

## **Denaa**<sup>+</sup> PROBIOTIC CLEANING FITNESS & WELLNESS

## PLANT-BASED & SUSTAINABLE

SUPPORTS HEALTH & IMMUNE SYSTEM FUNCTION



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## **IMPROVES HYGIENE WITHOUT** HARMFUL CHEMICALS

#### BETTER FOR YOUR FITNESS EQUIPMENT, YOUR CLIENTS AND THE ENVIRONMENT

DENAA+ probiotic fitness & wellness cleaning products expertly improve the hygiene of sports environments without harsh chemicals. And they do this without corroding or discolouring your equipment.

These highly effective eco-detergents clean more than visible dirt: They actively restore healthy ecological balance (the microbiome), which supports the immunity and well-being of your clients, staff and visitors. The cleaning products are also effective against the Coronavirus.

All products are free from harmful chemicals, are non-corrosive and vegan. They are enriched with beneficial 'good' (probiotic) bacteria, naturally sourced from plants.

These added probiotics are one of nature's most powerful assets. They work at a microbial level in a safe and mechanical way:

They consume organic waste, dirt and stale sweat as well as biohazards - including 'bad' bacteria (including E. coli and MRSA), faecal matter and bio-allergens - pollen, mould spores and dust mite faeces. They can reach deep into nooks and crannies, and continue working for up to three days after application.

The range provides probiotic solutions to safely improve the hygiene of equipment, floors, surfaces, textiles, wet leisure facilities and EMS suits. Products include natural laundry detergent and chemical-free odour remover.

- Non-corrosive and non-damaging to gym equipment.
- Creates a more hygienic and inviting environment that supports health and well-being.
- Protects cleaning operatives from illness linked to long term use of chemical cleaning agents.











Containers







## **HOW PROBIOTIC PRODUCTS WORK**

#### NATURAL, SAFER & MORE RESPONSIBLE THAN CHEMICAL CLEANING

#### Safer, Mechanical Action Reduces Antimicrobial Resistance

Whilst the world has been fighting Covid-19, it's taken it's eye off an even scarier threat to global health: The increasing number of antibiotics that no longer work.

Spikes in secondary bacterial infections and unprecedented chemical cleaning is pushing bacteria and other microorganisms to increasingly resist previously effective treatments. They are continually evolving, growing a protective shield and mutating into resilient super bugs. This antimicrobial resistance (AMR) reduces the effectiveness of our most essential healthcare tool - antibiotics.

The good news is that probiotic cleaning products work in a mechanical way that safely inhibits harmful bacteria without causing them to mutate and develop resistance. They simply win the competition for the food and space needed to survive. The pathogens die and become a food source for the probiotics. This restores a safer and healhier microbial balance that supports well-being.

The helpful probiotics also significantly improve hygiene at a microbial level. They consume bio-allergens - pollen, dust mite faeces - as well as odour molecules, organic waste, dirt and grease, and faecal matter from unwashed hands.

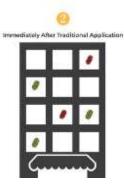
Restores
healthy
microbial
balance.

Does not create localised superbugs.

lasting, natural action.

### TRADITIONAL VS. PROBIOTIC CLEANING

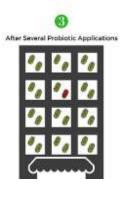












DENAA+ probiotic cleaning products are also eco-detergents that thoroughly cleanse. The action of cleaning combined with soap surfactants breaks apart virus fat membranes - including the Coronavirus. The helpful probiotics then safely consume the broken-down virus as a natural food source. They remain on surfaces and floors after cleaning, continuing to work between applications.













## Denaa\* CLEAN (ALL-PURPOSE) CLEANER

#### PROBIOTIC FITNESS & WELLNESS CLEANING

#### Restores a Healthier and More Hygienic Environment

DENAA+ Clean is a high strength 'all-rounder' spray - ideal for cleaning surfaces, glasses, mirrors, tiles, facilities and sports and fitness equipment. This highly effective eco-detergent helps you reduce chemical use in your gym, and does not cause chemical damage to equipment.

