

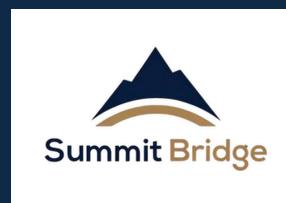
SUMMIT BRIDGE LIMITED

Advanced Biological Water Treatment Solutions

TECHNICAL DATA SHEET

Summit Bio Core

Biological effluent treatment liquid preparation — bio-augmentation additive for effluent treatment systems



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PRODUCT DESCRIPTION

Summit Bio Core is a concentrated liquid biological effluent treatment preparation supplied by Summit Bridge Limited. It contains a concentrated blend of non-pathogenic, non-GMO environmental bacterial isolates in a buffered liquid medium with food-grade activation nutrients. Summit Bio Core is diluted 10:1 (ten parts clean water to one part product) prior to application. Formulated for dosing into aerobic and facultative wastewater and effluent treatment systems, it delivers a viable bacterial count of approximately 1×10^9 CFU/ml at point of manufacture — supporting rapid bio-augmentation, BOD₅/COD reduction, odour control, and improved system stability across a broad range of operating conditions.

Strain identity and safety confirmation. All strains are Bacillus species, identified by 16S rRNA sequence homology, with GRAS status, each confirmed negative for anthrax toxin and Bacillus cereus enterotoxin. Strains are produced under controlled monoseptic fermentation and supplied in spore form for shelf life, stability and robustness. Naturally occurring, non-GMO isolates; no animal-derived ingredients; food-grade components only.

KEY BENEFITS & PERFORMANCE CHARACTERISTICS

- Rapid bio-augmentation — germination typically within an hour of dosing, active growth within four; accelerates system establishment and recovery
- Measurable BOD₅ and COD reduction in aerobic and facultative systems
- Odour suppression through competitive microbial exclusion
- Non-hazardous, non-pathogenic, non-GMO — safe for operators and the environment
- CLP/GHS: not classified as hazardous (Regulation (EC) No 1272/2008)
- Compatible with all standard dosing pump and drip-feed systems
- Manufacturer stated operating range 10–80°C and pH 3.5–10; facultative through to fully anaerobic
- Spore-form consortium with a 24-month ambient shelf life — no cold chain required
- Supports compliance with effluent discharge consents and BOD/COD reduction targets

GENERAL CHARACTERISTICS

Property	Value	Property	Value
Appearance	Bluish liquid	Viable count (indicative)	$\sim 1 \times 10^9$ CFU/ml at manufacture
Odour	Naturally acidic, mild	Activation time	Germination typically within 1 hour of dosing; active growth within 4 hours (process-dependent)

Property	Value	Property	Value
pH (product)	4.80 ± 0.10	Temperature — manufacturer stated operating range	10–80°C; optimum 28°C
Density	1.000 g/ml ± 0.005	Temperature — Summit Bridge recommended operating window	Up to 45°C; optimum 25–35°C
Viscosity	13.20 cP	pH — manufacturer stated operating range	3.5–10; optimum 6.8
Solubility	Miscible in all proportions	pH — Summit Bridge recommended operating window	5.5–8.5
Flammability	Non-flammable	Dissolved oxygen	Facultative through to fully anaerobic — spores survive anaerobic conditions without growing; aerobic or facultative conditions for active growth
Dilution ratio	10:1 (water : product) before use	Shelf life	24 months from date of manufacture
Mixing water temperature	30–40°C for dilution	Storage temperature	10–25°C, sealed, dark — do not refrigerate

Manufacturer stated operating ranges are the ranges within which the manufacturer reports the consortium remains viable and active across its applications. Summit Bridge recommended operating windows are the conditions under which Summit Bridge specifies and supports a dosing regime without site-specific confirmation. Applications outside the recommended window are confirmed per asset.

CHEMICAL DESCRIPTION & APPLICATION

Chemical description	Biological effluent treatment liquid preparation containing non-pathogenic environmental bacterial isolates in a buffered liquid medium with food-grade activation nutrients. Supplied as a concentrate; dilute 10:1 with clean water before application.
Application	Bio-augmentation additive for aerobic and facultative wastewater and effluent treatment systems across municipal, industrial, food & beverage, hospitality, oil & gas, and agricultural sectors globally.
Indicative bacterial count	Approximately 1×10^9 CFU/ml at point of manufacture (strain-dependent)
CLP / GHS classification	Not classified as hazardous under Regulation (EC) No 1272/2008
REACH status	All components registered or exempt under Regulation (EC) No 1907/2006

APPLICATION INSTRUCTIONS — DOSAGE RATES BY SECTOR

Dosage rates are indicative, derived from the manufacturer's written guidance and standard biological treatment practice. Actual rates must be confirmed by Summit Bridge Limited prior to client recommendation.

