfect surfaces and hands...
E-Shield should be used!

LEISURE CENTRES

Pseudomonas aeruginosa ATCC 9027 - Log kill 5.93 - Pass.
Escherichia coli ATCC 8739 - Log kill 5.89 - Pass.

Staphylococcus aureus ATCC 6538 - Log kill 5.75 - Pass.

Candida albicans ATCC 10231 - Log kill 4.71 - Pass.

Aspergillus brasiliensis ATCC 16404 - Log kill 4.49 - Pass.

Eco Statics Global Ltd - 1 Amelia Court, Swanton Close, Retford Notts DN22 7HJ





ULTRA 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, cost effective, degrades / decomposes into safe by-products after use (water and oxygen), easy to use, excellent levels of user acceptance with a prolonged antimicrobial effect and excellent materials compatibility.

What is ULTRA?

ULTRA is a world class high level sporicidal disinfectant technology offering rapid, safe and effective disinfection across a range of industries from healthcare to education establishments to food processing sites.

The technology within the **ULTRA** product is based on a mass of peracids with an adjuvant effect to enhance its antimicrobial activity. Peracids produce destructive hydroxyl free radicals which are strong oxidising agents. The antimicrobial function of **ULTRA** is similar to other high level sporicidal disinfectants such as peracetic acid and hydrogen peroxide whose primary mechanism of action is also achieved by oxidation as a result of the production of hydroxyl free radicals.

What has it been designed for?

ULTRA 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.

ULTRA has also been specifically developed to be sprayed through our electrostatic sprayers, to be used at the disinfection stage of the cleaning process.

How does ULTRA effect microbes?

The hydroxyl free radicals produced by **ULTRA** are responsible for its potent antimicrobial activity. 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 are the essential components of bacteria, fungi, viruses and bacterial spores and significant damage to one or more of these components is often fatal for the microbe. The destructive nature of the hydroxyl free radicals coupled with multiple points of action result in **ULTRA** having a lethal effect on microbes within seconds / minutes of initial contact.

How effective is ULTRA?

ULTRA is a ultra-high level, broad spectrum disinfectant which is effective against all microbial classes up to and including bacterial spores. See below table for the summary of microbial classes and results of testing.

Ultra - kills C - Diff in under 2 mins.

All our EN and AOAC testing is carried out under Dirty Conditions, Temperature 20 °C, with 1, 5 and 10 - minute contact times.

Microbial Class	Efficacy Test	Contact Time (Mins)*	Log Reduction
BACTERIA	EN 1276	1	>5
(gram +/ Gram-)	AOAC – Bactericidal 6	1	>6
VIRUSES	EN 14476	5	>4
(Enveloped / non-enveloped)	AOAC – Virucidal	5	>4
FUNGI	EN 1650	1	>5
	AOAC – Fungicidal	5	>6
BACTERIAL SPORES	EN13704	1	>6
	AOAC – Sporicidal	5	>6
MYCOBACTERIA	EN14563:2008	5	>4

*As our products are persistent we do not need to comply with contact / dwell times.

AVAILABLE IN: 2 x 5L - 250ml in each container - Just add water.

SPORICIDAL PERFORMANCE AGAINST C. DIFFICILE SPORES:

This product kills and/or inactivates the following spore in 2 minutes on hard, non-porous surfaces:

Clostridium difficile {(ATCC 43598)}

DISINFECTION PERFORMANCE:			
This product kills the following bacteria in 2 minutes on hard, non-porous surfaces:			
Acinetobacter baumannii {(ATCC 19606)}	Bordetella pertussis {(ATCC 12743)}		
Escherichia coli {(ATCC 11229)}	Enterococcus faecalis {Vancomycin Resistant} {(VRE)} {(ATCC 51575)}		
Klebsiella pneumoniae {(ATCC 4352)}	Klebsiella pneumoniae {(ATCC 4352)}Escherichia coli {(Extended Spectrum B-Lactamase)} {(ESBL)} {(BAA-196)}		
Proteus mirabilis {(ATCC 9240)}	Klebsiella pneumoniae {Carbapenem Resistant} {(BAA-1705)}		
Pseudomonas aeruginosa {(ATCC 15442)}	Salmonella enterica {(ATCC 10708)}		
Staphylococcus aureus {(ATCC 6538)}	Staphylococcus aureus {Vancomycin Intermediate Resistant} {(VISA)} {(HIP 5836)}		
Streptococcus pneumoniae {(ATCC 6305)}	Streptococcus pyogenes {(ATCC 19615)}		