The spray is enriched with beneficial 'good' (probiotic) bacteria, naturally sourced from plants. These helpful probiotics clean more than visible dirt. They work in a natural, mechanical and efficient way to inhibit the harmful bacteria that thrive on communal equipment. This significantly reduces the risk of bacterial infections, including Communal MRSA and E. coli.

DENAA+ Clean eliminates the root causes of unpleasant bio-odours, including stale sweat. It also reduces pollen, dust mite faeces, skin flakes and mould that can cause sensitivity reactions. The spray has a longer-lasting action that continues to work between applications and can reach into nooks and crannies. This all creates a healthier and more hygienic environment.

#### Biodegradable with 99% Natural Ingredients

DENAA+ Clean has a fresh orange pomegranate aroma, is plant-based (vegan) and is made without animal testing. It is safer than chemicals for long term use by cleaning operatives - and for the environment. The anti-allergenic formula is suitable for sensitive skin and is non-polluting. Refill the ready to use bottle with DENAA+ Clean Concentrate for even more economical and sustainable cleaning.

#### **INSTRUCTIONS**

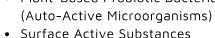
Shake DENAA+ Clean in the ready-to-use spray bottle before use. Lightly spray onto the surface and wipe with a clean microfibre cloth.

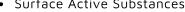
Refilling the DENAA+ Clean spray bottle or own bottle: Shake concentrate. Put 10 ml of concentrate into the empty spray bottle and fill with approx. 490ml of hand-warm fresh tap water. Close the lid and shake briefly. To ensure effective results, always adhere to the dosage specification of 1:50. One litre of Concentrate 50 yields 51 litres of ready-to-use DENAA+ Clean when diluted with tap water.

#### COMPOSITION

- Water
- Plant-Based Probiotic Bacteria (Auto-Active Microorganisms)
- Orange & Pomegranate Aroma













**ASK ABOUT THE RANGE!** 





Ready to Use Spray - 500ml Concentrate - 1 litre, 5 litre

**Eliminates** odours including stale sweat.







#### RECOMMENDATIONS

- Do not use with products that may change effectiveness.
- For use on waterproof surfaces only.
- Avoid contact with eyes.
- Store in a dry place 10°C 30°C.
- Keep out of the reach of children.









## **Denaa**<sup>+</sup> DRAIN & TOILET CLEANER

#### **PROBIOTIC FITNESS & WELLNESS CLEANING**

#### 100% Natural, Biodegradable and Chemical-Free

DENAA+ Probiotic Drain & Toilet Cleaner effectively cleans and descales toilets and drains without chemicals, chlorine or other harmful ingredients.

This eco-friendly drain cleaner is enriched with beneficial 'good' (probiotic) bacteria, naturally sourced from plants. The helpful probiotics work in a mechanical, natural way at a microbial level. They clean hair, skin scales, soap particles, fats, oils, dirt particles and faeces. They keep sewage pipes cleaner and eliminate unpleasant sewage and urine odours.



Ready to Use - 750ml

- Safer for operatives and the environment.
- Plant-based with no harmful chemicals.
- Longer lasting action cleans sewage pipes too.

#### **Actively Eliminates Unpleasant Odours**

DENAA+ Probiotic Drain & Toilet Cleaner has a pleasant, natural orange pomegranate aroma and is safer than chemicals for long term use by cleaning operatives. All ingredients are vegan and made without testing on animals.

The probiotics have a natural mechanical action that continues to work between application, giving longer-lasting results. You can also use this product as a toilet drain un-blocker.

Because this product is powered by probiotics, it does not promote antimicrobial resistance. You can use it in place of harsh chemicals.

#### **INSTRUCTIONS**

For best results, remove any existing blockages manually before cleaning. The probiotics are highly effective but do take a short time to do their work.

DENAA+ Drain WC Cleaner: Simply apply under the edge of the toilet bowl and leave to act for at least 10 minutes. The solution is thixotropic and so does not immediately disappear down the pan. After 10 minutes, clean with a brush and rinse with water.



