



ENZYTTREAT PLUS

An effective efficiency booster for fermentation with recycled streams

Distilleries operating under **Zero Liquid Discharge (ZLD)** systems often recycle process streams such as spent lees, RO permeate, process condensate, spent wash, or thin slops to reduce freshwater consumption and meet environmental regulations. However, recycling these streams can introduce undesirable microorganisms and chemical contaminants into the fermentation process leading to loss of fermentable sugars higher volatile acidity, higher stress and reduced fermentation efficiency, ultimately impacting alcohol yield and process productivity.

Enzytreat Plus is a specialized liquid blend developed for application in **molasses and grain-based distilleries**. The formulation is designed to control microbial contamination introduced through recycled wastewater streams while supporting efficient fermentation and better process stability under ZLD operations.

Mode of Action

Enzytreat Plus works through a targeted mechanism that controls microbial contamination and supports optimum fermentation pathways under stressed conditions. It helps maintain a balanced fermentation environment by reducing contamination-related metabolic activity. Controls the accumulation of volatile acids (VA) in yeast cells and other undesirable by-products during fermentation.

Product Key Benefits

- Controls bacterial contamination and prevents loss of fermentable sugars
- Helps alleviate stress due to volatile acids during fermentation
- Supports efficient fermentation when **recycling process condensate and wastewater streams**
- Helps prevent formation of undesirable by-products, improving **ENA/RS spirit quality**
- Enables effective operation under **Zero Liquid Discharge (ZLD)** conditions

Product Application

Enzytreat Plus is recommended for **molasses and grain-based distilleries implementing wastewater recycling and ZLD operations.**

The product can be applied in the following ways:

- Added directly into **tanks storing recycled wastewater streams**
- Added directly into the **fermenter during filling with waste streams**

Operational Conditions

- Effective pH Range: **4 – 10**
- Effective Temperature Range: **20 – 80°C**

Dosage

- **10 – 25 ppm** when added to wastewater storage tanks
- **5 – 10 ppm** when added directly into fermenters during waste stream filling

Product Characteristics

- Occurrence: Liquid
- Appearance: White

Shelf Life

- Minimum **12 months** when stored below **30°C**

Product Packaging

- Available in **30 kg HDPE drums**

Product Handling

- Inhalation of aerosols may cause sensitization or allergic reactions in susceptible individuals.
- Prolonged contact may cause irritation to **skin, eyes, and mucous membranes.**
- Aerosols may form if the product is splashed or vigorously stirred.
- Spilled product may dry and create dust; spilled material should be flushed with water and splashing should be avoided.
- Use appropriate **protective clothing, gloves, and eye/face protection** while handling the product.
- Contaminated clothing should be washed thoroughly before reuse.
- Refer to the **MSDS supplied with the product** for detailed safety instructions.



ISO 9001:2015 Certified | FSSC 22000 Certified

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