

NewGenn

NewGenn Antimicrobial Cleanser



Intuitive Infection Control

Presented by:

NewGenn

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Section 1

Summary

NewGenn Antimicrobial Cleanser is a spray created as an alternative to alcohol and neutral detergent sprays in order to provide:

1. Rapid control against:
 - Noro Virus (Winter Vomiting Disease Virus, Norwalk Virus) using FCV as the surrogate
 - Bacteria
 - Fungi
 - and to a limited extent bacterial and fungal spores
2. A safe mild liquid that can be sprayed near patients including premature babies and the elderly without affecting them if it goes onto the patients
3. A liquid with excellent cleaning action
4. An alternative to alcohol sprays to
 - Help users who find alcohols offensive on religious grounds
 - Adhere to health and safety guidelines including CoSHH which require the replacement of flammable solvents when possible
 - Assist patients with respiratory ailments that are aggravated by alcohol vapour.
5. An additional component of an extensive range of chemically compatible infection control products
6. A product that can safely be used in the home, community care, transport settings like cruise ships and airlines, the food sector including restaurants as well as in hospitals.

The material presented in this document is intended to show that this new and innovative product has a clear potential to reduce healthcare associated infections.

Section 2

Composition of the product

Before presenting the exact names of the active ingredients it is important to outline the logic on which the ingredient selection was made.

1. Ingredients derived from plant oils were used to encourage enthusiastic user compliance.
2. The cleaning power needed to expose microbes thereby making them easier to kill with mild chemistry came from ingredients with detergent action
3. Protection for resident skin flora was achieved by using long-chain plant oil ingredients that layered over that flora
4. Action against pathogenic transient skin flora was enhanced with ingredients that made hands smooth making it more difficult for transient pathogens to adhere
5. The likelihood of bacterial resistance was overcome by selecting ingredients which attack the negative charge of the relevant bacteria so resistance can not occur unless the bacteria undergo an extensive change in their most fundamental biochemistry
6. Very rapid virucidal action against Noro Virus was achieved by including ingredients that inactivated the ionic forces between the coat proteins allowing the detergent moieties to enter the viral structure and destroy the nucleic acid.

The liquid in NewGenn Antimicrobial Cleanser is a 1% solution in water of NewGenn High Level Disinfectant. The ingredients and their respective inclusion rates are:

Ingredient	CAS Number	NewGenn Antimicrobial Cleanser %
Coco alkyl benzene ammonium chloride	121-54-0	<0.03
Didecyldimethyl ammonium chloride	7173-51-5	<0.02
Coco amine oxide	70592-80-2	<0.01
Acidity modifier 1	Secret	<0.02
Acidity modifier 2	Secret	<0.01

The precise identities of the two acidity modifiers are commercially secret but their very low inclusion rates ensure they are safe for users and the environment. Further comment on safety is provided in section 4.

The Material Safety Data Sheet for NewGenn Antimicrobial Cleanser is shown on the following pages.

Safety Data Sheet.

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND COMPANY

MANUFACTURER / SUPPLIER:

NEWGENN RESEARCH LIMITED

Unit 5 Shepherd's Grove Industrial Estate West, Stanton, Bury St Edmunds, Suffolk, England.
IP31 2AR

Tel: 01359 253840 Fax: 01359 251836 www.newgenn.com

PRODUCT NAME:

NEWGENN Antimicrobial Cleanser spray

REFERENCE:

SAF235 Issue date: 24 May 04 Issue Number: 2

PHYSICAL FORM: Liquid.

PRODUCT TYPE: Surface Sanitiser.

CONTAINERS: Spray bottles - Plastic.

2. COMPOSITION / INFORMATION ON INGREDIENTS

NAME AND % ACTIVE

Water to 100%

Didecyldimethylammoniumchloride <0.5%

Alkyldimethylbenzylammoniumchloride <0.5%

Alkyl amine oxide <0.5%

pH stabilisers <0.5%

3. HAZARDS IDENTIFICATION

Possibly harmful if swallowed in very large quantities.

4. FIRST-AID MEASURES

EYE: Wash immediately with copious quantities of water. Seek medical advice.

SKIN: Not a known skin irritant.

INGESTION: Remove material from mouth. Drink 1 or 2 glasses of water. Obtain medical attention without delay.