#### **RECOMMENDATIONS**

- Do not use with products that may change effectiveness.
- Avoid contact with eyes.
- Store in a dry place 10°C 35°C.
- Keep out of the reach of children.

#### **COMPOSITION**

- Water
- Plant-Based Probiotic Bacteria (Auto-Active Microorganisms)
- Non-Ionic Washing
- Surface Active Substances
- Orange & Pomegranate Aroma

#### **ASK ABOUT THE RANGE!**















## **evaa**\* face mask hygiene spray

#### PROBIOTIC HOME CLEANING

#### Keeps Reusable Face Masks Clean and Hygienic

EVAA+ Probiotic Face Mask Hygiene Spray keeps your fabric mask fresher, cleaner and more hygienic between washes. Your mask feels more comfortable, which helps you keep it on for longer periods of time.

The spray has a magical, natural ingredient - beneficial 'good' bacteria (called probiotics), sourced from plants. These helpful probiotics create a protective barrier by introducing a natural, healthy micro-flora directly onto the fabric. This reduces facial skin irritation and inflammation under your mask ('face mask acne' or 'maskne').

The spray also removes organic dirt, stale saliva and unpleasant smells including stale sweat. It has a natural and refreshing Aloe Vera scent.

#### A+ Rated, Anti-Allergy Formula

EVAA+ Probiotic Face Mask Hygiene Spray is A+ rated for respiratory safety and air quality. It also meets NF EN ISO 16000-9 and NF EN ISO 16000-11 (VOC) standards.

The face mask refresher spray also helps if you suffer from organic-based respiratory allergies: the anti-allergy formula reduces symptoms caused by bio-allergens including dust mite, pollen and pet hair.

Finally, the spray protects your mask's effectiveness by reducing the washing frequency. Although washing your mask is always vital, intensive washing can make the fabric more permeable. Use our spray to extend the life of your mask and wear it for longer.

#### INSTRUCTIONS

Shake before use. Spray directly onto mask/textiles and allow to dry for approx. 10 minutes. Re-application recommended 2 - 3 times a day.

#### RECOMMENDATIONS

- Do not use in combination with other products.
- Avoid contact with eyes.
- Do not swallow.
- Store in a dry place 10°C 35°C.
- Keep out of the reach of children.
- This product is not a medicine or medical device.
   Natural Aloe Vera scent

#### COMPOSITION

- Water
- Plant-based probiotic bacteria (auto-active microorganisms)
- pH regulator
- Emulsifier (castor oil)









Travel Size - 100ml Spray - 300ml Refill - 1 litre

Reduces stale sweat, saliva and smells.

Helps protect facial skin and prevent 'maskne'.

Easy to use reusable face mask cleanser.













## **Denaa<sup>+</sup> FLOOR CLEANER**

#### PROBIOTIC FITNESS & WELLNESS CLEANING

#### Creates an Increasingly Healthier Floor Microflora

DENAA+ Fitness & Wellness Probiotic Floor Cleaner 100 is a highly effective, eco-friendly and responsible alternative to traditional synthetic and chemical cleaners.

It is specifically designed for sports and wellness facilities that are high traffic and at greater risk of microbial invasion. It can also be used as a concentrated wood floor cleaner.

This concentrated cleaner is economical as well as kind to the environment:

- One litre makes 100 litres when diluted, at a cost of only 18p a litre.
- Five litres makes 500 litres when diluted, at a cost of only 13p a litre.

The helpful probiotics clean floors safely and thoroughly at a microbial level, using a natural mechanical action. They inhibit harmful bacteria that cause infections and odours, without causing them to mutate or develop resistance. This helps reduce the risk of common bacterial infections - including E. coli, Campylobacter and Staphylococcus aureus.

Regularly cleaning with DENAA+ Probiotic Floor Cleaner builds healthier, more protective ecological conditions and restores a healthy microbiome. The mechanical action of the probiotics continues to work for up to three days after application, so results are longer lasting.

