

Bio Tech GT Probiotic Surface Spray

Complies with ISO 11014

SAFETY DATA SHEET			
COMPANY DETAILS			
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1. Chemical Product and Company Identification

Page 1 may be used as an emergency Safety Data Sheet

Trade / Commercial Name	:	Bio Tech GT Probiotic Surface Spray
Chemical Name	:	Bio Tech GT Probiotic Surface Spray
Chemical Family	:	Bacteria / Probiotic
Synonyms	:	N/A
UN #	:	Not required
Hazchem Code	:	Not required
ERG #	:	Not required
EAC	:	Not required
CAS #	:	Not available for mixture
Recommended use of Material	:	Bio Surface Spray Solution

2. Hazard Identification

GHS Classification of the mixture : This product poses no physical, health or environmental hazards according to the GHS

GHS Label Elements

Not Required

Signal Word : Not required

GHS Hazard Statements : Not required

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GHS Precautionary Statements : Not required

3. Composition / Information on ingredients

Substance / Mixture : Mixture

Hazardous Components : Genesis GT100 – Bacteria CAS#N/A - Concentration 0.2-0.6%
GHS Classification:



Warning
Skin Sensitizer – Category 1
Eye Damage Irritation – Category 2

CSB 10X FF – Bacteria CAS#N/A – Concentration 1-3%
GHS Classification:



Warning
Eye Damage Irritation – Category 2
Acute Toxicity (Oral) – Category 5
Acute Toxicity (Skin) – Category 5

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4. First Aid Measures

Product in Eyes	:	Wash immediately with copious amounts of water or isotonic saline solution. Seek medical attention should irritation persists
Product on Skin	:	Remove contaminated clothes and wash thoroughly with water. Seek medical attention should irritation persist
Product Ingested	:	Do not give anything by mouth to an unconscious person. Do <u>not</u> induce vomiting unless instructed by a physician. Keep patient warm and transport to Hospital.
Product Inhaled	:	Remove person to fresh air.

5. Fire Fighting Measures

Extinguishing Media	:	Product is non-combustible , use appropriate extinguishing media for surrounding fire
Specific Hazards	:	Product is non-combustible
Protective Clothing	:	Product is non-combustible

6. Accidental Release Measures

Personal Precautions	:	Wear suitable protective equipment. See section 8
For non-emergency Personnel	:	For personal protective equipment see section 8;
For first responders	:	For personal protective equipment see section 8;
Environmental Precautions	:	Product is not toxic to environment
Methods for cleaning up	:	Collect in containers for disposal

7. Handling and storage

Handling Precautions	:	Avoid contact with skin, eyes; Eating, drinking, and smoking in work areas is prohibited; wash hands after use; remove contaminated clothing and personal protective equipment before entering eating area.
Storage Precautions	:	Store under cover in a cool dry place.

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8. Exposure Controls / Personal Protection

Engineering Control Measures : No special requirements
Occupational Exposure Standards : No exposure limits applicable to components in this product

Occupational Exposure limits :

Substance	TWA OEL – RL	ST OEL-RL
Not Applicable	Not Applicable	Not Applicable

Biological exposure indices : Not available
Appropriate engineering controls : No special requirements
Personal Protective Equipment : Gloves, overalls, safety glasses
Respiratory Protection : Not Required
Hand Protection : Suitable protective gloves
Eye Protection : Safety Goggles
Skin and Body Protection : Suitable Safety clothing

Hygiene Measures : Wash garments regularly. Dispose of soiled gloves. Wash hands before eating, drinking or smoking.

9. Physical & Chemical Properties

Appearance : Clear Liquid
Odour : Perfumed
PH : Not determined for mixture
Melting Point : Not determined for mixture
Boiling point : Not determined for mixture
Auto-ignition : Not determined for mixture
Bulk Density : Product is in Liquid form
Solubility in Water : Soluble
Flash point : Not determined for mixture
Upper and lower flammability : Not determined for mixture
Vapour pressure : Not determined for mixture
Vapour density : Not determined for mixture
Relative density : Not determined for mixture
Auto ignition temperature : Not determined for mixture
Viscosity : Not determined for mixture

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10. Stability and Reactivity

Reactivity	:	Not determined for mixture
Possibility of hazardous reaction	:	No hazardous reaction
Incompatible materials	:	Not determined for mixture
Stability	:	Stable
Conditions to avoid	:	Store under cover, room temperature
Hazardous decomposition Products	:	This product is not hazardous to the environment

11. Toxicological Information

Acute toxicity	:	Not acutely toxic
Skin corrosion/irritation	:	Not corrosive to skin
Serious eye damage/irritation	:	Eye Irritation Category 2
Inhalation	:	Not acutely toxic
Ingestion	:	Not acutely toxic
Germ cell mutagenicity	:	Not determined for mixture
Carcinogenicity	:	Not determined for mixture
Reproductive toxicity	:	Not determined for mixture
STOT – single exposure	:	Not determined for mixture
	:	
STOT – repeated exposure	:	Not determined for mixture
Aspiration hazard	:	Not determined for mixture

12. Ecological Information

Ecotoxicology	:	Not toxic to the environment
Persistence and degradability	:	Product contains bacteria that will biodegrade
Bio accumulative potential	:	Will not bio accumulate
Mobility in soil	:	Not determined for mixture
Other	:	Not determined for mixture

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13. Disposal Considerations

Supplier can make no statement concerning disposal of used product, since product may become contaminated by materials during use, but the following guidance is given in good faith. Dispose according to local regulations.