INHALATION: Not appropriate.

EQUIPMENT AT WORK: Eye washing facilities.

5. FIRE-FIGHTING MEASURES

FLAMMABILITY: Not flammable

EXPLOSIVE HAZARDS: None known

SPECIAL PROTECTIVE CLOTHING: Breathing apparatus should be worn when tackling fires involving this product, mainly related to the plastic bottle combustion products.

SUITABLE EXTINGUISHERS: Any can be used.

EXTINGUISHERS WHICH CAN NOT BE USED: None.

HAZARDOUS COMBUSTION PRODUCTS: Toxic and irritant fumes may be given off when this product is heated to combustion.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: None essential but goggles will protect against contact with eyes.

SPILLAGE CLEAN-UP: Observe local legislation. Absorb large spillages with a mop or damp cloth. Wash residues and small quantities away to drains with water.

7. HANDLING AND STORAGE

HANDLING: No special precautions necessary if used correctly. Avoid eye contact and ingestion. Wash hands at the end of the work.

STORAGE: Store in original, closed containers in dry conditions. Avoid temperature extremes.

SHELF LIFE: Two years from date of manufacture.

OPEN LIFE: Not to exceed shelf life.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

None necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear liquid

ODOUR: Odourless

SOLUBILITY IN WATER: Fully miscible

VISCOSITY AT 20°C: As water

pH: 6 – 8

BOILING POINT °C: 100

FLASH POINT: Not Applicable

DANGER OF EXPLOSION: Product is not explosive

DENSITY AT 20°C: 1.0 g/ml

10. STABILITY AND REACTIVITY

Stable if stored and used according to instructions. No dangerous reactions or degradation products known.

11. TOXICOLOGICAL INFORMATION

EYE: Probably slight irritation in 24 hours following exposure.

SKIN AND MUCOUS MEMBRANES: Not a known irritant.

INGESTION: Possibly harmful in very large volumes.

SENSITISATION: No sensitising effect known.

INHALATION: Not applicable.

OTHER TOXICOLOGICAL INFORMATION: Oral LD₅₀ rat: Expected >2000 mg/kg.

12. ECOLOGICAL INFORMATION

May be hazardous to water in very large volumes.

13. DISPOSAL CONSIDERATIONS

Disposal of product and packaging must be according to local regulations.

14. TRANSPORT INFORMATION

Not classified as hazardous for transportation.

15. REGULATORY INFORMATION

In accordance with EC Directives / Ordinance on Hazardous Materials.

Code Letter and hazard designation of product: Product is not hazardous at the dilution provided.

Hazard determining components of labelling: None of the ingredients are hazardous at this low concentration.

Risk phrases: None.

Safety phrases:

26: In case of contact with eyes, rinse immediately with plenty of water and seek immediate medical advice.

45: In case of accident, adverse reaction or if you feel unwell, stop using the product and seek medical advice immediately.

Water hazard class: May be hazardous for water in very large amounts.

1. OTHER INFORMATION

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product feature and shall not establish a legally valid contractual relationship. Use as directed.

End of Safety Data Sheet.

Section 3

Efficacy data

In Vitro activity

NewGenn Antimicrobial Cleanser is a 1% solution in water of NewGenn High Level Disinfectant concentrate. Laboratory reports for High Level Disinfectant tested at 1% are therefore relevant for this product.

The Calici Virus evidence from Akzo Nobel on the following page relates to Feline Calici Virus. The latter is well established as the most appropriate surrogate virus for Noro Virus as the latter does not grow in tissue culture (*Doultree et al. Journal of Hospital Infection (1999) 41: 51-57*). The code name of the product tested by Akzo Nobel relates to a 0.5% dilution of NewGenn High Level Disinfectant which is half the concentration present in NewGenn Antimicrobial Cleanser. The results presented are therefore valid for this product.

The EN1276 results from the Hospital Infection Research Laboratory in Birmingham relate to TecMark Hand Rub which was a 0.5% solution of NewGenn High Level Disinfectant. (In the interests of clarity it is worth stating that NewGenn Foam Hand Rub is a 2% solution whereas TecMark Hand Rub was a 0.5% solution. The inherent formulation has remained constant and only the names and concentration have changed). The Birmingham EN1276 results presented are therefore relevant for this document.



