

TECHNICAL BULLETIN: Coronavirus (COVID-19) and TECcare CONTROL

To Whom it may concern.

Please be advised that whilst TECcare CONTROL is a chlorine-free, alcohol-free disinfectant technology it is proven to be highly effective against both enveloped and non-enveloped viruses, as well as bacteria, bacterial spores and fungi.

In formal testing at accredited laboratories to the internationally recognised EN14476 Virucidal Efficacy test protocol, TECcare CONTROL is proven to kill 99.99% of enveloped viruses (such as COVID-19) and non-enveloped viruses within minutes of contact.

TECcare CONTROL has already been proven to be effective against several different types of coronavirus including;

- SARS-associated coronavirus
- Human coronavirus (VR-740)
- Canine coronavirus (VR-809)

Since Coronavirus (COVID-19) is a new virus there is NO commercially available virucidal efficacy test that can be used for any disinfectant against this specific virus at this point in time (March 2020).

As a specific COVID-19 efficacy test does not currently exist, no disinfectant on the market can claim to be effective against the specific COVID-19 virus causing the current pandemic.

However, since Coronavirus (COVID-19) is classified as an 'enveloped virus', its physical structure is similar to other 'enveloped viruses' which in this case means that the COVID-19 capsid containing the nucleic acid essential to viral replication is surrounded by a lipid membrane, similar to other enveloped viruses such as influenza and the three coronaviruses listed above.

The lipid based membrane 'envelope' of all enveloped viruses (including COVID-19) contains lipids and proteins and it is these proteins which bind to receptors on host cells and enable the virus to 'infect' the host cells (i.e. result in a human infection).

A key benefit of TECcare CONTROL is that in addition to the physical disruption of the lipid envelope surrounding the COVID-19 virus, TECcare CONTROL will also denature the binding proteins within the envelope and the capsid itself. See Figure 1 below for further information.

Essentially by: (1) disrupting the lipid envelope, (2) changing the shape and structure of the virus binding proteins, and (3) denaturing the proteins of the virus capsid, TECcare CONTROL effectively dismantles the physical structure of enveloped viruses and renders them ineffective and therefore unable to cause infection.

Therefore by using TECcare CONTROL to clean and disinfect environmental surfaces, these multiple points of attack offered by TECcare CONTROL gives a comprehensive 'belt and braces' approach to reducing the risk posed by COVID-19 on any environmental surface.

In addition, any other problematic bacteria, bacterial spores, viruses or fungi on the surfaces cleaned with TECcare CONTROL will also be controlled, thereby resulting in a cleaner, safer environment for all.



TECcare®

Antimicrobial Technologies

What is TECcare® CONTROL?

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 from healthcare to educational establishments to food processing to veterinary science.

The TECcare® CONTROL technology platform is based around the quaternary ammonium compounds didecyldimethyl ammonium chloride (DDAC) and benzalkonium chloride (BAC) with an adjuvant effect to supercharge its antimicrobial efficacy.

A joint paper published by the UK Health Protection Agency Microbiological Services Division, Porton Down, Salisbury and the UK Health Protection Agency Centre for Infections, London, listed a disinfectant using didecyldimethyl ammonium as one of the most potent, effective high level disinfectants available.

What has TECcare® CONTROL been designed for?

TECcare® CONTROL has been developed as a combined high level disinfectant / cleaner for all hard and soft surfaces, environments, equipment and air. It 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 etc.

As a combined disinfectant cleaner TECcare® CONTROL is intended for single stage cleaning and disinfection protocols. If local policy dictates a two-stage clean, then disinfect, process then TECcare® CONTROL is suitable for either stage of this process.

The prolonged effect of TECcare CONTROL.

TECcare CONTROL delivers a prolonged antimicrobial effect on all surfaces after application. What this means for the users is that it continues to work and kills or attenuates microbes for hours or even days after it has been used on a surface.

Therefore any virus particles falling onto, or being deposited onto a surface that has been cleaned and disinfected with TECcare CONTROL will come under attack from the disinfectant and therefore be less likely to affect the next person to touch them.

How does TECcare® CONTROL affect microbes?

TECcare® CONTROL has multiple simultaneous affects and points of action on the microbe which include:-

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

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. The magnitude of this affect is so great that it is typically lethal to the microbe within minutes of contact.