This product kills the following bacteria in 2 minutes on hard, non-porous surfaces:		
Acinetobacter baumannii {(ATCC 19606)}	Bordetella pertussis {(ATCC 12743)}	
Enterococcus faecalis {Vancomycin Resistant} {(VRE)} {(ATCC 51575)}	Escherichia coli {(ATCC 11229)}	
Escherichia coli {(Extended Spectrum B-Lactamase)} {(ESBL)} {(BAA-196)}	Klebsiella pneumoniae {(ATCC 4352)}	
Klebsiella pneumoniae {Carbapenem Resistant} {(BAA-1705)}	Proteus mirabilis {(ATCC 9240)}	
Staphylococcus aureus {Methicillin Resistant} {(MRSA)} {(ATCC 33592)}	Salmonella enterica {(ATCC 10708)}	
Staphylococcus aureus {Community Acquired Methicillin Resistant} {(CA- MRSA)} {(Genotype USA300)}	Pseudomonas aeruginosa {(ATCC 15442)}	
Staphylococcus aureus {Community Acquired Methicillin Resistant} {(CA- MRSA)} {(Genotype USA400)}	Staphylococcus aureus {(ATCC 6538)	
Staphylococcus aureus {Vancomycin Intermediate Resistant} {(VISA)} {(HIP 5836)}	Streptococcus pneumoniae {(ATCC 6305)}	
Streptococcus pyogenes {(ATCC 19615)}		

This product kills the following bacteria in 10 minutes:			
Bordetella bronchiseptica {(ATCC 10580)}	Campylobacter jejuni {(ATCC 29428)}		
Corynebacterium ammoiagenes {(ATCC 6872)}	Enterococcus faecalis (Vancomycin Resistant) ((VRE)) ((ATCC 51575))		
Escherichia coli O157:H7 {(ATCC 35150)}	Klebsiella pneumoniae {(ATCC 4352)}		
Listeria monocytogenes {(ATCC 19117)}	Pseudomonas aeruginosa {(ATCC 15442)}		
Salmonella enterica {(ATCC 10708)}	Salmonella typhi {(ATCC 6539)}		
Shigella sonnei {(ATCC 25931)}	Staphylococcus aureus {(ATCC 6538)}		
Staphylococcus aureus {Community Acquired Methicillin Resistant} {(CA MRSA)} {(Genotype USA400)}	Staphylococcus aureus {Vancomycin Intermediate Resistant} {(VISA)} {(HIP 5836)}		

GENERAL DISINFECTION (Non-Health Care Sites):		
This product kills the following bacteria in 10 minutes on hard, non- porous surfaces:		
Bordetella bronchiseptica {(ATCC 10580)} Corynebacterium ammoniagenes {(ATCC 6872)}		
Escherichia coli O157:H7 {(ATCC 35150)}	Enterococcus faecalis {Vancomycin Resistant} {(VRE)} {(ATCC 51575)}	
Listeria monocytogenes {(ATCC 19117)}	Salmonella enterica {(ATCC 10708)}	
Salmonella typhi {(ATCC 6539)}	Shigella sonnei {(ATCC 25931)}	
Staphylococcus aureus {(ATCC 6538)}	Staphylococcus aureus {Vancomycin Intermediate Resistant} {(VISA)} {(HIP 5836)}	

VIRUCIDAL PERFORMANCE:			
This product kills the following viruses in 2 minutes on hard, non-porous surfaces:			
Enterovirus Type 68 {(VR-561, Strain Fermon)}	Herpes Simplex Virus Type 1 {(VR-733)}		
Herpes Simplex Virus Type 2 {(VR-734)}	Human Immunodeficiency Virus Type 1 {(HIV-1)} {(AIDS Virus)} {(HTLV-IIIB)}		
Influenza A Virus {(VR-544)}	{(Hong Kong)} Respiratory Syncytial Virus {(RSV)} {(VR-26)}		
Rhinovirus Type 37 {(VR-1147)}	Rotavirus {(Strain WA)}		
Vaccinia Virus {(VR-119)}			





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, cost effective and excellent levels of user acceptance 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 & 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 didecyldimethyl 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 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. 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:

All our EN and AOAC testing is carried out under Dirty Conditions, Temperature 20 °C, with 1, 5 and 10 - minute contact times.					
Microbial Class Efficacy Test Contact Time (Mins) Log Reduction					
BACTERIA (gram +/ Gram-)	EN1276	1	>6		
	AOAC - Bactericidal	10	>6		
VIRUSES (Enveloped /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		

*As our products are persistent we do not need to comply with contact / dwell times.

