



Cambridge Scientific Technologies Ltd



- Cambridge Scientific Technologies Ltd specialises in research, development, manufacture and marketing of products designed to combat pathogens such as bacteria & viruses.
- Product range includes **DXT22, DXT27, DXT50 & DXT55**
- Products comply with European Biocidal Products Directive
- Products are manufactured in UK
- DEFRA approved



There are a number of current infection control issues:

- Hospital acquired Infections are on the increase
- There has been a return of diseases such as TB and Polio
- The threat of pandemics and epidemics such as Avian Influenza (bird flu) and H1N1 Swine flu has increased over the last few years
- Leading virologists throughout the world are warning that it is WHEN, not if, a bird flu pandemic will strike
- Concerns over both safety and efficacy of traditional disinfection methods has lead to the European Biocidal Products Directive



The **DXT** range uses Quat, DDAC (Didecyl Dimethyl Ammonium Chloride) which has a twin alkyl chain structure.

Other competitive products using Quats are ‘older’ versions which are based on benzene ring which have a single alkyl chain structure.

Performance studies on DDAC alone have shown it to have **superior activity** over the benzene ring based Quats,

resulting in.....



- **Lower concentrations** of DDAC to achieve same/ **more effective biocidal activity**
- The **DXT** formulation has achieved comprehensive **biocidal** activity against a range of bacteria, viruses and fungi.
- Lower concentrations of the overall formula are **safe for human contact and reduce the environmental load** (less active biocidal ingredients used compared to many other products) so providing a more ‘responsible’ disinfecting solution.



- **DXT** products provide a **disinfectant** action and the Quat promotes **cell membrane destabilization** of viruses, bacteria and fungi (reducing the rate of emergence of resistant strains, which is a concern with some disinfecting/biocidal agents).
- In other words, the formula presented by **DXT** products maximizes biocidal performance and requires a lower concentration than other competitive products on the market.
- **Longevity of action** – the persistence of the antimicrobial action has been shown to exceed 24 hours - and in some tests, **over 14 days**.



- Fast acting.
- Tolerant of anionic contaminants.
- Effective in hard water areas.
- Maintains efficacy in presence of high organic loads such as blood and proteins.
- Good surfactant and wetting properties.
- Good cleaning properties.
- Free of Aldehydes, halogens & phenols
- Broad spectrum of activity against both gram positive and gram negative bacteria, viruses and fungi.



Disinfectant Type Comparisons

Active ingredient	Effective against:						Toxicology			Corrosion
	Viruses		Bacteria		Myco-bacteria	Fungi	Non-Cytotoxic	Non-Mutagenic	Non-Carcinogenic	No corrosion on surfaces
	Enveloped	Non enveloped	Gram-positive	Gram-negative						
Twin-chain Quat (in DXT55)	√	√	√	√	√	√	√	√	√	√
Peracetic acid	√	√	√	√	√	√	X	√	X	X
Phenols	√	X	√	√	√	√	X	X	X	X
Formaldehyde	√	√	√	√	√	√	X	X	X	X
Glutaraldehyde	√	X	√	√	√	√	X	X	X	X
Alcohol 70%	X	X	√	√	√	√	√	√	√	√
Hydrogen peroxide	√	√	√	√	√	√	X	√	X	X
DCIC (sodium-dichloroisocyanurate)	√	√	√	√	X	√	√	√	√	X
Sodium hypochloride	√	√	√	√	X	√	√	√	√	X
Quats "old generation"	X	X	√	X	X	√	√	√	√	√

The information provided above is based upon current data available in the public domain. Cambridge Scientific Technologies Ltd makes no warranty as to the accuracy of this data, nor does it seek to impart advice based upon the above information. E & OE



• **Effective against a range of pathogens affecting healthcare, veterinary, community and industrial environments**

- Polio
- TB
- **Swine Flu H1N1**
- Influenza Viruses including **Avian Influenza – H5N1**
- Hospital Acquired Infections (MRSA, C. Diff.etc)
- Aspergillus Niger
- Pathogens causing Dysentery (Salmonella)
- ECBO (Enteric Cytopathogenic Bovine Orphan, Picorna group, i.e. FMD veterinary field)



DXT products can be:

- Intensively distributed by ULV fogging machine
- Applied to surfaces by mop/cloth or trigger spray
- Applied via hand sanitizing gel – **non alcohol** (available spring 2010)