### Safer than Chemicals for Operatives and the Environment

DENAA+ Probiotic Floor Cleaner has a pleasant, natural orange pomegranate aroma and is safer for long term use by cleaning operatives. The ingredients are 99% natural, sustainable, vegan and made without testing on animals.

#### **INSTRUCTIONS**

Shake before use. Dilute DENAA+ Floor Concentrate 100 with lukewarm tap water at a ratio of 1:100 (for example, use 100 ml of concentrate per 10 litres of tap water).

#### RECOMMENDATIONS

- Do not use with products that may change effectiveness.
- For use on waterproof surfaces only.
- Avoid contact with eyes.
- Store in a dry place 10°C 35°C.
- Keep out of the reach of children.

#### COMPOSITION

- Water
- Plant-Based Probiotic Bacteria (Auto-Active Microorganisms)
- Surface Active Substances
- Orange & Pomegranate Aroma









Concentrate - 1 litre, 5 litres

Plant-based with no harmful chemicals.



















## **Denaa**<sup>+</sup> HAND SOAP

#### PROBIOTIC COMMERCIAL CLEANING

#### A Powerful, Natural and Moisturising Hand Soap

DENAA+ Probiotic Hand Soap is designed for areas at high risk of microbial invasion such as sports, medical and veterinary environments. The soap cleans hands thoroughly and gently at a microscopic level. Like all ecodetergents, it is effective against viruses, including Coronavirus.

This moisturising soap is enriched with beneficial 'good' (probiotic) bacteria, naturally sourced from plants. These helpful probiotics work in a safe and mechanical way to restore healthy microbial balance to the hands.

They inhibit harmful pathogenic bacteria, which significantly reduces the risk of bacterial infections, including MRSA and E. coli. Unlike chemical soaps, this mechanical action does not cause antimicrobial resistance. The helpful probiotics continue to work between washes, helping to protect the hands from external influences.

#### Effectively Cleans, Protects and Cares for Hands

DENAA+ Hand Soap is non-irritating, hypoallergenic and suitable for sensitive skin. Aloe Vera oil moisturises, softens, protects cell membranes and accelerates the formation of new skin cells. This provides long term care and protection for the hands.

The soap is a sustainable detergent, is kind to the environment and is quickly biodegradable. Ingredients are non-polluting - with no harmful chemicals, toxins, carcinogens, parabens or aluminium.

#### **INSTRUCTIONS**

Wet hands and pour 2 to 3ml into one hand. Wash for 20 seconds then rinse liberally with warm water. Dry thoroughly.

#### RECOMMENDATIONS

- Do not use in with products that may change effectiveness.
- Do not swallow.
- Avoid contact with eyes.
- Store in a dry place 10°C 35°C.
- Keep out of the reach of children.

#### COMPOSITION

- Plant-Based Probiotic Bacteria (Auto-Active Microorganisms)
- Aloe Vera Oil
- Thickener
- Surfactant
- pH Stabiliser
- Emulsifier (Castor Oil)
- Aloe Vera Aroma
- Dye













Bottle - 300ml Refill - 5 litres



**Protects from** harmful bacteria and viruses.

Certified vegan and not tested on animals.









## Denaa\* FRESH (ODOUR PREVENTION)

#### PROBIOTIC FITNESS & WELLNESS CLEANING

#### Freshens Equipment, Shoes & Textiles Between Washes

DENAA+ Fitness & Wellness Fresh Spray is a powerful odour prevention spray that works without harsh chemicals or artificial fragrances. It reduces the need for washing textiles, functional clothing, fabrics and shoes between uses.

The spray is also an effective antibacterial shoe deodoriser spray. It reduces foot odour in the shoe, helping to keep your trainers fresher for longer.

The spray is also especially effective for keeping electric muscle stimulation (EMS) suits fresher and more hygienic between uses.

DENAA+ Fresh is enriched with 'good' (probiotic) bacteria, naturally sourced from plants. The helpful probiotics inhibit harmful bacteria that cause infections and the odour molecules that cause. They also consume pollen, dust mite faeces, skin flakes and mould - which helps reduce allergy symptoms.