AVAILABLE IN: 4 x 5L - 60ml in each 5L - Just add water to the green coloured concentrate

DISINFECTION PERFORMANCE:			
This product kills the following bacteria in 10 minutes on hard, non-porous surfaces:			
Acinetobacter baumannii {(ATCC 19003)}	Acinetobacter Iwoffi ({ATCC 9957)}		
Acinetobacter Iwoffi {(ATCC 15309)}	Bordetella bronchiseptica {(ATCC 10580)}		
Chlamydia psittaci {(VR-125)}	Citrobacter freundii {(ATCC 8090)}		
Enterobacter agglomerans {(ATCC 27155)}	Enterobacter cloacae {(ATCC 13047)}		
Enterobacter aerogenes {(ATCC 13048)	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 {(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)}			

VIRUCIDAL 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-54	Respiratory Syncytial Virus {(VR-26)}	
Vaccinia Virus {(VR-119)}		

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)}			

ANIMAL PREMISE VIRUCIDAL** 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/lowa/15/30)} {(VR-333)}	Transmissible Gastroenteritis Virus {(TGE)} {(Clinical Isolate)}	
This product kills the following viruses in 10 minutes at 660ppm (current dilution rates) on hard, non-porous surfaces:		
Canine Parvovirus** {(CPV)} {(VR-2017)}	Mice** {(Parvovirus)} {(VR-1346)} (Not for use in CA.)	
Rabies** Porcine Parvovirus** {(VR-742)}		

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 mould in 10 minutes on hard, non-porous surfaces:

Aspergillus niger {(ATCC 16404)}

Author: Technical Business Development Manager, TECcare and Eco Statics Global Ltd

Re: TECcare efficacy against MERS-CoV Middle East Respiratory Syndrome Coronavirus Introduction

UPDATE... Technical Bulletin

E-Shield systems.

The MERS-CoV virus first case was confirmed in Saudi Arabia in spring 2012, as of June 8th 2015 and there were more than 1000 confirmed cases in 25 countries, with over 400 deaths worldwide according to information published by the World Health Organisation.

There were an additional 95 cases and 7 deaths reported today in South Korea where the largest outbreak outside of Saudi Arabia was currently occurring.

Limited information was available about the transmission dynamics of the microbe. Although it was not considered highly transmissive the suspected high rate of morbidity and mortality and the difficulties categorising patients required close attention to infection control practice, AIIR isolation, hand hygiene and surface/air disinfection to interrupt the transmission pathways of the microbe.

Disinfectant Efficacy

 $\label{lem:mercial} \textbf{MERS-CoV} \ \ \textbf{virus} \ \ \textbf{was} \ \ \textbf{not} \ \ \textbf{available} \ \ \textbf{for} \ \ \textbf{commercial} \ \ \textbf{testing} \ \ \textbf{in} \ \ \textbf{laboratories}.$

TECcare CONTROL and TECcare ULTRA <u>HAVE BEEN TESTED AGAINST</u> a broad spectrum of viral pathogens and demonstrate high antimicrobial activity according to current accredited AOAC protocol under GLP (Good Laboratory Practice) laboratory accreditation.

CONTROL and ULTRA have been tested against but not limited to;

- Avian influenza (H1N1, H3N2, and H5N1)
 - SARS associated Coronavirus
 - Human Coronavirus
 - Respiratory syncytial virus





Key Features of the DAILY WIPES

DAILY is a total rapid biodegradable cleaning wipe with NO Bioaccumulation to the environment or on surfaces, which means ZERO environmental impact! DAILY can be used on Organic and Non-Organic substrates. It has zero VOC's, cleans at neutral pH and breaks down oil spills Fat Oil and Grease (FOG), lipids, dried bodily fluids and organic matter.

DAILY is smear and streak free, Non – Hazardous, completely Non – Toxic, free from phosphates, parabens, preservatives and is a completely GREEN product.

DAILY originates from renewable sustainable organic sources (supporting data over leaf).

Global SDS show zero risk to skin, inhalation, eye irritant (Substantiated and produced by Global chemical lawyers).

What is a DAILY WIPES?

DAILY Is a daily cleaning wipe that is <u>biodegradable and maceratable</u> which eats through organic matter and is used as part of your daily cleaning protocol. Daily has been designed and developed to breakdown oil spills, Fat, Oil and Grease (FOG), lipids, dried bodily fluids and organic matter by using the same adjuvent that is in all of our products.

In the same way as Ultra & Control kills bacteria - DAILY breaks down organic matter for easier cleaning & physical removal of soiled surfaces. DAILY does not have any kill claims and is used as a cleaning agent.

It must / can be used to replace chlorine and bleach wipes as a safer method of cleaning for both the person using it and the environment. We recommend DAILY to be used as a part of our protocol for wiping away stains and marks - ULTRA (monthly, CONTROL (weekly) and DAILY (daily)

Daily physically cleans substrates ensuring the perfect base for CONTROL and ULTRA using NO other chemicals in the newly created environment.

What has DAILY been designed for?

DAILY Has been designed as a cleaning agent to replace toxic and harmful chemicals that are often used for everyday cleaning and are detrimental to personnel and the environment.

Daily is safe and easy to use and no specialised training is required. This product is the cost effective environmentally friendly alternative to harsh chemicals for every day cleaning.

