

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PRODUCT AND OF THE COMPANY/UNDERTAKING

Identification of the Substance or Preparation: **GPN2 – Enzyme Fortified Bacterial Spore Concentrate**

Intended use of the Substance/Preparation: Non Chemical Biological Cleaning Concentrate

Company/Undertaking Identification: Bio8 Ltd
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: **Mixture**

Ingredients: **Naturally Occurring, NON-engineered aerobes and facultative aerobes, 100% Stabilized (NO Chemicals)**

Chemical Name: **N/A**

<u>Substance</u>	<u>Approx. %</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>CARCINOGENICITY NPT IARC</u>	<u>OSHA</u>	<u>CAS No.</u>
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Contains No Hazardous Components as Listed in 29 CFR 1910.1200 or Other Pertinent Sections of OSHA Regulations

3. HAZARDS IDENTIFICATION

Health Hazard (inhalation, ingestion, contact with skin or eyes):

Most Important Hazards: The preparation is not classified as dangerous according to the criteria laid down in EU Council Directive 1999/45/EEC.

Most Important Adverse Human Health Effects: None identified.

Environmental Hazard : see section 12.

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4. FIRST-AID MEASURES

Primary Route(s) of Entry: **Eye and Skin Contact, Ingestion.**

Carcinogen Listed In: **Not Listed.**

Health Hazards: **Acute irritation sensations. No known chronic effects.**

Signs & Symptoms of Exposure: **Mild irritation, redness of eyes. Prolonged or repeated exposure may cause mild skin irritation. Nausea, vomiting, or diarrhea may result from ingestion.**

Medical conditions Generally Aggravated by Exposure: **Bacterial infection may occur through open wounds or broken skin.**

Emergency First Aid Procedures: **Flush eyes with plenty of cool water for at least 15 minutes. If irritation persists, obtain medical attention. Avoid contact with open wounds or broken skin. In case of skin contact, wash area with soap and water, apply a topical antiseptic agent. In case of ingestion, give affected person several glasses of water and induce vomiting. Obtain medical attention. Never give anything by mouth to an unconscious person.**

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: All types of extinguishers may be used.

Extinguishing Media not to be used: None

Specific Exposure Hazards: None

Protective Equipment for Firefighters: Self-contained breathing apparatus should be worn.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: See section 11.

Environmental Precautions: Avoid excessive release to environment. The product is designed to digest complex fat matters, grease, oil, cellulose and starch through enzymatic metabolism in the drainage system.

Methods for Cleaning Up: Clean up by collection.
Dispose of waste material in accordance with local or national regulations.

7. HANDLING AND STORAGE

Handling:

Precautions: The substance should be handled under conditions of good industrial hygiene and in conformity with any local regulations in order to avoid unnecessary exposure.

Technical Measures: The use of gloves will reduce exposure to the preparation.

Specific Requirements: None.

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Storage:

Specific design for storage rooms or vessels:	None
Incompatible Materials:	Strong acids or alkali compounds may inactivate biological cultures. Avoid strong oxidising agents. Do not store in metallic containers
Conditions of Storage:	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Avoid freezing temperatures. Avoid temperatures above 45 °C to preserve biological stability.
Quantity Limits:	None
Packaging Materials:	Packaging can be recycled

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: **Not Required**
Protective Gloves: **Rubber Gloves**
Eye Protection: **Chemical Goggles**
Ventilation: **Local Exhaust**
Other Protective Equipment: **Not Required**
Hygienic Work Practices: **Wash hands Thoroughly After Use**

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Appearance:	Green
Odour:	Citrus aroma
pH:	approx 6.5-7.5
Boiling Point/Boiling Range:	> 212 °F
Melting Point/Melting Range:	Not applicable
Flash Point:	Not determined
Flammability (Solid, Gas):	Not applicable
Autoflammability:	Not determined
Explosive Properties:	Predicted not explosive based on non-chemical structure.
Oxidising Properties:	Not determined
Solubility	- Water solubility: 100% (aqueous product) - Fat solubility: Not determined
Partition coefficient n-octanol/water:	Not determined
Other Data:	None available

10. STABILITY AND REACTIVITY

Conditions to Avoid:	Excessive temperature variations, below 0°C or above 70 °C
Materials to Avoid:	Strong acid, chemicals or alkali compounds may inactivate biological cultures.
Hazardous Decomposition Products:	None anticipated

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11. TOXICOLOGICAL INFORMATION

Steps to be Taken if Material is Released or Spilled: Ventilate area. Pick up on absorbent material or flush away with water.