The probiotics continue to work for up to three days after application, so results last longer. They optimises a healthy microflora balance wherever applied.

#### Better for Health and the Environment than Chemicals

DENAA+ Fresh has a pleasant, natural orange pomegranate aroma and is safer for health than chemical air fresheners and artificial fragrances. The spray eliminates rather than masks smells such as stale sweat. Importantly, the probiotics remove bad odours mechanically, without the use of toxic chemicals. This makes it a more sustainable option.

Ingredients are naturally sourced, vegan and not tested on animals.

#### **INSTRUCTIONS**

Shake DENAA+ Fresh well before use. Spray directly onto fabrics, textiles, contaminated areas or inside shoes. Reapply after a few hours for heavy or older soiling. Contact us for the EMS suits protocol.

#### **RECOMMENDATIONS**

- Do not use with products that may change effectiveness.
- Avoid contact with eyes.
- Store in a dry place 10°C 35°C.
- Keep out of the reach of children.

#### COMPOSITION

- Water
- Plant-Based Probiotic Bacteria (Auto-Active Microorganisms)
- Anionic Substances
- Orange & Pomegranate Aroma





#### **ASK ABOUT THE RANGE!**

Ready to Use Spray - 100ml, 300ml

Refill - 5 litres

**Actively** 

odour.

mask

eliminates

stale sweat

Doesn't just

unpleasant odours.

Plant-based &

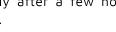
eco-friendly,

with no toxic

chemicals.



















## **Denaa**<sup>+</sup> opour remover

#### PROBIOTIC COMMERCIAL CLEANING

#### Neutralises Odours Without Chemical Air Fresheners

DENAA+ Probiotic Odour Remover is a highly effective and responsible alternative to chemical air fresheners and masking fragrances. The easy to use spray is scientifically formulated to remove the root causes of unpleasant odours. It is particularly in sports and higher occupancy environments.

DENAA+ Probiotic Odour Remover contains 'good' bacteria, naturally sourced from plants. These helpful probiotics eliminate the root causes of smells, rather than just masking with polluting chemicals.

They also inhibit harmful bacteria that cause infections and reduce bioallergens, including pollen, mould spores and animal dander.

The odour neutraliser spray is safe for operatives and is non-irritating and chemical-free. It contains no dyes and will not stain.

#### Non-Polluting, Natural and Free from Harmful Toxins

DENAA+ Odour Remover works in a direct, unique, natural and organic way. A patented deodoriser surrounds and encapsulates the molecule causing the odour. Once the molecule is enclosed, the odour can no longer be circulated.

The helpful probiotic bacteria then eat the odour molecule, treating it as an organic waste food source. This removes the root cause of the bad smell.

Unlike pathogenic (harmful) bacteria, the probiotic (helpful) bacteria in DENAA+ Odour Remover are odour-free. The spray has an added natural, fresh orange and basil aroma.

#### **INSTRUCTIONS**

Shake before use. Spray directly onto any sources of unpleasant odour.

#### RECOMMENDATIONS

- Do not use with products that may change effectiveness.
- Do not swallow.
- Avoid contact with eyes.
- Store in a dry place 10°C 35°C.
- Keep out of the reach of children.

#### COMPOSITION

- Water
- Plant-Based Probiotic Bacteria (Auto-Active Microorganisms)
- Odour Eliminator
- pH Stabiliser
- Orange & Basil Aroma
- Emulsifier (Castor Oil)





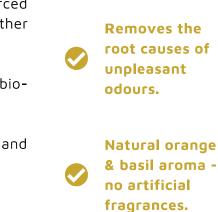


### ASK ABOUT THE RANGE!











Spray - 300ml

Refill - 5 litres







## Denaa\* WASH - LAUNDRY DETERGENT

#### **PROBIOTIC FITNESS & WELLNESS CLEANING**

#### 99% Naturally Sourced and Free From Toxic Chemicals

DENAA+ Fitness & Wellness Wash is an eco-friendly replacement for your classic laundry detergent. It is specifically designed for washing gym kit and textiles, including EMS (electro-muscle stimulation) suits.