High biological degradability. FREE from sulphate and phosphate

Environmentally friendly. Naturally, derived raw plant based materials

FREE from fragrances and solvents.

Advanced natural plant based formula

FREE from polymers or thickeners.

Maceratable / Toilet flushable

Please note...

DAILY is a cleaner and detergent wipe and is not supplied or sold with any kill claims (It is not registered as biocide as it is just a cleaning detergent wipe). However, we carried out an ISO 11930:19 report for internal compliance ONLY! It was complied to gain a greater understanding of the benefits of this product to show us the efficacy.

Test organism list

Pseudomonas aeruginosa ATCC 9027. Log kill 5.93 - Pass.

Escherichia coli ATCC 8739 Log kill 5.89 - Pass.

Staphylococcus aureus ATCC 6538 Log kill 5.75 - Pass.

Candida albicans ATCC 10231 Log kill 4.71 - Pass.

Aspergillus brasiliensis ATCC 16404 Log kill 4.49 - Pass.

AVAILABLE IN:

100 wipes in a recycled packet.

Other sizes available





Nature dealing with man-made consequences naturally...

- · Non-toxic, non-irritant, non-hazardous
 - Readily and rapidly biodegradable
- Safety Data Sheet hazard rating (HMSI) is 0-0-0
 - · Made from renewable raw materials
- Safe for personnel, plant equipment and the environment
- Excellent degreaser & solvent and chemical replacement

- · Is a "green product"
- Non-VOC according to EU directive 1999/13/EC
 - Free from enzymes, acids, phosphates
 - Free from alcohol & preservatives
 - · Effective cleaning at neutral pH
- · Compatible with fresh water, potable water and salt water

FAQ's

How does it work?

Daily reduces the surface tension of the residue contamination molecule enabling the rupturing of complex molecular chains into smaller particles. This increases the contact area allowing quicker biodegradation.

Chemical composition?

The wipe is a mixture of natural raw materials from vegetable extracts & non-ionic green surfactants produced using an innovative manufacturing process

Can it be used on food?

As Daily is environmentally friendly and human safe it is the perfect alternative to carcinogenic wipes. It can be used on food - vegetables, fruit, raw meat and fish eliminating bio burden which helps to increase the shelf life!

What other chemicals can it be used with?

Daily is compatible with virtually all commercial non-ionic, anionic, cationic and amphoteric surfactants, as well as a wide array of additives.

Is the product freeze / thaw stable?

The freezing point of the product is 3 °C.

Are there any surfaces it is not compatible with?

Daily is compatible with most surfaces including metals, stonework and plastics.

Does it leave a residue?

No, it does not leave a visible residue.

Does it remove the dye from fabrics?

No - colour fastness is good although, it is recommended to always test on an inconspicuous area first.

What is the mix ration?

This product can be used in concentrate format but our recommended mix ratio is from 1:20 - 1:33 dependant on environment.

Ingredients

Dimethyl glutarate	Aloe Vera	Sage
Dimethyl succinate	Witch-hazel	Linden
Dimethyl adipate	Peppermint	Thyme
Polysorbate 20	Rosemary	Valerian





DAILY is a total rapid biodegradable cleaner with NO Bioaccumulation to the environment or on surfaces, which means ZERO environmental impact! DAILY can be used on Organic and Non-Organic substrates. It has zero VOC's, cleans at neutral pH and breaks down oil spills Fat Oil and Grease (FOG), lipids, dried bodily fluids and organic matter.

DAILY is smear and streak free, Non – Hazardous, completely Non – Toxic, and free from phosphates, parabens and preservatives.

DAILY originates from renewable sustainable organic sources (supporting data over leaf).

Global SDS show zero risk to skin, inhalation, eye irritant (Substantiated and produced by Global chemical lawyers).

DAILY requires NO PPE.

What is DAILY?

DAILY Is a daily cleaning fluid that eats through organic matter and is used as part of your daily cleaning protocol. Daily has been designed and developed to breakdown oil spills, Fat, Oil and Grease (FOG), lipids, dried bodily fluids and organic matter by using the same adjuvent that is in all of our products.

In the same way as Ultra & Control kills bacteria - DAILY breaks down organic matter for easier cleaning & physical removal of soiled surfaces.

DAILY does not have any kill claims and is used as a cleaning agent. It must / can be used to replace chlorine and bleach as a safer method of cleaning for both the person using it and the environment. We recommend DAILY to be used as a part of our 3 – step protocol - ULTRA (monthly, CONTROL (weekly) and DAILY (daily)

Daily physically cleans substrates ensuring the perfect base for CONTROL and ULTRA using NO other chemicals in the newly created environment whilst applying it through our electrostatic sprayers.

What has DAILY been designed for?

DAILY Has been designed as a cleaning agent to replace toxic and harmful chemicals that are often used for everyday cleaning and are detrimental to personnel and the environment.