Waste Disposal Method: Consult Local Environmental Authorities.

Precautions to be Taken in Handling and Storage: Store in a cool, dry place. Keep container tightly closed when not in use. To maintain biological properties, do not freeze and do not store above 100°F.

Other Precautions: Keep out of Reach of Children.

HMIS HAZARD RATING INFORMATION			FLAMMABILITY	HEALTH	REACTIVITY
0-Minimal	1-Slight		0	1	0
2-Moderate	3-Serious	4-Severe			

Personal Protection: **B, X (Safety Glasses and Gloves, Ask Your Supervisor for Guidance).**

The product is formulated using a range of micro-organisms specially selected from the natural environment and that are known to be non-pathogenic to humans, animals or plants. It is advised to cover open wounds when in use.

12. ECOLOGICAL INFORMATION

Mobility: This preparation has high water solubility. Therefore it is likely to distribute predominantly to the aqueous environment.

Biodegradability: The preparation is expected to biodegrade rapidly. However no information on anaerobic biodegradation is available.

Accumulation: Not anticipated to bioaccumulate due to high water solubility and hence, biomagnification is not likely.

Ecotoxicity: The preparation is not anticipated to pose any environmental hazard. No data on toxicity specifically to soil organisms, plants and terrestrial animals are available.

Other adverse effects: There is no ozone depletion, photochemical ozone creation or global warming potential. Adverse effects in the sewage treatment plant are not anticipated.

Other information: Class 1 micro-organisms (European Federation of Biotechnology) selected from the natural environment.

13. DISPOSAL CONSIDERATIONS

Waste from Residues: Dispose of by incineration, landfill or to drain in accordance with local regulations.

Contaminated Packaging: Dispose of by incineration or landfill in accordance with local regulations.

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14. TRANSPORT INFORMATION

No special requirements

International Regulations Land: Not applicable.

Inland waterways: Not applicable.

Sea: Not applicable.

Air: Not applicable.

UN classification number: None

Local Regulations: Any relevant local regulations concerning transport should be observed.

15. REGULATORY INFORMATION

EC Regulations: The preparation is not classified as "hazardous" and therefore the following labels according to the requirements of Annex VI of Council Directive 67/548/EEC and in accordance with Directive 1999/45/EC are necessary

Prepared in accordance with COSHH Regulations 2002 and CHIP 3 Regulations 2002

R-phrases: None

SARA/TITLE III – CERCLA List of Hazardous Substances and Reportable Quantities (40 CFR 304.4): This product **does not** contain an ingredient(s) listed as a hazardous ingredient for Emergency Release Notification under section 304.

SARA/TITLE III – List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 300 & 305): This product **does not** contain an ingredient(s) listed as an extremely hazardous substance (EHS) for Emergency Planning under sections 301-303 and for Emergency Release Notification under section 304.

SARA/TITLE III – List of Toxic Chemical subject to Release Reporting (Community Right to Know (40 CFR 372): This product **does not** contain an ingredient(s) listed as a toxic chemical for Annual Release Reporting Requirements under section 313.

Local Regulations: Any relevant local regulations should be observed.

This product complies with legislation concerning the biodegradability of surfactants.

16. OTHER INFORMATION

Use in accordance with directions.

The above information is based on the present state of our knowledge at the time of publication. It is given in good faith, no warranty is implied with respect to quality or specification of product. The user must satisfy himself that the product is entirely suitable.