**Telefax transmittal
cover sheet**

Date
1 October 2002
Number of Pages
(Incl. cover sheet)
1

To
Harley Farmer/Andrew Crowe

Company/Department
NewGenn

Fax number
01284 760425

From
Stuart Chalmers

Company/Department
Intervet UK - The Elms

Fax number
01480 466489
Phone number
01480 464242

Dear Harley

Herewith the results (\log_{10}) of the test substances SAIFER 'C' used to inactivate feline calicivirus.

<u>Inactivation time</u> (min)	SAIFER 'C'	Control
	<u>FCV</u>	<u>FCV</u>
0	≤ 2.5	3.6
5	≤ 2.5	
10	≤ 2.5	
30	≤ 2.5	
60	≤ 2.5	3.5

Toxic effect on cells at 10^{-1} dilution meant that no result could be given for a 1:10 dilution of virus. However, no virus was observed at the 1:100 dilution ($3.3 \log_{10}$) or above.

Kind regards

Dr W S K Chalmers
R&D Manager
01/10/02

Intervet UK Ltd.
The Elms
The Thicket
Houghton
Huntingdon
Cambs. PE28 2BQ
Tel: (01480) 464242
Fax: (01480) 481641

EFFICACY TESTS (EN1276)
SAIFER HYGIENE HAND RUB

(Note: NewGenn Antimicrobial Cleanser contains the same base formulation as Saifer Hygiene Hand Rub but at twice the concentration.)

TECMARK Ltd

HOSPITAL INFECTION RESEARCH LABORATORY
CITY HOSPITAL NHS TRUST
DUDLEY ROAD
BIRMINGHAM B18 7QH

FEBRUARY 2001

MANUFACTURER

TecMark ltd
St John's Innovation Centre
Cowley Road
Cambridge CB4 0WS

TEST PRODUCTS

Saifer Hand Rub

Ingredients - Cocoamido propyl benzene ammonium chloride, di-decyl dimethyl ammonium chloride, amine oxide, acidity modifiers.

Batch number 191200

Lot number 290101

STORAGE CONDITIONS

Room temperature

TEST ORGANISMS

Staphylococcus aureus	NCTC 10788
Pseudomonas aeruginosa	NCTC 6749
Escherichia coli	NCTC 10418
Enterococcus hirae	NCTC 12367

TEST METHOD AND VALIDATION 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 (Phase 2, step 1). Tests for disinfectants for medical establishments not yet ratified.

Product test concentration	Undiluted (i.e. 80% in the test)
Appearance product dilution	Clear solution
Contact times	1 and 5 minutes
Test temperature	20°C
Interfering substance	Bovine albumin 0.03% (clean solutions) 0.3% (dirty solutions)
Inhibition method	Dilution/neutralization
Neutralizer	Tween 80 30g/l, sodium lauryl sulphate 4g/l, lecithin 3g/l

Tests were performed to establish the suitability of this neutralizer in neutralizing the activity of the disinfectant without being inhibitory to the test organisms (method described in EN 1276).

SUMMARY OF TEST METHOD

The test method is described in 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 (Phase 2, step 1). Tests for disinfectants for medical establishments are not yet ratified. Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1 ml of the test bacteria with 1 ml of soil (0.3% or 3% albumin and then adding 8ml of disinfectant. After the required contact time, 1 ml is removed and added to 9 ml of recovery/neutralizer fluid which is then plated to detect surviving test bacteria.

RESULTS

BACTERICIDAL ACTIVITY OF SAIFER HAND RUB

USING PHASE 2 STEP 1 SUSPENSION TEST EN 1276

Log₁₀ counts/reduction achieved in 1 minute*

(Tests carried out in duplicate)

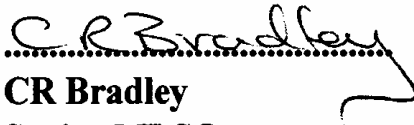
Log ₁₀ reductions achieved							
Test organism	Contact time	Log ₁₀ initial count (challenge)		Clean conditions (0.03% albumin)		Dirty conditions (0.3% albumin)	
		1 min	5 min	1 min	5 min	1 min	5 min
Pseudomonas aeruginosa	Test 1	7.64	7.64	>6.64	>6.64	>6.64	>6.64
	Test 2	7.90	7.90	>6.90	>6.90	>6.90	>6.90
	Mean	7.77	7.77	>6.77	>6.77	>6.77	>6.77
					PASS		PASS
Staphylococcus aureus	Test 1	7.69	7.69	>6.69	>6.69	>6.69	>6.69
	Test 2	7.88	7.88	>6.88	>6.88	>6.88	>6.88
	Mean	7.78	7.78	>6.78	>6.78	>6.78	>6.78
					PASS		PASS
Escherichia coli	Test 1	7.85	7.85	>6.85	>6.85	>6.85	>6.85
	Test 2	7.99	7.99	>6.99	>6.99	>6.99	>6.99
	Mean	7.92	7.92	>6.92	>6.92	>6.92	>6.92
					PASS		PASS
Enterococcus hirae	Test 1	7.99	7.99	>6.99	>6.99	>6.99	>6.99
	Test 2	7.53	7.53	>6.53	>6.53	>6.53	>6.53
	Mean	7.76	7.76	>6.76	>6.76	>6.76	>6.76
					PASS		PASS

To satisfy the requirements of this test a >5 log₁₀ reduction in test bacteria is required within 5 minutes.

CONCLUSION

When tested in accordance with EN 1276 (1997), undiluted Saifer Hand Rub possesses bactericidal activity at 20°C. A >5 log₁₀ (99.999%) reduction was achieved with all test organisms i.e. *Ps. aeruginosa*, *Staph. aureus* *Esch. coli* and *Ent. hirae* in 1 min and 5 mins under clean (0.03% albumin) and dirty (0.3% albumin) conditions.

To satisfy the requirements of the test, at least a 5 log 10 reduction in specified test organisms is required within 5 minutes when the disinfectant is tested at its intended use dilution. Performance under light (clean) and moderate to heavy (dirty) soiling was assessed and so was efficacy at 1 minute.


.....
CR Bradley
Senior MLSO


.....
JR Babb
Laboratory Manager


.....
Dr AP Fraise
Director

EFFICACY TESTS (EN 1276)
NEWGENN HIGH LEVEL DISINFECTANT
NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
MILL LANE
TUNSTEAD
NORWICH
NR12 8HP

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant

Ingredients – Cocoamido propylbenzene ammonium chloride,
di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: Methicillin Resistant Staphylococcus aureus
ATCC 33591

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	10 seconds, 1 minute
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

The test method described in EN1276 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 area (phase 2, step 1). Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Dirty conditions (0.3% albumin)

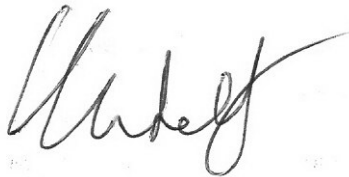
(Test carried out in duplicate)

Test Organism	Contact time	Log 10 initial count (challenge) Mean	Log (10) reductions achieved Mean
Staphylococcus aureus (MRSA)	10 secs	7.26	3.35
	1 min	7.26	5.06

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 complies with the criteria for acceptance after 1 minute.
(> 5 log (10) reduction in 5 minutes required)

A handwritten signature in black ink, appearing to read 'K.M. Self', is centered on the page.

K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

28th July 2004
K76744

5
End

EFFICACY TESTS (EN 1276)
NEWGENN HGIH LEVEL DISINFECTANT
NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
MILL LANE
TUNSTEAD
NORWICH
NR12 8HP

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant

Ingredients - Cocoamido propylbenzene ammonium
chloride, di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: Staphylococcus epidermidis NCTC 11047

Salmonella enteritidis NCTC 4444

Salmonella typhimurium NCTC 5710

Klebsiella pneumoniae ATCC 4352

Enterococcus hirae ATCC 10541

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	1 minute
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

The test method described in EN1276 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 area (phase 2, step 1). Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Log (10) counts/reduction achieved in 1 minute

(Test carried out in duplicate)

Log (10) reductions achieved			
Test Organism	Contact time	Log 10 initial count (challenge) Mean	Dirty conditions (0.3% albumin) achieved Mean
Staphylococcus epidermidis	1 min	7.04	>6.04
Salmonella enteritidis	1 min	7.32	>6.32
Salmonella typhimurium	1 min	7.58	>6.58
Klebsiella pneumoniae	1 min	7.28	>6.28
Enterococcus hirae	1 min	7.08	>6.08

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 complies with the criteria for acceptance ($> 5 \log (10)$ reduction in 5 minutes) against *Staphylococcus epidermidis*, *Salmonella enteritidis*, *Salmonella typhimurium*, *Klebsiella pneumoniae* and *Enterococcus hirae*.



K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

2nd August 2004

5
End

EFFICACY TESTS (EN 1276)
NEWGENN HGIH LEVEL DISINFECTANT

NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
MILL LANE
TUNSTEAD
NORWICH
NR12 8HP

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn Personal Care Product

Ingredients - Cocoamido propylbenzene ammonium
chloride, di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: Escherichia coli NCTC 12900
Salmonella choleraesuis NCTC 10653
Listeria monocytogenes NCTC 11994
Proteus vulgaris NCIMB 4175

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	1 minute
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

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The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Log (10) counts/reduction achieved in 1 minute

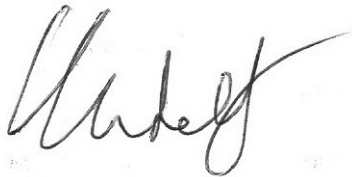
(Test carried out in duplicate)

Log (10) reductions achieved			
Test Organism	Contact time	Log 10 initial count (challenge) Mean	Dirty conditions (0.3% albumin) Mean
Salmonella choleraesuis	1 min	7.49	>6.49
Escherichia coli 0157	1 min	7.32	>6.32
Listeria monocytogenes	1 min	7.25	>6.25
Proteus vulgaris	1 min	7.38	>6.38

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 complies with the criteria for acceptance ($> 5 \log (10)$ reduction in 5 minutes) against *Salmonella choleraesuis*, *Escherichia coli* 0157, *Listeria monocytogenes* and *Proteus vulgaris*.

A handwritten signature in black ink, appearing to read 'K.M. Self', is centered on the page.

K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

6th August 2004

5
End

EFFICACY TESTS (EN 1276)
NEWGENN HIGH LEVEL DISINFECTANT

NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
MILL LANE
TUNSTEAD
NORWICH
NR12 8HP
01692 536303

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant

Ingredients – Cocoamido propylbenzene ammonium
chloride, di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: Campylobacter jejuni NCTC 11951

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	1 minute, 5 minutes
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

The test method described in EN1276 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 area (phase 2, step 1). Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Dirty conditions (0.3% albumin)

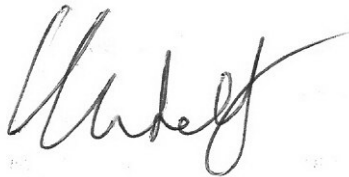
(Test carried out in duplicate)

Test Organism	Contact time	Log 10 initial count (challenge) Mean	Log (10) reductions achieved Mean
Campylobacter jejuni	1 min	6.99	>5.99
	5 min	6.99	>5.99

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 complies with the criteria for acceptance ($> 5 \log (10)$ reduction in 5 minutes) after 1 minute against *Campylobacter jejuni*.

A handwritten signature in black ink, appearing to read 'K.M. Self', is centered on the page.

K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

17th December 2004

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End

EFFICACY TESTS (EN 1276)
NEWGENN HIGH LEVEL DISINFECTANT
NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
MILL LANE
TUNSTEAD
NORWICH
NR12 8HP

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant

Ingredients - Cocoamido propylbenzene ammonium
chloride, di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: *Serratia marcescens* NCTC 10211

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	1 and 5 minutes
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

The test method described in EN1276 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 area (phase 2, step 1). Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Dirty conditions (0.3% albumin)

(Test carried out in duplicate)

Test Organism	Contact time	Log 10 initial count (challenge) Mean	Log (10) reductions achieved Mean
Serratia marcescens	1 min	7.32	4.91
	5 min	7.32	>6.32

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 complies with the criteria for acceptance after 5 minutes.

A handwritten signature in black ink, appearing to read 'K.M. Self', written in a cursive style.

