

OxzyTreat

OxzyTreat is an advanced chemical oxidation-based process for the treatment of Raw MEE condensate in molasses-based ethanol distilleries. The process uses a unique formulation of broad-spectrum advanced oxidizing agents.

BENEFICIARY FUNCTIONS

- Reduces a variety of recalcitrant organic compounds present in the condensate, including some that are resistant to natural, biological or enzymatic degradation
- Toxic compounds are converted into harmless compounds, using a designed chemical reaction mechanism
- Does not introduce any new hazardous substances into the water
- Faster and less capital-intensive process as compared to other chemical and biological treatment (CPU)
- Effectively eliminates organic compounds in the condensate, rather than collecting or transferring pollutants into another phase (no by-product or waste generation)
- Helping the industry to achieve the mandate of zero liquid discharge

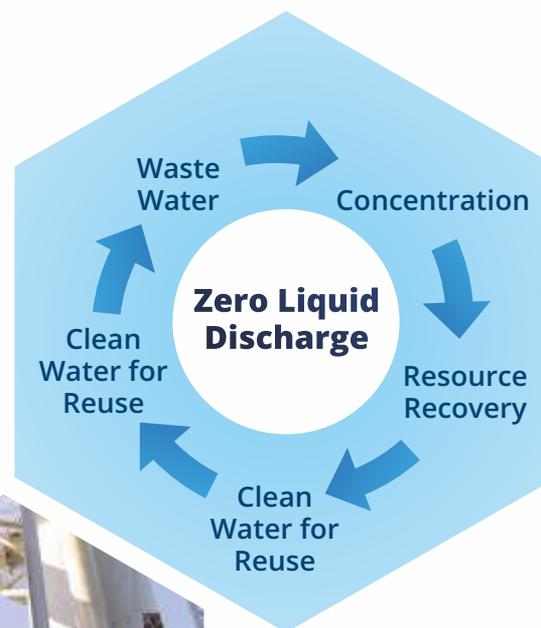


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PRODUCT APPLICATION

OxzyTreat is used for the treatment of MEE or process condensate generated from raw spent wash in molasses-based distilleries.

The entire process is carried out in the following simple steps:

- Collection of the condensate in an aeration tank
- Addition of specially formulated oxidizing agents namely OxzyTreat A and OxzyTreat B to the condensate, according to the recommended procedure
- Providing aeration using customized spargers. The combined effect of OxzyTreat A+B and aeration under optimum conditions reduces the COD to the desired value.
- Final polishing of the treated condensate using sand filtration. This removes any suspended particles formed during Step 1 and 2.
- Using the treated condensate as replacement of raw water for molasses dilution and fermentation

The design of the equipment (aeration tank, dosing systems and sand filtration) for carrying out OxzyTreat process is provided based on pre-trial data analysis and site visit.

The process can be applied to raw spent wash condensate in molasses based distilleries having the following common physio-chemical characteristics:

COD:< 7000 ppm

pH: 3.0 - 4.5

Ammonia-nitrogen:< 100 ppm

OxyTreat



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Initial COD	COD reduction	OxyTreat A + B combined dose	Reaction Time	Aeration	Temperature
4000 ppm	~60%	700-800 ppm	6 hours	0.2vvm	40-70 °C
6000 ppm	~60%	800-900 ppm	6 hours	0.2vvm	40-70 °C
8000 ppm	~60%	1100-1200 ppm	6 hours	0.2vvm	55-60 °C

PRODUCT CHARACTERISTICS

OxyTreat B

Product Composition:	A blend of catalysts and advanced oxidizers
Appearance:	Colourless clear liquid
Odour:	Odourless
Specific Gravity @20°C:	1.15±0.1 g/cm ³
pH @20°C:	1.5 - 3.0

OxyTreat A

Product Composition:	Combination of catalysts and oxidizers
Appearance:	White powder
Odour:	Mildly acidic smell
Bulk Density @20°C:	0.8±0.2
pH @20°C (5% solution):	2.0 - 3.0

PACKAGING

OxyTreat A:	25.0 kg HDPE containers
OxyTreat B:	60.0 kg HDPE containers
Packaging may change based on requirement	

PRODUCT STORAGE

The product is stable for more than 12 months when stored at 30°C with proper ventilation under dry and covered conditions in tightly closed containers.

PRODUCT HANDLING

- Use of PPEs (gloves, masks, goggles) while handling is highly recommended as product is corrosive in nature.
- Avoid contact with eyes, skin, and clothing. Use adequate ventilation to keep airborne concentrations low.
- Wash thoroughly with water and soap in case of any contact.
- Keep container tightly closed. Avoid ingestion and inhalation.
- Keep the product away from contact with water, moist air and steam. Keep in a dry, cool and covered place only.
- MSDS is supplied with the product. Please follow MSDS safety instructions for more details.



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