Sector / System	Application Point	Concentration	Start-up Dose	Maintenance Dose	Frequency
Wastewater / Municipal	Activated sludge / aeration basin	1–5 ml/m ³ /day	5–10 ml/m ³ /day (Wks 1–4)	1–3 ml/m ³ /day	Daily; drip-feed via dosing pump preferred
Wastewater / Municipal	Lagoon / stabilisation pond	3–5 ml/m ³ total vol.	10 ml/m ³ (single dose)	2–5 ml/m ³ /week	Weekly broadcast; agitate if possible

Sector / System	Application Point	Concentration	Start-up Dose	Maintenance Dose	Frequency
Food & Beverage	Effluent holding tank (high BOD)	5–10 ml/m ³ /day	10–20 ml/m ³ /day (Wks 1–2)	5–8 ml/m ³ /day	Daily; dose at lowest flow (overnight)
Food & Beverage	Grease trap / fat interceptor	50–100 ml/1,000 L	100–200 ml per trap (priming)	50–100 ml/1,000 L/wk	Weekly; 4+ hrs contact time after dosing
Hospitality	FOG drain lines / kitchen drains	25–50 ml/drain/week	100 ml/drain at commissioning	25–50 ml/drain/week	Weekly overnight; no flush for 6 hrs
Oil & Gas / Industrial	Effluent treatment plant (hydrocarbon)	5–10 ml/m ³ /day	15–20 ml/m ³ /day (Wks 1–2)	5–10 ml/m ³ /day	Daily continuous; 2× during shock events

All dose rates above are expressed as volume of product before dilution. Dilute 10:1 — ten parts clean water to one part Summit Bio Core — using warm water (30–40°C) and mix thoroughly before application. Dosing pump connection recommended for continuous systems. Manufacturer's written guidance on the general regime: start-up at typically five times the maintenance rate, tuned down on measured performance to the maintenance floor (recommended minimum 1 litre per megalitre per day). The sector rates above sit inside that regime; the start-up period and rate for a specific asset are set by Summit Bridge from the findings report.

Packaging	Storage	Transport
Available in 1 L, 5 L, 20 L, and 200 L containers. Container type: HDPE with sealed cap. Custom packaging available for large-scale supply agreements — contact Summit Bridge Limited.	Store in a cool, dark environment at 10–25°C. Do not refrigerate. Keep container sealed when not in use. Keep away from direct sunlight and heat sources. Do not store alongside strong oxidising agents, chlorine-based disinfectants, or heavy-metal-containing compounds. Shelf life: 24 months from date of manufacture under recommended conditions.	Not classified as dangerous goods under ADR, RID, IMDG or IATA. No UN number assigned. No special precautions required. May be transported under standard commercial conditions by any mode. Marine pollutant: No.

SAFETY & REGULATORY COMPLIANCE

- Not classified as hazardous under CLP Regulation (EC) No 1272/2008
- REACH (EC) No 1907/2006: all components registered or exempt; no SVHC above threshold
- Biological agents (Directive 2000/54/EC): no hazard identified; organisms are non-pathogenic environmental isolates (non-GMO, BSL-1), confirmed negative for anthrax toxin and B. cereus enterotoxin
- Nitrile gloves and safety goggles recommended during dispensing. No respiratory protection required under normal conditions.
- For the full COSHH assessment refer to document SBG-COSHH-001 (Revision 3.0)

Operating notes and incompatibilities. Allow 24 hours between antibiotic or chemical biocide treatment of the system and dosing. Free chlorine at the dosing point should be below 0.5 mg/L; where residuals are higher, position dosing upstream of disinfection or neutralise before application. Do not mix product with strong acids (pH <3) or alkalis (pH >11) prior to application. Systems operating above the Summit Bridge recommended window (45°C): the manufacturer's stated range extends to 80°C; confirm the application with Summit Bridge before dosing. Not for potable water systems.

Contact Summit Bridge Limited | Limassol, Cyprus | www.summitbridge-global.com

Classification Notice: This document is confidential and prepared exclusively for distribution by Summit Bridge Limited. All product descriptions comply with the Summit Bridge Terminology Guide (April 2026). Biological preparations are biological effluent treatment preparations containing non-pathogenic environmental bacterial isolates. For full safety data refer to SBG-COSHH-001. Summit Bridge Limited accepts no liability for misuse of this document or the products described herein.