K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

6th September 2004

5
End

EFFICACY TESTS (EN 1276)
NEWGENN HIGH LEVEL DISINFECTANT
NEWGENN RESEARCH LIMITED

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NR12 8HP
01692 536303

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant

Ingredients – Cocoamido propylbenzene ammonium
chloride, di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: *Corynebacterium bovis* NCTC 3224

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	1 minute, 5 minutes
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

The test method described in EN1276 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 area (phase 2, step 1). Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Log (10) counts/reduction achieved

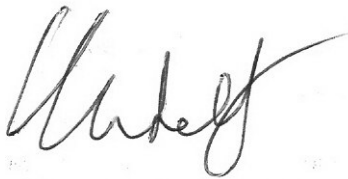
(Test carried out in duplicate)

Log (10) reductions achieved			
Test Organism	Contact time	Log 10 initial count (challenge) Mean	Dirty conditions (0.3% albumin) Mean
Corynebacterium bovis	1 min	6.36	>5.36
	5 mins	6.36	>5.36

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 complies with the criteria for acceptance ($> 5 \log (10)$ reduction in 5 minutes) after 1 minute against *Corynebacterium bovis*.



K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

8th October 2004

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EFFICACY TESTS (EN 1276)
NEWGENN HIGH LEVEL DISINFECTANT

NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
MILL LANE
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NR12 8HP
01692 536303

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant

Ingredients – Cocoamido propylbenzene ammonium
chloride, di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: Rhodococcus equi NCTC 1621

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	1 minute, 5 minutes
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

The test method described in EN1276 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 area (phase 2, step 1). Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Dirty conditions (0.3% albumin)

(Test carried out in duplicate)

Test Organism	Contact time	Log 10 initial count (challenge) Mean	Log (10) reductions achieved Mean
Rhodococcus equi	1 min	6.80	2.31
	5 min	6.80	>5.80

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 complies with the criteria for acceptance ($> 5 \log (10)$ reduction in 5 minutes) after 5 minutes against *Rhodococcus equi*.

A handwritten signature in black ink, appearing to read 'K.M. Self', written in a cursive style.

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Proprietor

8th October 2004

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End

Sporicidal activity.

The following test reports show NewGenn Antimicrobial Cleanser has some sporicidal activity against bacterial spores of *Bacillus subtilis* and *Clostridium difficile* and the fungal spores of *Aspergillus niger*. The test method used was EN1276 which requires a 5 log₁₀ reduction and as expected this mild product falls short of that level of decontamination.

However it does reduce the number of spores in minutes making it useful against the levels of spores anticipated in most clinical settings in which an antimicrobial spray is expected to be used. If the surfaces or fabrics are contaminated with faeces, and especially faeces from a patient affected with *C. difficile* diarrhea, the care staff will be expected to use an appropriate sporicidal disinfectant to decontaminate that faeces. This spray is then a useful adjunct in the surrounding areas where there is no visible soiling but there is very likely to be a log₁₀ or so of spores present.

Therefore NewGenn Antimicrobial Cleanser is presented as a product that will offer an element of prevention in the transfer of bacterial spores and be a valuable and useful part of a good prevention philosophy.

EFFICACY TESTS (EN 1276)
NEWGENN HIGH LEVEL DISINFECTANT
NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
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NORWICH
NR12 8HP

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
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Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant
Ingredients – Cocoamido propylbenzene ammonium chloride,
Di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: Bacillus subtilis IPP 5262
(spores)

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	5, 10, 15, 30 minutes
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

The test method described in EN1276 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 area (phase 2, step 1). Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Dirty conditions (0.3% albumin)

(Test carried out in duplicate)

Test Organism	Contact time	Log 10 initial count (challenge) Mean	Log (10) reductions achieved Mean
Bacillus subtilis	5 min	7.32	2.14
	10 min	7.32	2.34
	15 min	7.32	2.53
	30 min	7.32	3.04

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 does not comply with the criteria for acceptance after 30 minutes.
(> 5 log (10) reduction in 5 minutes required)



K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

28th July 2004
K76746

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EFFICACY TESTS (EN 1276)
NEWGENN HIGH LEVEL DISINFECTANT
NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
MILL LANE
TUNSTEAD
NORWICH
NR12 8HP

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant
Ingredients – Cocoamido propylbenzene ammonium chloride,
Di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: Clostridium difficile NCTC 11209
(spores)

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration	1.0% (i.e. 0.8 % in the test)
Appearance of product dilution	Clear solution
Contact time	5, 10, 15, 30 minutes
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1276)

Summary of test method

The test method described in EN1276 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 area (phase 2, step 1). Copies of EN 1276 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test bacterium with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Bactericidal activity of NewGenn High Level Disinfectant

Using Phase 2 step 1 Suspension Test EN1276

Dirty conditions (0.3% albumin)

(Test carried out in duplicate)

Test Organism	Contact time	Log 10 initial count (challenge) Mean	Log (10) reductions achieved Mean
Clostridium difficile	5 min	7.00	1.89
	10 min	7.00	3.03
	15 min	7.00	3.21
	30 min	7.00	3.46

To satisfy the requirements of this test a > 5 log (10) reduction in test bacteria is required within 5 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1276 does not comply with the criteria for acceptance after 30 minutes.
(> 5 log (10) reduction in 5 minutes required)



K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

28th July 2004
K76740

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End

EFFICACY TESTS (EN 1650)
NEWGENN HIGH LEVEL DISINFECTANT
NEWGENN RESEARCH LIMITED

SCIENTIFIC SERVICES
MILL FARM
MILL LANE
TUNSTEAD
NORWICH
NR12 8HP

Manufacturer: NewGenn Research Limited,
5 Shepherds Grove Industrial Estate – West,
Stanton,
Bury St. Edmunds
Suffolk IP31 2AR

Test Products:

NewGenn High Level Disinfectant
Ingredients -- Cocoamido propylbenzene ammonium chloride,
Di-decyl dimethyl ammonium chloride,
acidity modifiers

Lot No: 311001

Storage Conditions: Room temperature

Test Organisms: Aspergillus niger ATCC 16404
(spores)

Candida albicans ATCC 10231
(vegetative)

Test Method and Validation EN1276 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 (phase 2, step 1).

Product test concentration the	1% in water of standard hardness (i.e. 0.8% in test)
Appearance of product dilution	Clear solution
Contact time	1 minute and 15 minutes
Test temperature	20 C
Interfering substance	Bovine albumin 0.3% (dirty conditions)
Inhibition method	Dilution neutralisation
Neutraliser	Tween 80 10% Lecithin 3% Sodium thiosulphate 0.5% Cystine 0.1% Histidine 0.1%

Tests were performed to establish the suitability of this neutraliser in neutralising the activity of the disinfectant without being toxic to the test organisms (method described in EN1650)

Summary of test method

The test method described in EN1650 Chemical disinfectants and antiseptics – Quantitative suspension test for the evaluation of fungicidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional area (phase 2, step 1). Copies of EN 1650 are available from BSI, 389 Chiswick High Road, London W4 4AL.

The test method involves mixing 1ml of the test fungi with 1ml of soil (albumin), and then adding 8ml of disinfectant solution. After the contact time, 1ml is removed and added to 9ml of recovery/neutraliser solution which is then plated out to detect surviving organisms.

Fungicidal activity of Instrument Disinfectant

Using Phase 2 step 1 Suspension Test EN1650

Dirty conditions (0.3% albumin)

(Test carried out in duplicate)

Log (10) reductions achieved			
Test Organism	Contact time	Log 10 initial count (challenge) Mean	Log 10 reductions achieved Mean
Candida albicans	1 min	6.51	>5.51
	15 min	6.51	>5.51
Aspergillus niger (spores)	1 min	6.23	1.12
	15 min	6.23	2.19

To satisfy the requirements of this test a > 4 log (10) reduction in test fungi is required within 15 minutes

Conclusion

NewGenn High Level Disinfectant, when tested under dirty conditions as specified in EN1650 complies with the criteria for acceptance ($> 4 \log(10)$ reduction in 15 minutes) in 1 minute and 15 minutes against *Candida albicans*, but fails against *Aspergillus niger* spores at 1 minute and 15 minutes.



K.M Self, M.B.I.C.Sc.,M.R.S.H.
Proprietor

25th June 2004

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End

***In Vivo* activity**

The primary intended use for NewGenn Antimicrobial Cleanser is to cleanse and disinfect hard and soft surfaces but in practical use the spray can find its way onto patients. The formulation was designed to be compatible with skin and that spray drift will be safe for the patients, regardless of the age of those patients.