14. Transport information

This material is not classified as a dangerous substance for transport, and restrictions do not apply for land/air/ sea transport

UN Number	:	Not relevant
UN Proper Shipping Name	:	Not relevant
UN Classification	:	Not relevant
Packing Group	:	Not relevant
Marine Pollutant	:	No
Regulatory information	:	Not relevant
Special precautions for user	:	No special precautions needed

15. Regulatory Information

- 1) Hazardous Chemical Substances regulations – GNR 1179 -25 August 1995
- 2) ISO 11014: 2009 – Safety Data Sheet for chemical products
- 3) Globalized Harmonised System for classification and labelling of chemicals - Rev 5

16. Other Information

- 1) The safety data sheet contains confidential proprietary information. The information accumulated herein is believed to be accurate at time of Safety Data Sheet design. This information is offered solely for use in evaluation of this product in respect to safety, health and environmental hazards.
- 2) The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with other material or in any process. While the opinions expressed herein are those of qualified experts and while Black Beetle believes that the information contained herein is current as of the date of this Safety Data Sheet, Black Beetle does not warrant the accuracy thereof. Since the use of this information and



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of these opinions and the conditions of use of the product are not within the control of Black Beetle, it is the user's obligation to determine the conditions of safe use of the product.

BIO CLEANING SOLUTIONS

Bio Tech GT Probiotic Surface Sanitising Spray



Bio Tech Probiotic Surface Sanitising Spray

Black Beetle introduces new age surface hygiene sanitising (*to make clean and hygienic*) probiotic bio-enzyme technology. The definition of sanitising is - *make (something) more palatable by removing elements that are likely to be unacceptable or controversial.*

Keeping surfaces clean through improved hygiene is one of the most important steps we can take to avoid getting sick and spreading germs. Many diseases and conditions are spread by not practising proper Hygiene protocols.

When should you apply Bio Tech GT Probiotic Surface Sanitising Spray?

- Before entering a restricted or controlled health risk area
- Before, during, and after preparing food
- Before eating food
- Before and after caring for someone who is sick
- After using the toilet
- After changing diapers or cleaning following the use of the toilet
- After blowing your nose, coughing, or sneezing
- After touching an animal, animal feed, or animal waste
- After handling pet food or pet treats
- After touching garbage or any surface that may harbour germs or viruses

How should you apply Bio Tech GT Probiotic Surface Sanitising Spray?

Of prime importance in infection control is the “**Protection Time Factor**”.

Studies show that staff hand washing is inconsistent. Therefore, the protection from disinfecting soaps and sanitizers of only minutes, compared to the many hours of Bio Enzyme / Probiotic protection offering significant advantages in infection control.

Disinfectants stop working as soon as they are dry/evaporated. Bio Enzymes / Probiotics keep working, cleaning and protecting surfaces, for up to three days after each application. However, since skin is a dynamic environment that is constantly touching many different surfaces, repetitively being contaminated and washed, the Probiotic Bio Enzymes should be used several times per day.

Bio Tech GT Probiotic Hygiene Sanitising Spray forms a healthy and protective micro flora on surfaces