DXT27 Broad spectrum disinfectant for general use

DXT55 Targeting influenza viruses including H1N1 & H5N1

DXT22 Broad spectrum disinfectant for equine use

DXT50 Broad spectrum disinfectant for domestic use



Dilution rates for use:	
1%	5%
<p>General Purpose disinfectant For areas requiring low-level disinfection such as domestic or home use, or for food preparation surfaces in kitchens.</p> <p>Professional & Pandemic Flu protection For areas requiring low-level disinfection. Can be used via fogging machine. Shown to be effective against H5N1 Avian Influenza and H1N1 Swine Flu</p> <p>Animal & Poultry For use with fogging machine & general disinfection of poultry sheds</p> <p>Equine For use with fogging machine</p>	<p>Professional For use in heavily soiled areas, commercial and healthcare premises, presence of blood and/or faeces, hospital equipment etc.</p> <p>Animal & Poultry For use in heavily soiled areas, and in the presence of blood and/or faeces</p> <p>Equine For use in heavily soiled areas, and in the presence of blood and/or faeces</p>



DXT product formulations have also been tested by:





The **DXT** formulation has been notified/registered with:

- Health & Safety Executive, UK
- DEFRA, UK
- Ministry of Agriculture, France
- Ministry of Agriculture, Spain
- Federal Health Office, Switzerland
- Food and Drugs Board, Accra, Ghana
- Department of Health, Philippines
- Environment Agency, UAE



Tested according to European Norms (EN)	
<p>EN 1040 Bactericidal result, Test strains: P. aeruginosa and S. aureus Result: 0.025% 5 min</p>	<p>EN 13697 (Surface test) Fungicidal result in presence of organic load (Albumin) Test strains: A. niger and C. albicans Result: 4.0 % 3.0 g/l Albumin 15 min.</p>
<p>EN 1276 Test strains: P. aeruginosa, S. aureus, E. coli and E. hirae Bactericidal results in presence of organic load (Albumin) Results: 20°C 1.0 % 3.0 g/l Albumin 5 min. 10°C 2.0 % 3.0 g/l Albumin 5 min.</p>	<p>EN 1656 (Veterinary) Test strains: P. aeruginosa, S. aureus, P. vulgaris and E. hirae Bactericidal results in presence of organic load (Albumin / Yeast) Results: 10°C 2.0 % clean conditions 30 min. 10°C 3.0 % dirty conditions 30 min.</p>
<p>EN 1650 Test strains: A. niger and C. albicans Fungicidal results in presence of organic load (Albumin) Result: 2.0 % 3.0 g/l Albumin 15 min.</p>	<p>EN 1657 (Veterinary) Test strains: A. niger and C. albicans Fungicidal results in presence of organic load (Albumin) Result: 10°C 2.0 % 3.0 g/l Albumin 30 min.</p>
<p>EN 13697 (Surface test) Bactericidal result in presence of organic load (Albumin) Test strains: P. aeruginosa, S. aureus, E. coli and E. hirae Result: 2.5 % 3.0 g/l Albumin 5 min.</p>	<p>EN 13704 (Clostridium Difficile) Sporicidal activity according EN 13704 against C. Difficile in presence of low organic load / without organic load Results: 5.0 % 0.3 g/l Albumin 60 min. 5.0 % without Albumin 60 min.</p>



<p>Avian influenza virus (H3N8 / H5N1) Result according EN 14476:2005 Influenza virus A/duck/Ukraine/1/63 (H3N8) was incorporated as surrogate of Avian influenza virus (H5N1) due to bio safety reasons. Clean conditions 0.5 % 10 min. 1.0 % 5 min. Dirty conditions 0.5 % 30 min. 1 % 10 min.</p>	<p>Swine Influenza Virus (H1N1) Result according to EN 14476:2005 in order to achieve a four log reduction (inactivation >99.99%) in a quantitative suspension test. Dirty conditions 0.5% 15 min</p>
<p>Avian Influenza Virus H5N1 Testing carried out by Prof. Oxford, Retroscreen Laboratory, Queen Mary Medical School, University of London. Study number ECV-PCF-001 December 2005 The test article reduced the virus titre by at least 3 -log₁₀ TCID₅₀/ml (99.90%) Clean conditions 0.09% 30 min</p>	<p>EN 13727 Bactericidal test for instruments in medical areas Test strains: P. aeruginosa, S. aureus, E. coli and E. hirae Result: 0.3g/l Albumin 2.00% 5mins 3.0g/l Albumin 4.00% 5 mins</p>
<p>EN 14476 Polio virus Clean conditions 4.0 % 30 min. Dirty conditions 6.0 % 120 min.</p>	<p>EN 14476:2005 Adeno virus Clean conditions 2.0% 60 min. 4.0% 30 min. Dirty conditions 2.0% 60 min. 4.0% 30 min.</p>



Areas of application:

Hospitals

Schools

Shopping malls

Airports & ports

Offices- Government & commercial

Domestic homes

Military buildings

Prisons

Agricultural & veterinary establishments (esp. poultry houses)

Food processing areas

..... **anywhere** that requires high levels of disinfection



Cambridge Scientific Technologies Ltd

Registered in England. No. : 06997415.
Registered Office: 40 Horsenden Lane South
Perivale
Middlesex UB6 8AD
United Kingdom

info@cambtech.co.uk

www.cambtech.co.uk

Tel. +44 (0) 20 7193 3341