The simplest way to assess the *in vivo* antimicrobial effect of this product on skin is to extrapolate from the activity on skin of NewGenn Foam Hand Rub which is the same chemical formulation at twice the concentration. That rub achieves a bacterial count reduction which is well over the titre of bacteria generally found on skin and several times higher than the kill rate required to obtain FDA accreditation in the United States of America. Therefore should NewGenn Antimicrobial Cleanser spray contact a patient's skin it is likely to have a useful effect in reducing the titre of transient pathogenic bacteria. That effect may be relevant in itself but when combined with the similar positive effect brought when additional NewGenn products are it becomes possible to achieve a substantial prevention process.

Section 4

Safety Assessment

Ingredients

All the ingredients in NewGenn Antimicrobial Cleanser were selected as ones known to be safely used in numerous skin products. The quaternary ammonium compounds chosen have been used safely in the food industry for many decades. Therefore all the individual ingredients have high safety profiles.

NewGenn Antimicrobial Cleanser is free of flammable solvents. Under the health and safety CoSHH guidelines employers are required to replace hazardous substances as soon as viable alternatives are available. In the view of most Health and Safety personnel that time has arrived and surface sprays containing flammable solvents like alcohol should now be replaced.

The Formulation

The final product has been used in ward environments for years without any reports of problems. In fact numerous staff, cleaners and even patients have sought out NewGenn to purchase the product for use at home.

This same formulation plus a preservative is used as the liquid in NewGenn Wet Wipes which have been successfully and extensively used for years on premature babies in a special care baby unit. The infection control team has been very assiduously watching for deleterious effects on babies, staff and equipment and since none have arisen the wipes are still being used.

Environmental profile

NewGenn Antimicrobial Cleanser is biodegradable under the European and American requirements.

Section 5

Clinical and Epidemiological data

NewGenn Antimicrobial Cleanser is just one product in a range designed to accompany NewGenn's Prevention Philosophy. However while the infection control profession around the developed world continues to practice a De-contamination Philosophy they will not have the incentive to conduct clinical and epidemiological trials.

NewGenn is actively seeking collaboration with hospital teams so the successes gained with these products in other sectors can be repeated in the medical sector. Every time those in charge of infection control have encompassed the Prevention Philosophy the infection cycles have been broken. It is hoped that someone in the medical field will soon accept the challenge to do the same in a clinical hospital setting and provide the much needed clinical and epidemiological data their colleagues wish to see.

Section 6

Conclusion

NewGenn Antimicrobial Cleanser achieves all the design objectives presented on page 3.

The positive decision to use antimicrobial ingredients on a routine basis generates debate relating to the possible creation of bacterial resistance. That debate needs to be actively pursued as the Medical profession has a skewed impression of the technical reality. To become truly resistant those bacteria currently susceptible to this formulation need to completely change their biochemical pathways to the point of removing the negative charge on the outer cell wall. That has yet to happen in the dairy and food sectors where these ingredients have been used for many decades.

The infection control journals contain articles in which researchers have diluted some of these ingredients to the point where they cease to be effective. That research is of value in its own right but it is irrelevant in this debate because the product is never used at those low academic levels.

This product has been deemed to be Halal by the UK Halal Corporation because it contains no alcohol or any ingredients of animal origin and NewGenn as a company conducts its affairs in a suitable manner.

For far too long the infection cycles in the healthcare setting around the developed world have been dominant to the point of causing thousands of avoidable deaths every year. NewGenn has introduced a Prevention Philosophy that allows those infection cycles to be broken, and NewGenn Antimicrobial Cleanser is one of the products used to augment that new approach.

In less stagnant market sectors like travel, food, households and animal care NewGenn Antimicrobial Cleanser is readily accepted as an extremely cost effective product which is pleasant to use and easily satisfies the users needs.

Appendix

The products in the NewGenn range to date

NewGenn's infection control products are part of a system comprised of four mini-systems.

Mini-system

Hands

- Foam Hand Rub
- Foam Hand Wash
- Foam Deep Wash
- Wet Wipes

Environmental

- Antimicrobial Cleanser spray
- High Level Disinfectant
- Wet Wipes

Instruments

- Instrument Wash
- Instrument Disinfectant
- Wet Wipes

Patient

- Personal Care Foam
- Wet Wipes

Laundry

- System Sanitise

Air space

- Biobreez®

More products will be added when appropriate on a market-led basis. NewGenn Research is predominantly a research company with the research element firmly based on a Prevention Philosophy.