



OXZYTREAT

Advanced catalytic oxidation technology for treatment and reuse of distillery and sugar mill process condensate.

MEE condensate generated from raw spent wash in ethanol distilleries contains high organic load and toxic constituents that limit direct reuse or discharge. Efficient treatment solutions are required to reduce COD and help achieve zero liquid discharge targets.

OxyTreat is based on chemical oxidation using a designed combination of catalysts and oxidizing agents. The process enables degradation of organic pollutants and conversion of toxic compounds into relatively harmless forms, supporting reuse of treated condensate.

Mode of Action

Upon addition along with hydrogen peroxide and aeration, catalytic reactions generate oxidizing species that break down complex organic compounds present in condensate. This results in COD reduction and improved water quality suitable for further polishing and reuse.

Product Key Benefits

- Reduces COD by degrading organic contaminants
- Converts toxic compounds into less harmful forms
- Does not introduce hazardous secondary substances
- Faster and less capital-intensive treatment approach
- Supports compliance with zero liquid discharge requirements
- Enables recycling of treated condensate as process water
- Helps to increase the pH

Product Application

Applicable for treatment of MEE condensate from sugar mills, molasses and grain-based distilleries. Process involves collection in reaction tank, addition of catalyst and hydrogen peroxide, aeration using micro diffusers and final polishing through sand filtration.

Operational Conditions

- COD <7000 ppm
- pH 3.0–4.5
- VA <2000 ppm
- TDS <200 ppm
- Temperature 50–70°C
- Retention time 6–12 hours
- Aeration 0.2–0.5 vvm

Dosage

- OxzyTreat: 25–50 ppm
- Hydrogen peroxide (50%): 300–500 ppm

Product Characteristics

- White powder with mild acidic smell, bulk density 0.8 ± 0.2 and pH 2–3 (5% solution at 20°C).

Product Packaging

- Standard 25 kg HDPE containers (custom possible).

Product Shelf Life

- More than 12 months under dry ventilated storage.

Product Handling

- Use PPE (gloves, safety goggles, masks etc.) during handling.
- Avoid contact and inhalation.
- Store tightly closed in cool dry conditions and follow MSDS safety guidance.



ISO 9001:2015 Certified | FSC 22000 Certified

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