PRODUCT CHARACTERISTICS

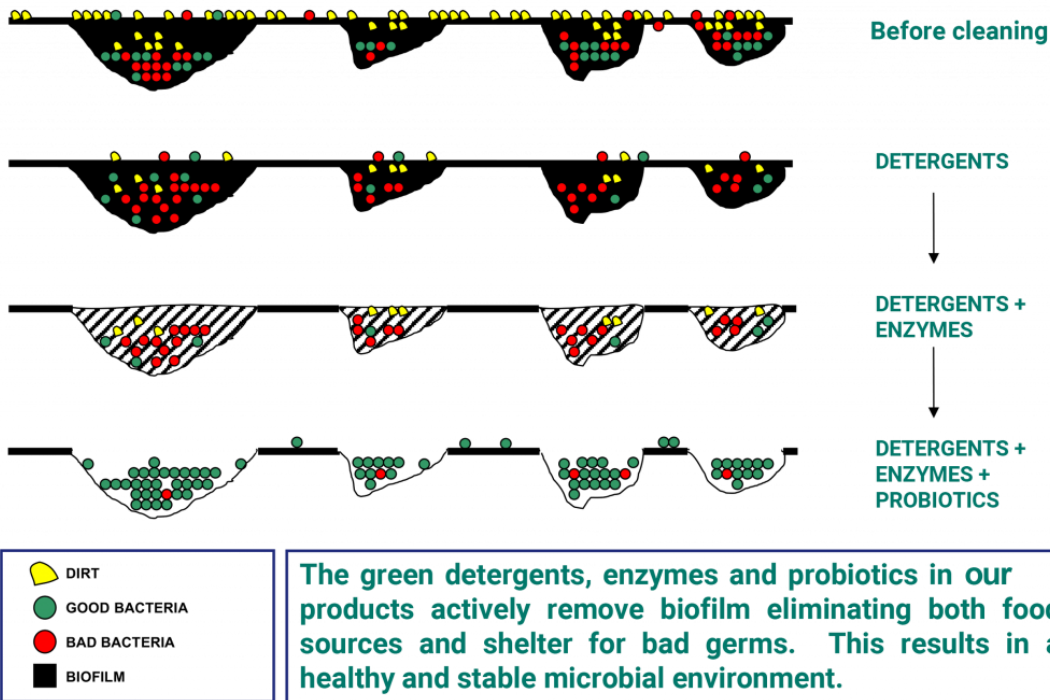
- **Bacteria Counts** : 3 X 10⁷ /ml
 - **Bacteria Type** : Bacillus consortium producing the following enzymes:
 - ✓ **Protease** – breaks down proteins into amino acids – but importantly it has the potential of breaking down the protein shell of bacteria and viruses when in contact long enough. Unlike alcohol sanitisers which evaporate almost immediately Bio Tech GT Probiotic Spray will remain on surfaces up to several days
 - ✓ **Lipase** – breaks down fats into fatty acids & glycerol. Importantly it has the potential of breaking down the lipid envelope of bacteria and viruses if in contact long enough. * Virus are very fragile; the only thing that protects it is a thin layer of fat and protein. This is why probiotics are the best remedy, because the surfactant has the potential to dissolve the fat. By dissolving the fat layer, the protein molecule disperses and decomposes on its own.
- Additional Enzymes within the formulation add greater beneficial effect -**

- ✓ **Amylase** – starch acts as a glue for dirt – amylases catalyse the break-down of starch into sugars which are then further used as a food source by the bacillus
- ✓ **Cellulase** – breaks down cellulosic material
- ✓ **Urease** - catalyzes the hydrolysis of urea into break-down products.
- ✓ **Esterase** - splits esters into an acid and an alcohol in a chemical reaction with water called hydrolysis. Esters have characteristic odours most of which are pleasant/fruity, however can also include onion/garlic and worse odours
- ✓ **Xylanase** – help in breaking down plant cell walls.
 - What this means – the bacillus use the multitude of enzymes produced to break down the components of malodour and staining to provide microbial cleaning at the smallest level of dirt/contamination.

- **Salmonella** : Not detected
- **Appearance** : Dark Green Liquid
- **Fragrance** : Pleasantly perfumed
- **Shelf-life** : Two years; maximum loss of 1.0 log at recommended storage condition

We know that *Bacillus* strains are some of the most active in terms of producing extracellular metabolites that influence the growth of other organisms. These go by a wide range of exotic names like butirosin, lichenicidin, macrolactin, bacillaene which have all been extensively characterized as broad spectrum anti- bacterials

Bio Tech GT Probiotic Surface Spray It is well known that *Bacillus* stains can produce surfactin, one of the most potent emulsifying agents ever identified. This has a function of emulsifying non aqueous substrates like fats, oils and grease converting them to the ideal form for biodegradation. Targeted surfactin production in situ by *Bacillus* spores may reduce the need for chemical surfactants within a formula. Concentrated surfactin may also have significant membrane disruption effects and may be a further mechanism for anti- microbial effects. The simplest mechanism for their effect is simply “competitive exclusion”. There is only a limited amount of food (or other limiting growth requirement) within any environment. Those organisms that reach the buffet first and grab the most food will squeeze out the slower reacting organisms and starve them of food or other environmental factors and eventually dominate the environment. This is probably the simplest mechanism to explain to a layperson and is also welcomed by regulators as there is no direct anti- microbial affect and no mediating metabolites that need to be considered



Bio Enzymes are special proteins that can break large molecules into small molecules. Different types of enzymes can break down different nutrients: ... protease enzymes break down proteins into amino acids. Lipase enzymes break down lipids (fats and oils) into fatty acids and glycerol.

Dilution and Application

Mix 1 liter per 10 liters of clean water into a holding container – spray all surfaces that require sanitising every 3 to 5 hours.

Product can be used in the handheld or tunnel fine mist spray applicators.

Caution. Please see Material Safety Data Sheet for more detailed safety profile
Do not spray directly into eyes, nose, and mouth or onto open wounds
Do not mix with other conventional chemicals

Product Availability

Bulk Pack Sizes – 25 liter and 5 liter Containers

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