Daily is safe and easy to use and no specialised training is required. This product is the cost effective environmentally friendly alternative to harsh chemicals for every day cleaning.

- NO Bioaccumulation
- Non-Toxic and Non-Hazardous
- Free from Phosphates, Parabens and Preservatives
- Zero VOC's and cleans at a neutral pH

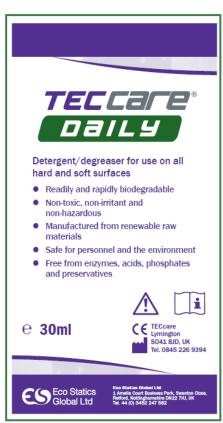
Please note...

DAILY is a cleaner and detergent and is not supplied or sold with any kill claims (It is not registered as a biocide as it is just a cleaning detergent). However, we carried out an ISO 11930:19 report for internal compliance ONLY!

It was complied to gain a greater understanding of the benefits of this product to show us the efficacy.

Test organism list

Pseudomonas aeruginosa ATCC 9027.	Log kill 5.93 - Pass.
Escherichia coli ATCC 8739	Log kill 5.89 - Pass.
Staphylococcus aureus ATCC 6538	Log kill 5.75 - Pass.
Candida albicans ATCC 10231	Log kill 4.71 - Pass.
Aspergillus brasiliensis ATCC 16404	Log kill 4.49 - Pass.



AVAILABLE IN:

36 x 1 litre pouches or 6 x 8 litre secondary recyclable concentrate ampules (bottles)

Also in concentrate IBC's and 20 / 50 litres pots.

Tip directly into the water





<u>Key Features</u> - Nature dealing with man-made consequences naturally

- Non-toxic, non-irritant, non-hazardous
- Readily and rapidly biodegradable
- ♦ SD Sheet hazard rating (HMSI) is 0-0-0
- Made from renewable raw materials
- Safe for personnel, plant equipment and the environment
- Excellent degreaser & solvent and chemical replacement

- ♦ It is a "green product"
- Non-VOC acc to EU directive 1999/13/EC
- Free from enzymes, acids, and phosphates
- Free from alcohol & preservatives
- Completely soluble in water
- Effective cleaning at neutral pH
- Compatible with fresh water, potable water and salt water

FAQ's

How does it work?

Daily reduces the surface tension of the residue contamination molecule enabling the rupturing of complex molecular chains into smaller particles. This increases the contact area allowing quicker biodegradation.

Chemical composition?

A mixture of natural raw materials from vegetable extracts & non-ionic green surfactants produced using an innovative manufacturing process

Can it be used on food?

As Daily is environmentally friendly and human safe it is the perfect alternative to carcinogenic chemicals such as Formaldehyde and Formalin. It can be sprayed directly onto vegetables, fruit, raw meat and fish eliminating bio burden which helps to increase the shelf life!

What other chemicals can it be used with?

Daily is compatible with virtually all commercial non-ionic, anionic, cationic and amphoteric surfactants, as well as a wide array of additives.

Is the product freeze / thaw stable?

The freezing point of the product is 3 °C. If it does freeze the product can be heated with stirring without loss of properties.

Are there any surfaces it is not compatible with?

Daily is compatible with most surfaces including metals, stonework and plastics.

Does it leave a residue?

No, it does not leave a visible residue.

Does it remove the dye from fabrics?

No – colour fastness is good although, it is recommended to always test on an inconspicuous area first.

Can it be thickened?

Yes and can be mixed in and used as a foam.

What is the mix ration?

This product can be used in concentrate format but our recommended mix ratio is from 1:20 - 1:33 dependant on environment.

Ingredients

Dimethyl glutarate Aloe Vera Sage
Dimethyl succinate Witch-hazel Linden
Dimethyl adipate Peppermint Thyme
Polysorbate 20 Rosemary Valerian





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 between 2 - 4 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 and veterinary.

What has it been designed for?

PROTECT has been developed as a skin sanitisers 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?

The efficacy of this product has been confirmed to reduce S. aureus 99.9999%. Protect foam hand sanitiser is in compliance with the FDA Final Tentative Monograph for OTC Hand Sanitiser preparations (leave-on sanitisers not requiring a rinse)

Protect produces a fast drying, non-sticky foam that contains unique non-drying, conditioning and moisturising ingredients, leaves the skin with a soft, refreshing and silky feel, and does NOT contain any polymers, thickeners, silicones or ALCOHOL.

