GFzyme-Katalase™ S 350L

Catalase

Catalase is an enzyme that presents in the cells of plants, animals and aerobic (oxygen requiring) bacteria. It promotes the conversion of hydrogen peroxide, a powerful and harmful oxidizing agent, into water and molecular oxygen.

It is widely used for removal of H_2O_2 in textile industry, semiconductor and HPPO factory. It saves time and energy and is environmental-friendly.

$$2H_2O_2 \longrightarrow 2H_2O + O_2$$

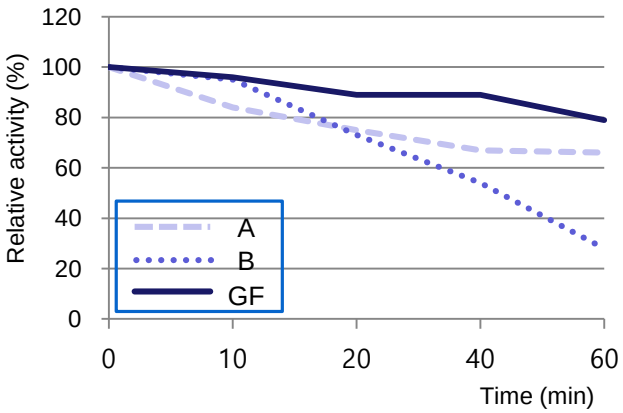
$$H_2O_2 + RH_2 \longrightarrow 2H_2O + R$$

Benefits for the wastewater treatment industry

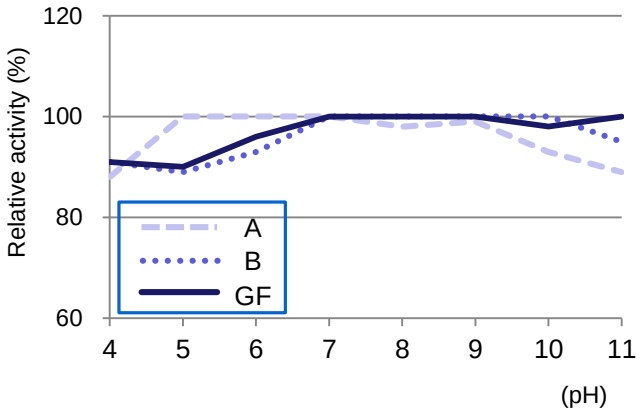
- Removal of residual hydrogen peroxide (H_2O_2)
- Reduction of water consumption
- Reduction of energy and time consumption
- Eco-friendly and bio-degradable

Stability test for temperature and pH

Heat Stability at 70℃



pH Stability (after 1 hour)



Characteristics

- Source: Thermostable Fungi
- Activity: > 350,000 unit/ml (at pH 7.0)
- Appearance: brown to dark brown liquid
- pH: 5.0 (±1.0)

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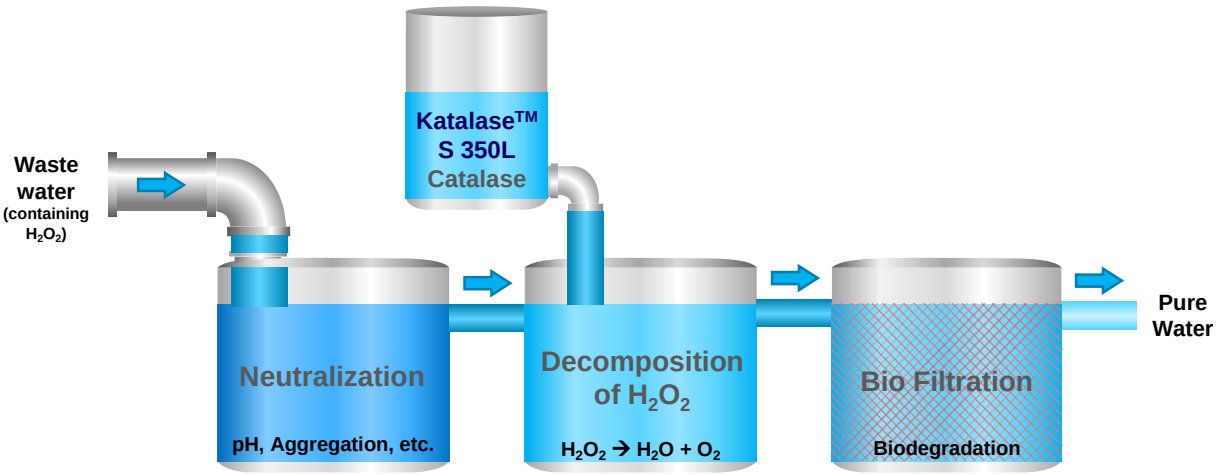
Recommendation of operational condition

- Stable pH range: pH 4.0 ~ 11.0
- Optimum pH: pH 6.0 ~ 8.0
- Temperature stability: stable at 70℃ for one hour
- Optimum temperature: 35~55℃
- Process time: 5~20 minutes
- Dosage: 0.01~0.05 g/L

Guideline for the wastewater treatment

- Fill the bath with Katalase™ S 350L instead of chemical catalyst
- After neutralizing waste water, put Katalase™ S 350L in the bath containing wastewater
- After decomposition of hydrogen peroxide(H_2O_2), the catalase in wastewater is bio-degraded by microorganisms in bio-filter



Benefits of enzyme process

- Applicable to existing facility without additional equipment
- No additional treatment required for chemical catalysts (enzyme is bio-degraded by microorganism in existing bio-filter)

Package and Storage

- Package unit: 225 kg drum
- Storage: avoid a direct ray of light and keep cool

Expiry date

- Katalase™ S 350L : 12 months

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