You can use this natural laundry detergent in place of your regular detergent. It is kind on clothes and the environment.

Added 'good' bacteria called probiotics work in a safe and natural way to eliminate harmful bacteria, and unpleasant odours including stale sweat.

The formulation is anti-allergenic. It helps with allergy management and is suitable for people with sensitive skin.

#### Plant-Based, Eco-Friendly and Biodegradable

DENAA+ Wash has a pleasant, natural orange pomegranate aroma. The ingredients are selected by experts to ensure their effectiveness and are 99% naturally sourced.

This probiotic laundry detergent is sustainable, vegan and made without testing on animals. This product protects against antimicrobial resistance.



1 Litre

- Kinder to clothes, skin and the environment.
- Suitable for white and coloured textiles.
  - Supports better health & well-being.

#### **INSTRUCTIONS**

Shake before use. Pour 30ml (for hard water 40ml) of liquid detergent into the detergent drawer or directly into the washing machine drum. Recommended washing time: 20 minutes at 30°C.

Clean the detergent drawer of any remaining detergent before the first use.

#### RECOMMENDATIONS

- Do not use with products that may change effectiveness.
- For use on waterproof surfaces only.
- Avoid contact with eyes.
- Store in a dry place 10°C 35°C.
- Keep out of the reach of children.

#### **COMPOSITION**

- Water
- Plant-Based Probiotic Bacteria (Auto-Active Microorganisms)
- Surface Active Substances
- Orange & Pomegranate Aroma



**ASK ABOUT THE RANGE!** 















## **Denaa<sup>+</sup> WATER CLEANER**

#### PROBIOTIC FITNESS & WELLNESS CLEANING

#### Natural Cleaning for EMS Suits & Chlorine Replacement for Hot Tubs

DENAA+ Fitness & Wellness Water is a safer, more responsible alternative to chlorine and disinfectants for wet leisure water (hot tubs, spas, whirlpools). It also effectively maintains the hygiene of electro-muscle stimulation (EMS) jackets between washes and uses.

DENAA+ Water is enriched with beneficial 'good' (probiotic) bacteria, naturally sourced from plants. These helpful probiotics work in a reliable, mechanical and efficient way to clean contamination – including urine, organic waste, stale sweat and dirt – at a microbial level. They also inhibit the harmful bacteria that cause diseases, which significantly reduces the risk of bacterial infections.

The helpful probiotics continue to work for up to three days after application, giving longer lasting results. They gradually optimise the microflora in the water and restore a healthy, balanced microbiome and a more hygienic environment.

#### Provides a Healthier and More Pleasant User Experience

DENAA+ Water is safer for long term use by cleaning operatives than harmful chemicals. All ingredients are 99% natural, vegan and made without testing on animals. The natural mechanical cleaning action of the probiotics is sustainable and kind to the environment, whilst actively reducing antimicrobial resistance.

#### **INSTRUCTIONS**

Shake before use. DENAA+ Water is a concentrated product. Use fresh tap water for this two-step ecological cleaning process:

For pools: Use in a 1:1000 ratio. For example, dilute a maximum 1 litre of concentrate in 1m3 water. use a lower ratio for continuing use depending on pool size - but minimum 1:10000.

For larger water volumes: Pour concentrate in several places or feed-in via connected filters and circulation systems.

For jaccuzis: Use a ratio of 1:10000 i.e. 0.1 litre concentrate in 1m³ water.

For EMS equipment, filter systems used as an alternative to chlorine or for highpressure machine use: Please contact us for individual, specific solutions.

#### RECOMMENDATIONS

- Do not use with products that may change effectiveness.
- Avoid contact with eyes.
- Store in a dry place 10°C 35°C.
- · Keep out of the reach of chil





#### COMPOSITION

- Water
- Plant-Based Probiotic Bacteria (Auto-Active Microorganisms)
- Substances Orange & Pomegranate Aroma





#### Concentrate for Hot Tubs - 5 litres

Concentrate for EMS Jackets - 1 litre, 5 litres

Cleanses without chlorine or chemicals.