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

All our EN and AOAC testing is carried out under Dirty Conditions, Temperature 20°C,			
	with 1, 5 and 10 - m	inute contact times.	
Microbial Class	Efficacy Test	Contact Time (Secs)	Log Reduction
BACTERIA (gram +/ Gram-)	FDA Monograph	15	>5
BACTERIA (E.coli)	EN1500	15	>3
VIRUSES (Enveloped / Non enveloped)	EN 14476	60	>3
FUNGI	AOAC – Fungicidal	60	>3

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 107	< 1 X 10 ²	> 99.999	> 5.00 Log10	
Candida albicans ATCC 10231	1.60 X 105	6.0 X 10 ³	96.3	1.42 Log10	
Clostridium difficile / ATCC 9689	3.40 X 106	< 2	> 99.9999	> 6.20 og10	
Enterococcus faecalis Vancomycin Resistant (VRE) ATCC 51575	1.12 X 106	3.2 X 10 ¹	99.99	4.54 Log10	
Escherichia coli ATCC 11229	3.80 X 10 ⁶	4	99.999	6.00 Log10	
Escherichia coli O157:H7 ATCC 35150	1.26 X 10 ⁶	< 2	> 99.999	> 5.80 Log10	
Klebsiella pneumoniae ATCC 4352	1.10 X 10 ⁶	2	99.999	5.70 Log10	
Listeria monocytogenes ATCC 19117	4.7 X 10 ⁶	1.9 X 10³	99.9	3.39 Log10	
Pseudomonas aeruginosa ATCC 15442	3.5 X 10 ⁶	< 2	99.9999	> 6.20 Log10	
Salmonella choleraesuis serotype enteritidis ATCC 4931	6.8 X 10⁵	2	> 99.999	5.50 Log10	
Salmonella choleraesuis serotype paratyphi ATCC 8759	5.6 X 10⁵	< 2	> 99.999	> 5.50 Log10	
Salmonella choleraesuis serotype pullorum ATCC 19945	8.9 X 10⁵	< 2	> 99.999	> 5.70 Log10	
Salmonella choleraesuis serotype typhimurium ATCC 23564	7.7 X 10⁵	6	> 99.999	> 5.10 Log10	
Salmonella typhi ATCC 6539	1.27 X 10 ⁶	2	99.999	5.80 Log10	
Shigella dysenteriae ATCC 13313	1.3 X 10 ⁶	< 2	> 99.999	> 5.80 Log10	
Shigella flexneri ATCC 12022	1.39 X 10 ⁶	2.8 X 10 ¹	99.99	4.69 Log10	
Shigella sonnei ATCC 25931	2.43 X 10 ⁷	2.0 X 10¹	99.9999	6.09 Log10	
Staphylococcus aureus ATCC 6538	6.7 X 10 ⁶	< 2	> 99.9999	> 6.53 Log10	
Staphylococcus aureus Methicillin Resistant (MRSA) ATCC 33592	1.23 X 10 ⁷	3.8 X 10³	> 99.9	3.51 Log10	
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 Log10	
Staphylococcus epidermidis ATCC 12228	7.2 X 10 ⁵	< 2	99.999	5.56 Log10	
Streptococcus pneumonia ATCC 6305	6.4 X 10 ⁵	< 2	> 99.999	> 5.51 Log10	
Streptococcus pyogenes ATCC 19615	1.77 X 10 ⁶	< 2	> 99.999	> 5.90 Log10	
Vibrio cholera ATCC 11623	4.7 X 10 ⁵	< 2	> 99.999	> 5.40 Log10	
Xanthomonas axonopodis (Citrus Canker) ATCC 49118	1.28 X 10 ⁶	3.6 X 10 ¹	> 99.99	4.55 Log10	
Yersinia enterocolitica ATCC 23715	2.23 X 10 ⁶	3.8 X 10 ¹	99.99	4.77 Log10	





WASH is a water based, alcohol free foam that simultaneously cleans and moisturises the skin.

WASH exhibits the following key qualities when in use:

Non-corrosive, Non-irritant, Non toxic, Non flammable, Safe in use, Cost effective and easy to use with excellent levels of user acceptance and prolonged effect for up to 2 hours after application.

What is WASH?

WASH is a skin cleansing foam which is 100% biodegradable and offers a safe, effective and user friendly skin cleaning. It can be utilised across a wide range of industries from healthcare to educational establishments, to gym's, food processing and into veterinary science. Basically where there is a hand wash. WASH can and should be used as it zero chemical in it!

What has it been designed for?

WASH has been developed as a skin cleanser with benefits used for situations where skin and hand hygiene are of paramount importance. WASH 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 WASH effect microbes?

WASH is a plant based skin cleanser with benefits and has NO IRRITANTS!

It has multiple affects and points of action within the microbes and cleaning. 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. WASH causes rapid and significant changes at multiple sites within the microbe when cleaning.

How effective is WASH?

Very effective as it cleans at an epidermis level for total protection. WASH is 100 Biodegradable and has benefits (not sold with any) but will protect for up to 2 hours and when combined with PROTECT you will achieve total protect for 4 hours.

Most hand soaps are irritants and will not protect or really clean your hands.

On the SDS it will state Section 8.2 - Wash off with a hand soap!