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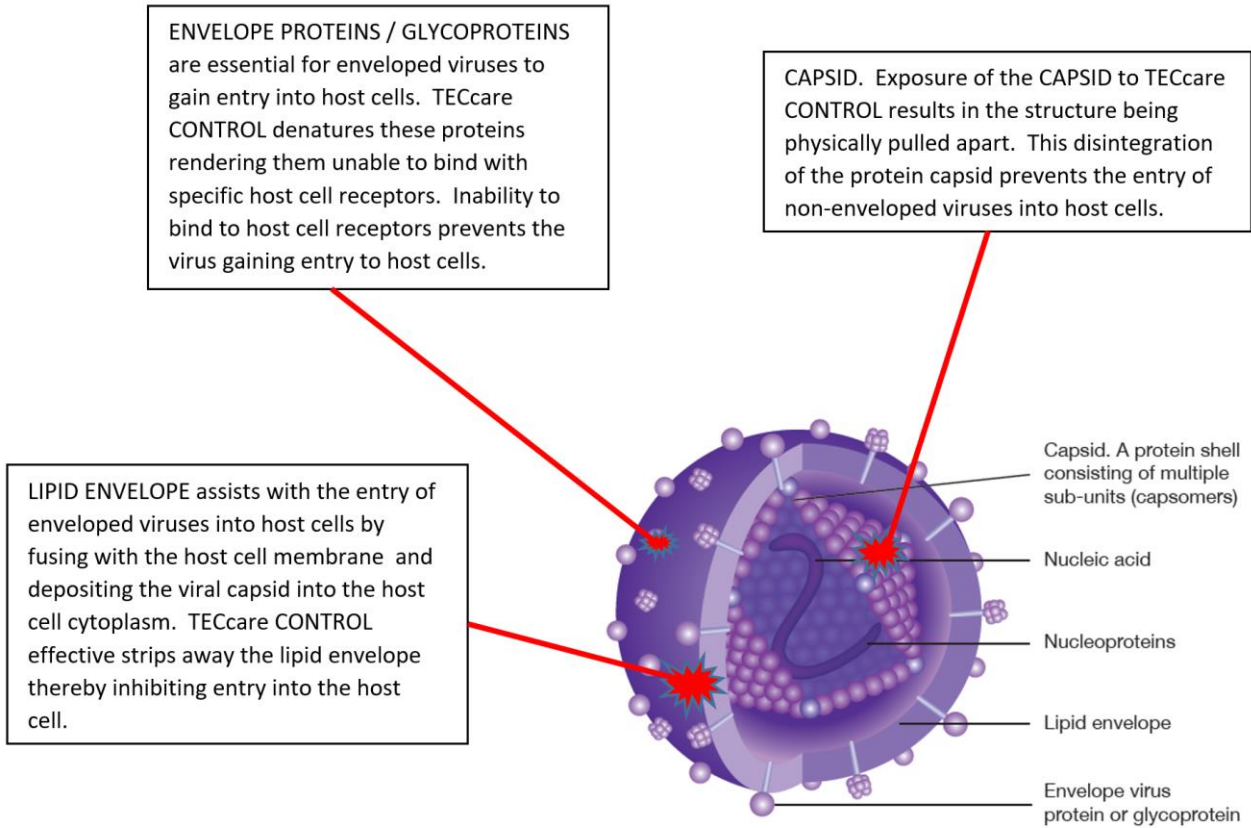
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Figure 1. The enveloped virus structures affected by TECcare CONTROL



Richard Forder

Head of Clinical Affairs



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SAFETY DATA SHEET

TECCARE Control Wipes
High Level Disinfectant Cleaner

Compilation date: 16.02.2016

Revision date: 16.02.2016

Revision No: 1.0

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product name: TECCARE CONTROL Pouch of Maceratable Flushable Wipes
TECCARE CONTROL Pouch of Medical Device Textured Wipes
TECCARE CONTROL Pouch of Standard Hard Surface Wipes
TECCARE CONTROL Canister of Standard Hard Surface Wipes
TECCARE CONTROL Large Wipes

1.2. Relevant identified uses of the substance or mixture and uses advised against

Uses: High Level Disinfectant Cleaner

1.3. Details of the supplier of the safety data sheet

Company name: TECCare, Hannah Way,
Gordleton Industrial
Park, Lymington,
Hampshire SO41 8JD

Tel:

Contact:

Email:

sales@TECCare.com

1.4. Emergency telephone number

Emergency Tel: Tel : 0845 226 9394

Section 2: Hazards Identification

2.1. Classification under CLP:

Most important adverse effects: **2.2.** Not Applicable

Label elements

Hazard Statements: Not Applicable

Single word: Not

Applicable

Hazard Pictograms: Not Applicable

Precautionary phrases:

P264: Wash hands thoroughly after handling
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P302+352: IF ON SKIN: Wash with plenty of water
P312: Call a doctor if you feel unwell

2.3. Other Hazards

PBT: This product is not identified as a PBT substance

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Section 3: Composition/Information on Ingredients

3.2. Mixtures

Hazardous ingredients:

DIDECYLDIMETHYLAMMONIUM

EINECS	CAS	CHIP Classification	CLP Classification	Percent
230-525-2	7173-51-5	Xn: R22; C: R34	Acute Tox. 4: H302; Skin Corr. 1B:	<0.05%

ALKYL DIMETHYL BENZYL AMMONIUM CHLORIDE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
270-325-2	68424-85-1	Xn: R21/22; C: R34; N: R50	Acute Tox. 4: H302; Skin Corr. 1B:	<0.03 %

