

RBC 500

A special blend of Bacteria and fungi capable of degrading plant fibres

Overview

Pulp & Paper (BOD/COD, cellulose, ink)

Used to degrade pulping wastes including high BOD, starchy wastes, tall oils, pine soaps, liquor spills, and cellulose. Particularly effective in kraft pulp and paper mills to overcome such adversities as periods of high influent loading, system start-up after mill shutdown, and unfavourable temperature conditions. This product can consistently improve BOD reduction and can assist in lignin degradation.

Food Processing (starch, cellulose, protein, BOD/COD)

Ideally suited to treatment of fruit and vegetable processing, brewery and winery wastes and to overcome a variety of problems such as high influent loadings, system start-up and unfavourable temperature conditions. The product comprises microbial strains that can degrade starches, organic acids, vegetable fibres, sugars, alcohols and turpines. This product can also prevent hydrogen sulphide production if used in aeration basins.

Technical Description

a special blend of bacterial cultures selected and adapted to improve their ability to degrade a wide range of foaming agents. It has been used successfully in the petrochemical, textile, textile chemical, and resin industries to combat foaming due to non-ionic and ionic detergents and ethoxylated phenols. *Nocardia* bacteria, some of which can generate a biosurfactant that is generally unaffected by commercial defoamers, can be controlled.

Key Features and Advantages:

- Can live in salinities ranging from 1-10%.
- Performs within a broad temperature range from between 4°C to 35°C.
- **RBC 500** can degrade a wide range of alkyl, aromatic and substituted hydrocarbons.
- **RBC 500** utilizes alkanes, a type of hydrocarbon in its metabolic process as its source of energy to break down oil into harmless compounds.
- **RBC 500** becomes dominant and can consume a wider variety of alkanes.
- The bacteria cultures in RBC 400 produce a bio-surfactant.
- **RBC 500** is capable of degrading oil in salt water or saline environments.
- Improves maximum rates of organic removal as measured by BOD, COD and TOC.



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- Provides higher bacterial growth to improve stability in response to organic overloads.
- Reduces toxicity to autotrophic nitrifiers to allow the initiation and maintenance of high rates of biological ammonia removal in waste water applications
- Provides the ability to degrade a wide spectrum of recalcitrant industrial chemicals.
- Improves the waste treatment system stability.
- Enhances flocculation in activated sludge.
- Facilitates rapid recovery from load-related shock caused by high COD loading and flows as well as toxic upsets.
- Reduces the impact of production increases or changes in effluent quality.
- Enables more rapid plant, seasonal, or maintenance start-up.

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| Physical Aspect: | brown free-flowing powder |
| Packaging: | 100 g water-soluble pouches / 10kg plastic pail 10Kg bulk powder |
| Stability: | 12 months* |
| Product pH Range: | 5.5 to 7.0 |
| Product Density: | 0.7 - 0.8 g/cm ³ |
| Moisture Content: | Below 15% |
| Nutrient Content: | Biological nutrients and stimulants |
| Bacterial Concentration: | min 5x10 ⁹ CFU per gram |
| Usage Conditions: | Do not freeze. Take care not to inhale dusts. Avoid excessive skin contact. Refer to SDS |

Applications:

RBC 500 can be used for multiple applications from waste water and leachate treatments to complex soil remediation projects.

RBC 500 can be used in the following areas:

- Soil remediation
- Waste water treatment plants
- Facultative lagoons
- Leachate treatments
- Holding tanks
- Aerated lagoons
- Collection systems and basins
- Waterways

Product preparation:



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RBC 500 may be added directly to the waste influent stream or aerated basin. For toxic wastes or short retention times, re-hydration for between 30 to 90 minutes prior to its addition to a waste system is recommended, using 9L of water per 500g of RBC 500.

For best results, the make-up water temperature range should be between 21°C and 31°C.

Optimum conditions for use:

The bacteria in **RBC 500** perform within a pH range of between 6.5 and 8.5, with optimum activity near a pH of 7.0. Temperature affects the growth rate of the bacterial population and activity improves with a temperature of between 30°C and 37°C. No appreciable activity can be expected below 5°C and above 55°C.

Storage and handling:

- Store in a dry place at room temperature. The recommended storage temperature is within a range of 1°C and 23°C.
- Avoid excessive inhalation.
- Avoid eye contact.
- Wash hands thoroughly with warm, soapy water after handling.

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