STP SOLUPAK

A highly active natural microbial additive for start-up, maintenance and toxic shock in biological sewage treatment plants and marine sanitation devices. Ensures the system operates at peak efficiency with high BOD reduction, short hydraulic retention times and low residual sludge. It will also improve operations and reduce odours on vessels operating sewage holding tanks.

Product Description

STP Solupak is a highly concentrated, all-in-one biological solution designed to optimize the performance of marine sewage treatment systems. It improves sludge settlement, promotes floc formation, and restores microbial health after overload or toxic shock. Composed of 100% active microbial cultures, it significantly enhances the biodegradation of organic waste such as paper, detergents, fats, oils, and grease. Enriched with a balanced C:N macronutrient ratio (20:1), seaweed-based micronutrients, and a blend of essential enzymes, it ensures robust microbial growth even in low-flow or stressed conditions. It also provides resistance to chlorine up to 20 ppm, additional protection up to 100 ppm via chlorine quenchers, and includes agents that bind heavy metals to safeguard biomass activity. Supplied in convenient, cold-water soluble 100g PVA sachets.

Key Features

- 100% active microbial blend for effective biodegradation of sewage waste
- Enhances sludge settlement and floc formation in treatment systems
- Chlorine resistance up to 20 ppm, with protection up to 100 ppm
- Contains essential enzymes: lipase, amylase, protease, and cellulase
- Balanced C:N ratio (20:1) to support microbial growth during low-flow
- Micronutrients delivered via slow-release seaweed extract
- Neutralizes heavy metals to protect microbial respiratory function
- Convenient 100g cold water-soluble PVA sachets for easy dosing

Application Area

STP Solupak is suitable for use in all Type II and Type III MSD's (see below). Ships that operate Type II systems will often encounter periods of low usage and so low flow to the treatment plant. In this case, the biomass may starve and wash-out in these cases STP Solupak can be used to maintain the system until flow is restored. Conversely, the system may be overloaded by high volume or high influent BOD, in which case STP Solupak will be used to efficiently deal with this extra load. Occasionally, a toxic shock may be encountered where a biocide or poisonous chemical enters the system (for example, bleach, laundry detergents, harsh cleaner) in which case STP Solupak can be used as a system restore solution after the toxic shock has passed.

Any loss of biological activity is often characterized by development of mal odours which may be emitted from toilets and drains. Ships that operate Type III systems or other holding tanks can also use STP Solupak to reduce malodour, prevent the build-up of deposits floating and settled sludge in holding tanks, vacuum tanks and associated equipment.

Directions for USE

MSDs are rated per person equivalent (PE) to achieve satisfactory performance. STP Solupak is formulated based on the average daily calorie intake of 3000 kcal/person. Application rate is adjusted according to ship type and usage.

Example:

For a crew of 25 persons:

- **Start-up dose:** 4 sachets, added directly to the toilet (no pre-mixing required)
- **Weekly maintenance:** 1 sachet

Size of MSD Reactor System	Start-up dose	Maintenance (Weekly Dose)	Total requirement for start-up and 12 months' operation
1-5m^3	4 sachets	1 sachet	56 sachets (less than 1 bucket a year)
5-8m^3	8 sachets	2 sachets	60 sachets (less than 1 bucket a year)
8-10m^3	16 sachets	2 sachets	120 sachets (less than 2 bucket a year)
10m^3+	40 sachets	3 sachets	196 sachets (2 bucket a year)

Additional Dosing Guidelines

In case of a toxic shock, overload, or planned system rest, STP Solupak can be used to re-establish biological activity quickly.

Suggested Dosage:

- **Start-Up:** 2–5 × 100g per 1 m^3/day for 3 days
- **Maintenance:** 1 × 100g per 1 m^3/day as required (depends on load and influent BOD)
- **Upset Recovery / Toxic Shock:** 5 × 100g per 1 m^3/day as required

Notes

* Per sewage plant if multiple MSD units are present

** For volumes >20 litres, use multiple mixtures to avoid manual handling issues

*** Based on BOD load of 50–80g/person/day under regular use, average BOD 200–500 mg/L

Features & Benifits

- Selected bacteria effectively break down organic materials in sewage waste.
- Active across wide pH and temperature ranges.
- Resistant to chlorine up to 20 ppm.
- Includes chlorine quenchers for protection up to 100 ppm.
- Heavy metal binding agent to detoxify biomass.
- Performs in low-oxygen conditions.
- Contains free enzymes to stimulate bacterial action.
- Fast-acting strains ideal for start-up, recovery, and maintenance.
- Maintains high MLVSS for reduced BOD in sewage treatment.
- Builds chemical-resistant biomass.
- Controls and reduces malodors.
- Minimizes sludge build-up in Type II & III systems.
- Easy dosing in various pack sizes, suitable for ships/platforms of all sizes.

Disclaimer

The information provided in this Technical Data Sheet is accurate at the date of issue and should be used for indicative purposes only. Please refer to your Company Representative for specific User instructions as to how these relate to your usage requirements. Please note that GNC Marine is not liable for claims, damages, costs or expenses of any kind arising from the mishandling of the product or changes that might occur during the handling, storage and application conditions provided by any third party who does not follow the minimum requirements defined in the SDS. Please refer to the SDS for further information regarding the handling, storage and application procedures for the product

Product Information

Packaging: 10 kg
Product Code: 80004-1

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Contact Info
+45 88441716
gnc@gncmarine.com
www.gncmarine.com