It will also display the '!' to show you that you are using an irritant!

Outstanding micellar self-thickening Rich

Environmentally friendly

fine-pored foam

Free from fragrances and solvents Free

Mildness to skin and eyes

from polymers or thickeners

Good cleansing ability

Sulphate free

Applying for certified cosmetic formulation

Naturally, derived Raw materials

Eco cert registration pending

Advanced natural formula

High biological degradability

Available in 2 x 5 Litres Ready For Use

EN Test types



EN 1276 — Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas.

EN 1500 — is utilised in Europe for in vivo testing of hygienic hand rubs that are designed to reduce the level of transient flora on the hands. EN 1500 requires 18–22 test volunteers and the usage of 3 ml of the hand rub agent for 30 sec in a defined process to examine the efficacy of a hand disinfectant.

EN 1650 — Chemical disinfectants and antiseptics: Evaluation of fungicidal and yeasticidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas.

EN 13624 — Chemical disinfectants and antiseptics - Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity in the medical area.

EN 14563 — Chemical disinfectants and antiseptics. Quantitative carrier test for the evaluation of mycobactericidal or tuberculocidal activity of disinfectants used for instruments in the medical area.

EN 13727 — Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants for instruments used in the medical area. BS EN 13624: Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity in the medical area.

EN 13704 — is a phase 2 step 1 suspension test for disinfectants intended for use in the food, industrial, domestic and institutional areas. The test evaluates the efficacy of the product against bacterial and fungal spores.

EN 14348 — is a phase 2 step 1 suspension test performed on disinfectants intended for use in the medical area to test the efficacy of the product against mycobacteria. Mycobacteria are more resistant to chemical agents compared to vegetative bacteria and enveloped viruses due to the waxy layer protecting the microbe.

EN 14476 — describes the standard for determining virucidal activity, which involves two non-enveloped viruses and a quantitative suspension assay. This quantitative suspension test is performed in a test tube... Such a test should be based on model viruses that can be dried on carriers.

EN 16615 — is also known as 4- Field Test. It is a quantitative test method for the evaluation of bactericidal and yeasticidal activity of disinfectant wipes intended for use in the medical area. The wipe is tested on a non-porous surface with mechanical action.

* <u>ISO 11930</u> — Preservative Effectiveness Test. The ISO 11930 - Preservative Challenge Test is a procedure for evaluating the antimicrobial protection of a product. It is quickly becoming the "go to" test method for evaluating the preservative effectiveness of cosmetics and personal care products.

All EN and AOAC testing is carried out at a UKAS accredited Laboratory. All our testing results are measured in... Dirty Conditions, Temperature at 20°C, with 1, 5 and 10-minute contact times.

Some standard test organisms	Daily*	Control	Ultra	Protect	Wipes*	Wash
Pseudomonas aeruginosa	~	~	~	~	~	
Escherichia coli	~	~	V	~	~	
Staphylococcus aureus (MRSA)	~	~	~	~	~	
Candida albicans	~	~	~	~	~	
Aspergillus brasiliensis	~	~	~	~	~	
Norovirus – Feline Calicivirus (Surrogate)		~	~	~		
Clostridium Difficile (Spores)		\	\	~		
Mycobacterium avium		\	~			
Campylobacter		~	~	~		
Salmonella		~	~	~		
Listeria monocytogenes		~	~	~		
Legionella Pneumophillia		~	/			
Foot and Mouth			~			

^{*} ISO 11930 testing undertaken on Daily for internal testing purposes only.

Protect Clostridium Difficile is for Vegetative as on the hands.