99% natural. plant-based, vegan and sustainable.



#### **ASK ABOUT THE RANGE!**









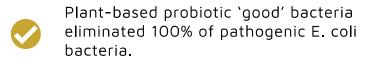
## Research Study

## PROBIOTIC INFECTION PREVENTION



E. Coli Bacteria Can be Spread by Poor Hand Hygiene

#### **Results Achieved**



Beneficial implications for inhibiting E. coli related infections in fitness and wellness environments.

## Probiotic Bacteria Have a Positive Effect Against E. Coli Bacteria Plant-Based 'Good' Bacteria Eliminate Pathogenic Bacteria that Cause Infections

#### Study

The aim was to prove that non-pathogenic probiotic bacteria have a positive effect against pathogenic Escherichia coli bacteria. Two tests were made with four E. Coli petri film plates containing differing volumes of bacteria. A sample consortium of diatoms (algae from domestic use contaminated water) was blended with a sample of the probiotic bacteria, then added to each petri film containing the E. coli.

<u>Test One:</u> 4ml probiotic bacteria and 4ml diatoms. 140 colonies (CFUs) counted on film plate pre-treatment.

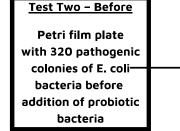
Test Two: 3ml probiotic bacteria and 5ml diatoms. 320 colonies (CFUs) counted on film plate pre-treatment.

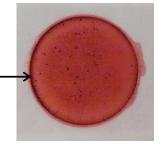
The plates were incubated for 24 hours at 37°C and then visually examined. Standard laboratory methods were used for efficient detection and enumeration.

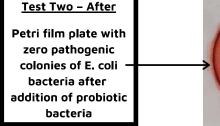
#### Results

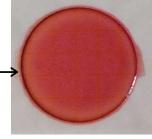
<u>Test One:</u> The probiotic bacteria and diatoms had eliminated all of the 140 pathogenic colonies.

Test Two: The probiotic bacteria and diatoms had eliminated all of the 320 pathogenic colonies.









#### **Conclusion**

These results prove that the non-pathogenic probiotic bacteria eliminated all E.coli colonies contained in the consortium of diatoms, even when the volume of probiotic bacteria was lower compared with the volume of diatoms. This significant result is particularly relevant to the presence of necrophagous bacteria (that eat dead and decaying flesh) and phage bacteria in the solution.

This internal test was carried out by Probiotic Group laboratory from October 23rd to October 30th 2018. For the full study visit: www.ingenious-probiotics.com/resources.



# Research Study PROBIOTIC INFECTION PREVENTION



Probiotic Bio-Cleaning also Reduces Community-Acquired MRSA, found in gyms & communal areas

#### Probiotic DENAA+ Bio-Cleaning Spray:

- Reduces the multi-drug resistant, pathogenic Staphylococcus aureus bacteria (MRSA) from 100,000 to 100 colony forming units within 22 hours.
- Achieves LOG 10 reduction of MRSA compared with traditional cleaning spray.

#### PROBIOTIC CLEANING SPRAY REDUCES MRSA BY 99%

With Naturally Sourced Probiotic Bacteria & Without Chemical Cleaning Agents

#### Study

The Luxembourg Institute of Science and Technology (LIST) carried out an independent laboratory study to measure the effectiveness of DENAA+ Patient Bed Bio-Cleaning Spray.

#### TEST ONE: The Effect of a Spray on the Passage and Survival of Probiotic Bacteria

Equal amounts of DENAA+ Patient Bed Bio-Cleaning Spray were extracted from the bottles:

(a) Using the spray and (b) using an automatic pipette.