H314; Aquatic Acute 1: H400

Section 4: First Aid Measures

4.1. Description of first aid measures Skin

contact:	There may be mild irritation at the site of contact, wash immediately with plenty of soap and water. If symptoms persist consult doctor
Eye contact:	There may be irritation and redness, bathe the eye with running water for 15 minutes. If symptoms persist consult doctor
Ingestion:	There may be irritation of the throat, wash out mouth with water
Inhalation:	No symptoms

4.2. Most important symptoms and effects, both acute and delayed

Skin contact:	There may be irritation at the site of contact
Eye contact:	There may be irritation and redness
Ingestion:	There may be irritation of the throat
Inhalation:	No symptoms

4.3. Indication of any immediate medical attention and special treatment needed

Section 5: Fire-Fighting Measures

5.1. Extinguishing media

Extinguishing media:	Unsuitable	Suitable extinguishing agents: Water spray jet, extinguishing powder, CO2, foam
extinguishing agents:	Protective equipment:	None
		Wear self-contained breathing apparatus
		Cool endangered containers with water spray jet

5.2. Special hazards arising from the substance or mixture

Exposure hazards:	No hazardous ingredients
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5.3. Advice for fire-fighters

Wear self-contained breathing apparatus
Cool endangered containers with water spray jet

[cont...]

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Section 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear personal protective equipment, gloves and eye/face protection

6.2. Environmental precautions

Environmental precautions: Do not allow product to enter waters without treatment. Inform authorities in case of contamination of water or sewage system

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Collect in suitable container. Cover with absorbent, mix and collect mechanically dispose of contaminated material as waste

6.4. Reference to other sections

Suitable binder: Multi-purpose absorbent

Section 7: Handling and Storage

7.1. Precautions for safe handling

Handling requirements: No specific instructions

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Protect from heat and direct sunlight, well-ventilated area. Keep container tightly closed

7.3. Specific end

use(s) Suitable Must only be kept in original packaging

Section 8: Exposure Controls/Personal Protection

8.1. Control parameters

No hazardous ingredients

8.1. DNEL/PNEC Values

DNEL / PNEC: No data available

8.2. Exposure controls

Engineering measures: No specific guidance required
Respiratory protection: Respiratory protection not required
Hand protection: Wear appropriate protective gloves
Eye protection: Safety glasses not required. Ensure eye bath is to hand
Skin protection: Wear appropriate personal protective equipment

[cont...]

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Section 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State:	Liquid
Colour:	Colourless
Odour:	Characteristic odour
Oxidising:	Non-oxidising (by EC criteria)
Solubility:	Fully miscible
Viscosity at 20°C:	Non viscous
Flash point:	>70°C
pH at 20°C:	7

9.2. Other information

Other information:	No data available
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Section 10: Stability and Reactivity

10.1. Reactivity

None

10.2. Chemical stability

Chemical stability:	Stable under normal conditions 2
Minimum shelf life:	years from dilution

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Conditions to avoid:	Heat
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10.5. Incompatible materials

Materials to avoid:	Strong oxidising agents. Strong acid
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10.6. Hazardous decomposition products

Haz. decomposition products:	In combustion emits toxic fumes
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Section 11: Toxicological Information

11.1. Information on toxicological effects

Refer to section 4 of SDS for routes of exposure and corresponding systems

Symptoms / routes of exposure:	Skin contact: There may be irritation at the site of contact Eye contact: There may be irritation and redness Ingestion: There may be irritation of the throat Inhalation: No symptoms
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Section 12: Ecological Information

12.1. Toxicity

Eco-toxicity values:

No data available

Components are readily biodegradable

12.2. Persistence and degradability

Persistence and degradability:

The surfactants in this product comply with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the component authorities of the Member States and will be made available to them at their direct request or at the request of the detergent manufacturer

12.3. Bioaccumulative potential

No bioaccumulation potential is expected

12.4. Mobility in soil

Readily absorbed into soil

12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT substance

PBT identification: **12.6. Other adverse**

effects

Does not contain substances influencing AOX of waste water

Does not contain any heavy metal

Section 13: Disposal Considerations

13.1. Waste treatment methods

Product must be disposed of according to local regulations pertaining to the disposal of hazardous waste empty and clean contaminated packaging with water before recycling

NB:

The user's attention is drawn to the possible existence of regional or national regulations regarding disposal

Section 14: Transport Information

14.1. UN number UN number:

Not classified

14.2. UN proper shipping name

Shipping name:

Not classified

14.3. Transport hazard class(es)

Transport class:

Not classified

14.4. Packing group

Packing group:

Not classified

14.5. Environmental hazards

Environmentally hazardous:

No

Marine pollutant:

No

14.6. Special precautions for use

[cont...]

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Section 15: Regulatory Information

15.1. Specific regulations:

Safety, health and environmental regulations/legislation specific for the substance or mixture: National regulations may apply in event of accident

15.2. Chemical Safety Assessment

No significant hazard

Section 16: Other Information

Other information: Phrases

This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010

used in S.2 and 3: Legal

Not applicable

disclaimer:

This information and all further technical advice is based on our present knowledge and is believed to be correct but does not purport to be all inclusive and shall be used only as guide. This company shall not be held liable for any damage resulting from having contact with the above product