Glossary of Microbiological and Chemical Terms



Agar	A derivative of marine seaweed used as a solidifying agent in media.
Acid	A substance with pH less than 7.
Aerobic	Grows in oxygen atmosphere.
Alkali	Substance with pH greater than 7.
Algicide	A chemical agent which, under defined conditions, can kill algae including their spores.
Amphoteric	A class of surfactant, having both anionic and cationic properties.
Anaerobic	Grows in oxygen free atmosphere.
Anionic	A surfactant in which the surface-active agent has a negative charge.
Antimicrobial	A substance capable of killing micro-organisms. Destruction of inhibition of micro-organisms on living tissues having the effect of preventing harmful results of infection.
Antisepsis Antiseptic	A chemical agent used in antisepsis.
Bacillus	A rod-shaped bacterium.
Bactericide	A chemical agent which, under defined conditions, can kill bacteria but not necessarily bacterial spores.
Bacteriostatic	A state of bacterial population in which, multiplication is inhibited.
Bacteriostat	A chemical agent, which under defined conditions induces Bacteriostatic.
Disside	A generalised term for a chemical agent capable if killing or inactivating micro-organisms. It embraces the more specific terms
Biocide	algicide, bactericide, fungicide, sporicide and virucide (see also germicide) Note: Pesticides are not Biocides.
Black fluids	Coal-tar fractions solubilised with soaps.
Cationic	A surfactant in which the surface-active agent has a positive charge.
Chemical Sterilising Ag	
Chlorhexidine	A bisphenol compound used as antiseptic and disinfectant.
Chlorine	Member of the Halogen group of elements. Incorrectly used to define the active species in solutions of sodium hypochlorite.
Coccus	A spherical bacterium.
Disease Disinfectant	Any change from a general state of good health. A chemical agent, which under defined conditions is capable of disinfection.
	Destruction of micro-organisms, but not usually bacterial spores: Does not necessarily kill all micro-organisms, but reduces them to a
Disinfection	level acceptable for a purpose, for example, a level which is not harmful to health quality of perishable goods.
DNA	Deoxyribonucleic acid
Formaldehyde	A colourless gas with characteristic pungent odour. Used as a disinfectant in fumigation.
Fumigation	Exposure of enclosed spaces to action of gaseous or vapour-phase disinfectants or sterilant.
Fungicide	A chemical agent, which under defined conditions can kill fungi including their spores.
Fungus	A group of diverse unicellular and multicellular microorganisms (pl. fungi)
Fungistasis	A state of fungal population the development of which is prohibited.
Fungistat	A chemical agent, which under defined conditions induces Fungi stasis.
Genus	See Species.
Germ	A vague term, which should be avoided. A micro-organism, which can be harmful.
Germicide	A vague term, which should be avoided. An agent under defined conditions, which can kill germs.
Glutaraldehyde	A broad-spectrum biocide used as an active ingredient in formulated disinfectants.
Gram Stain	Stain technique used to classify bacteria into two groups: Gram negative or Gram positive. A group of chemicals consisting of e.g. Fluorine, Chlorine, Iodine and Bromine.
Halogens Hydrogen Peroxide	A group of chemicals consisting of e.g. Fluorine, Chlorine, Iodine and Bromine. A bleaching / oxidising agent used as a disinfectant.
, ,	Usually sodium hypochlorite, solutions of hypochlorite are oxidising disinfectants producing the biocidally active hypochlorite anion
Hypochlorite	and hypochlorous acid.
lodine	A Halogen like Chlorine but more stable and less reactive.
lodophor	lodine in solution of surfactant with stabiliser.
Media	A nutrient rich solid or liquid (agar or broth) used to grow micro-organisms.
Microbe	An alternative expression for micro-organism.
Micro-organism	A microscopic entity capable of replication - includes bacteria, viruses, microscopic forms of algae, fungi and protozoa.
Motile	Describes Organisms, which can move independently.
Mycelium	A visible mass of tangled filaments of fungal growth.
Nucleic Acids	An organic compound composed of nucleotides DNA and RNA.
Oocyst	An oval body in the reproduction cycle of certain protozoa.
Pathogen Peracetic acid	An organism that causes disease in animals, plants or micro-organisms. Acid produced by combination of acetic acid and hydrogen peroxide.
Phenol	Chemical derived from coal tar. Used as a disinfectant.
Preservation	Maintaining numbers of micro-organisms at low levels i.e. low enough to make food safe to eat or to prevent spoilage.
Protozoa	Unicellular micro-organisms. Classified in the Animal Kingdom.
QAC's – Quat's	A cationic surfactant with strong bactericidal but weak detergent properties.
RNA	Ribonucleic acid involved in protein synthesis.
Sanitization	A term used mainly in the food and catering industry. Process of cleaning / disinfecting utensils, equipment and surfaces.
Sanitizer	A chemical agent used for sanitization.
Somatic	Refers to the "body" or main part of a cell. Does not include reproductive structures such as spores.
Species	Fundamental rank of the classification system. (Two or more species grouped together are classed as a genus).
Spirochete	A twisted bacterial rod with a flexible cell wall containing axial filaments for motility.
Spore	A highly resistant structure formed from somatic cells in several genera of bacteria. E.g. Bacillus, C-Diff
Sporicide	A chemical agent which, under defined conditions. Can kill bacterial spores.
Sterile	Free from all living micro-organisms.
Sterilization	A process, which renders an item sterile.
Sterilizing Agent	An agent or combination of agents, which under defined conditions leads to sterilization.
Surfactant Toxin	A poisonous substance produced by a species of micro organism
Toxin Vibrio	A poisonous substance produced by a species of micro-organism. A form of bacteria occurring as a curved rod.
	A form of bacteria occurring as a curved rod. A chemical agent which, under defined conditions is capable of killing or inactivating viruses.
Virucide	
Virucide Virus White fluids	A chemical agent which, under defined conditions is capable of kinning of mactivating viruses. A non-cellular entity consisting of protein and nucleic acid. Can only replicate after entry into specific types of living cell. Prepared by emulsifying tar fractions.