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Rethink Tomorrow

GWM 2010

GENERAL WASTEWATER MICROBES

Application Sheet

GWM 2010 is a biological formulation of beneficial microorganisms specially selected for COD degradation and improved plant stability in municipal wastewater applications. It is particularly effective for municipal plants that receive a complex mixture of commercial and industrial waste streams.

Benefits

Municipal plants often receive industrial flows that add complexity to the treatment strategy. Industrial wastewater can contribute a wide range of constituents that need to be treated, and often municipal plants do not have the microbial diversity required to quickly acclimate to the industrial components of the flow. When the microbial community is unable to degrade certain components, COD removal efficiency goes down, and some constituents may pass through the plant.

Maintaining a healthy microbial community with GWM 2010 improves plant efficiency by improving COD degradation. As regulations for water treatment have grown increasingly strict and penalties for permit violations have increased, it has become more important to be able to efficiently remove COD and toxic substances from the effluent.

Performance

GWM 2010 contains a broad range of microorganisms to handle complex waste streams. The microorganisms in GWM 2010 can handle pollutants such as COD, hydrocarbons, FOG, and others. This allows a plant to handle fluctuating influent qualities that can come from many different sources.

Start-ups and upset recovery programs are a crucial aspect of operations. When new plants come on line or when regular treatment is disrupted, the goal is to obtain a healthy sludge and a high-quality effluent in the shortest possible time. It is possible to re-establish good treatment through operational changes alone, but this may take weeks to accomplish. Bioaugmentation for start-ups and recovery significantly reduces start-up and recovery times, provides reassurance that the newly developing sludge will be healthy and active, and is widely accepted among wastewater professionals.

Start-up with a typical wastewater system can take up to 3 weeks to reach steady-state operations. By applying a starter culture proven to grow rapidly and accelerate the formation of dense flocs, operators can significantly reduce the risk of delayed start-up and the passing of BOD into the receiving streams.

Recommended use

GWM 2010 can be used for multiple applications, including daily dosing to maintain the microbial community's health, increased dosing during high loading or upsets, and seeding during plant start-ups.

GWM 2010 can be added daily directly to the aerobic treatment units.

The microorganisms in GWM 2010 perform within the pH range 6.0–9.0, with an optimum near 7.0. Wastewater temperature affects activity, with an approximate doubling in maximum growth rate for each 10 °C (18 °F) increase in temperature to an approximate upper limit of 45 °C (113 °F). Very low activity can be expected below 10 °C (50 °F).

The dosage rate for GWM 2010 is dependent upon the volume of the biological reactor and the BOD or COD loading in the system. During the initial seeding period, an increased dosage is used to quickly establish the microorganisms in the system. When the microbial community is properly grown, regular dosing is necessary to maintain an accelerated level of biological activity and to continue to minimize upsets.

Product characteristics

GWM 2010 is available as a dry tan powder.

Safety, handling, and storage

Store in a cool, dry place. Avoid inhalation of dusts. Wash hands thoroughly with soap and water after handling. Avoid contact with eyes.

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