



FERMENTATION EFFICIENCY BOOSTER

Enzyme-based fermentation efficiency boosters with antimicrobial action for molasses distilleries

Fermentation in molasses distilleries is often impacted by bacterial contamination such as Bacillus, lactic acid, and acetic acid bacteria, which reduce fermentation efficiency, increase by-product formation, and lower alcohol yield. Controlling these contaminants under varying process conditions is a major industry challenge.

It is advanced enzyme-based formulations combined with antimicrobial compounds designed to control a broad spectrum of bacterial contamination. These products are optimized to improve fermentation efficiency while maintaining yeast performance across diverse operating conditions.

Mode of Action

The products inhibit bacterial cell proliferation by disrupting protein transport mechanisms and interfering with bacterial cell signalling pathways. They arrest bacterial metabolic processes, disturb proton motive force, and cause ion imbalance, effectively controlling contamination without affecting yeast activity.

Product Key Benefits

- 90% antimicrobial efficacy
- Effective against Bacillus, lactic acid, and acetic acid bacteria
- Improves yeast cell proliferation
- Reduces fermentation time
- Enhances fermentation efficiency
- Minimizes by-product formation
- Enables better process control
- No adverse effect on yeast metabolism
- Effective at low dosage levels

Product Application

- **Application Area:** Molasses fermentation (pre-fermentation and fermentation stages)
- **Usage:** Added directly to fermentation wash or process stream

Operational Conditions

- Temperature: **30 – 37 °C**
- pH: **4 – 7**

Dosage

- 5–7 ppm on fermentation wash (PF) volume

Product Characteristics

- Composition: Enzyme-based powder formulation with antimicrobial compounds
- Function: Controls bacterial contamination while supporting fermentation
- Compatibility: Safe for yeast growth and metabolism

Product Packaging

- 1 Kg pack - 25 kg HDPE drums

Product Shelf Life

- 2 years

Product Handling

- Enzymes may cause sensitization or allergic reactions upon inhalation
- Avoid formation and inhalation of aerosols or dust
- May cause irritation to skin, eyes, and mucous membranes
- Avoid splashing; spilled product should be flushed with water carefully
- Dried residues should be handled to prevent dust formation
- Use protective clothing, gloves, and eye/face protection
- Wash contaminated clothing thoroughly
- Follow MSDS guidelines for detailed safety instructions



ISO 9001:2015 Certified | FSC 22000 Certified

CORPORATE OFFICE:

240, Functional Industrial Estate, Patparganj,
Delhi - 110092, India

Phone: +91 11 49867313 / 49867314

Email: info@thecatalystsgroup.com

Web: www.thecatalystsgroup.com

Certifications:

