

TECHNICAL DATA SHEET

Microbial BioSolutions Product Information Template

[PRODUCT_NAME] | [PRODUCT_CODE] | [VERSION_DATE]

Use this file as a master template. Replace all bracketed fields before uploading to the HYGEM website or sharing with agencies.

1. Product Identification

Product Name	[e.g., GEMBIOZ 300L Synbiotic Liquid]
Product Code	[e.g., GEM-300L]
Brand / Business Unit	HYGEM / GEMBIOZ / [Business Unit]
Product Category	[Probiotics / Synbiotics / Postbiotics / Environmental BioSolutions]
Document Version	Version [X.X] Effective Date [YYYY-MM-DD]
Intended Users	Authorized agencies, distributors, technical sales teams and professional end-users

2. General Description

[PRODUCT_NAME] is a [liquid/powder/granular] microbial biotechnology product designed for [target application]. It contains selected beneficial microorganisms and fermentation-derived functional metabolites to support [key benefit 1], [key benefit 2] and [key benefit 3].

Agency-use statement: This sheet is intended for technical communication. Product registration, label claims and dosage instructions must follow local regulations and approved labels.

3. Product Formula / Active Composition

Component Group	Example / Placeholder	Function
Lactic acid bacteria	[Lactobacillus spp.; confirm species/strain]	Organic acid production; gut/environment microbiome support
Bacillus spp.	[B. subtilis / B. licheniformis / others; confirm]	Enzyme activity; organic matter conversion; stability
Yeast-derived components	[Saccharomyces cerevisiae or yeast derivatives; confirm]	Cell-wall polysaccharides, peptides and nutritional factors
Fermentation metabolites	[organic acids, peptides, nucleotides, SCFA-related metabolites]	Functional postbiotic support and microbial ecosystem modulation

4. Viable Count / Guaranteed Analysis

Parameter	Specification	Test Method / Note
Total viable count	[e.g., >= 1 x 10^9 CFU/mL or CFU/g]	[Plate count / qPCR / batch QC method]
Target count range	[e.g., 1 x 10^9 to 1 x 10^10 CFU/mL]	Use only after QC confirmation
Moisture / solids	[TBD]	[Method]
pH	[TBD]	[Method]
Contaminant limits	[Salmonella: absent; E. coli: within limit; molds/yeasts: per spec]	Adapt to product category and local regulation

5. Product Specifications

Appearance	[e.g., brown to dark-brown fermented liquid / beige powder]
Odor	[mild fermentation odor; no rancid/off odor]
Specific Gravity / Bulk Density	[TBD]
Solubility / Dispersibility	[Water soluble / water dispersible / not applicable]
Operating pH Range	[e.g., pH 5-9; optimal pH near neutral]
Operating Temperature Range	[e.g., 10-45°C; avoid extreme heat]
Shelf Life	[e.g., 18-24 months when stored as directed]

6. Functional Benefits

- Supports beneficial microbiome balance under routine and stress conditions.
- Helps improve organic matter conversion, digestive efficiency or environmental performance depending on application.
- Provides fermentation-derived metabolites that support product activity beyond viable cell count alone.
- Designed for practical field use by professional agencies and technical distributors.

7. Recommended Use / Dosage

Application Scenario	Recommended Dosage	Frequency / Duration	Notes
Routine maintenance	[TBD]	[TBD]	Follow approved label and technical guidance
Stress / transition period	[TBD]	[TBD]	Use field observation to adjust program
System start-up / activation	[TBD]	[TBD]	For environmental or fermentation systems
Emergency intervention	[TBD]	[TBD]	Only if approved by product label and local regulations

8. Application Method

- Dilute with clean water before use when required.
- Mix thoroughly before application; liquid products should be shaken or circulated before dilution.
- Apply manually, through dosing equipment, waterline systems, sprayers or metering pumps according to product type.
- Avoid direct mixing with strong disinfectants, oxidizing agents, high-concentration acids/alkalis or antibiotics unless compatibility is confirmed.

9. Packaging / Shipping

Standard Packaging	[1 L / 5 L / 20 L / 200 L drum / 1000 L IBC / other]
Net Weight / Volume	[TBD]
Pallet Configuration	[TBD]
Shipping Classification	[Non-hazardous biological product; confirm per SDS and local transport rules]

10. Storage and Handling

- Store in original tightly closed container in a cool, dry and ventilated area.
- Recommended storage temperature: [TBD; e.g., 13-32°C for liquid microbial products].
- Avoid freezing, overheating, direct sunlight and contamination after opening.
- Use routine hygiene practices; safety glasses and gloves are recommended for bulk handling.

11. Regulatory / Quality Notes

- This template must be customized according to product registration, country-specific regulations and approved label claims.
- Species names, strain numbers and viable counts must be verified against the latest formulation record and batch QC certificate before publication.
- For agency download, publish together with the latest Safety Data Sheet when applicable.