#### TEST TWO: The Competition Between Bacillus Constituting Biomass (Probiotic Bacteria) and MRSA:

Bottles containing contaminated ingredients only (no probiotics) were treated by filtration to remove contaminating bacteria. A pathogenic bacterium of MRSA was placed on a nutrient-free medium, Agar gel (100,000 colony forming units per petri dish). The boxes were sprayed with:

(a) 1 x spray and (b) 3 x sprays of DENAA+ Patient Bed Bio-Cleaning Spray.

The Petri dishes were incubated for 22 hours at 37°C.

#### Results

**TEST ONE**: There was no difference in Bacillus growth between (a) and (b).

TEST TWO: DENAA+ ingredients alone: no inhibition of pathogenic bacteria MRSA.

DENAA+ ingredients + probiotic solution: Achieved a 99% reduction of the pathogenic bacteria MRSA (with one spray and 3 sprays) within 22 hours.

#### Conclusion

The use of the spray method of application does not have a negative impact on the biomass (the number of live organisms in a given area) of the probiotics. The product ingredients alone have no inhibitory effects. The DENAA+ ingredients + probiotic solution demonstrated a significant inhibition effect on MRSA.

NB: 99% reduction is achieved when the room temperature is maintained above 20°C.

### Follow Up

Although the results took longer to achieve than traditional cleaning agents, which can work almost immediately, the results were longer lasting. Continued use creates an increasingly healthier microbial environment, without the risk of the bacteria building resistance and without polluting the environment.

Read the full research study at www.ingenious-probiotics.com/resources.

Call +44 1268 544530 or email enquiries@pure-ingenious.com to find out more.



## **Case Study**

### A TRIBE CALLED SWEAT



#### Air & Surface Purification for a Cleaner, Healthier Gym

- Removes harmful bacteria, viruses, bio-allergens, plastic and dust particulates & chemical pollutants.
- Adds carefully chosen, plant-based, high quality, probiotic 'good' bacteria to restore environmental balance at a microbial level.
- Cleans surfaces without chemicals and disinfectants.
- ✓ Eliminates unpleasant odours including stale sweat.

## High Specification Air Purification Combined with Continuous Microbial Cleaning of Hard & Soft Surfaces

#### The Problem

A Tribe Called Sweat in Chelmsford, Essex, is the UK's premier rehabilitation and personal training centre. They provide a 5-star customer experience and provable results. However, with all the hard exercising going on, Tribe - just like all gyms - has to work hard to keep the gym areas and shared equipment hygienic and smelling fresh. Conscious of the environmental and health risks, it was important not to use harsh chemicals and anti-bacterial cleaning products and disinfectants.

#### The Solution

In an exciting development, we worked with Tribe to install the world's first 'reset and replenish' room cleaning solution: air and surface purification working together in one ducted system. One standard Ingenious Air System with high specification air purification was installed. This 'resets' the environment by removing all three types of serious airborne pollutants before they are breathed in:

- Disease-causing, opportunistic, pathogenic viruses and bacteria.
- Bio-hazards and bio-allergens, including skin cells, mould spores, pollen and dust mite faeces.
- Toxic pollutants and harmful volatile organic compounds.

However, indoor environments need to maintain natural, microbial balance between helpful and harmful bacteria. To achieve this, naturally sourced, plant-based, helpful bacteria called probiotics were added to the air stream via the duct work. These eco-friendly micro-organisms clean at a deep microbial level. They land on hard and soft surfaces in large numbers and inhibit the harmful bacteria in a natural and organic way. They reduce the risk of infectious bacterial diseases, including E. coli and Staphylococcus. The probiotics and air purification both remove the triggers of allergic reactions and the root causes of unpleasant odours. The induction delivery system reaches all the nooks and crannies and otherwise difficult to access areas.

#### Follow Up

The Ingenious Air System provides an active delivery system for clean, healthy and safe air. The gym is a cleaner, fresher, healthier and safer - and more inviting - place to work out.

"The gym never smells. It is important for the gym to not only look clean, but to smell clean and all of our members comment on the fact that it does exactly that, it smells as good as it looks". Ben Brand, Owner.

Call +44 1268 544530 or email enquiries@pure-ingenious.com to find out more.



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