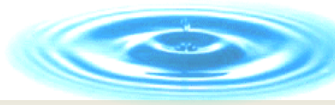


HYDROGEN PEROXIDE DECOMPOSER



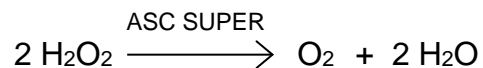
ASC SUPER 25



MGC Advance co.,Ltd.

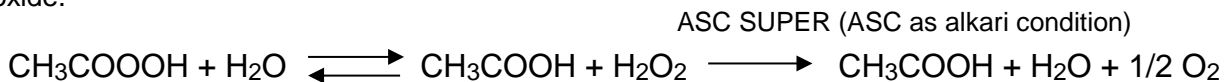
◆ What is ASC SUPER ?

ASC SUPER is a hydrogen peroxide decomposing agent, consisting from the enzyme that decomposes hydrogen peroxide to harmless water and oxygen. Enzyme acts as a biocatalytic promoter, is made by fermentation and is an environment-friendly product.



Peroxyacetic acid, utilized in the sterilization of food-packages and medical bags, is a solution under equilibrium conditions between peroxyacetic acid and hydrogen peroxide.

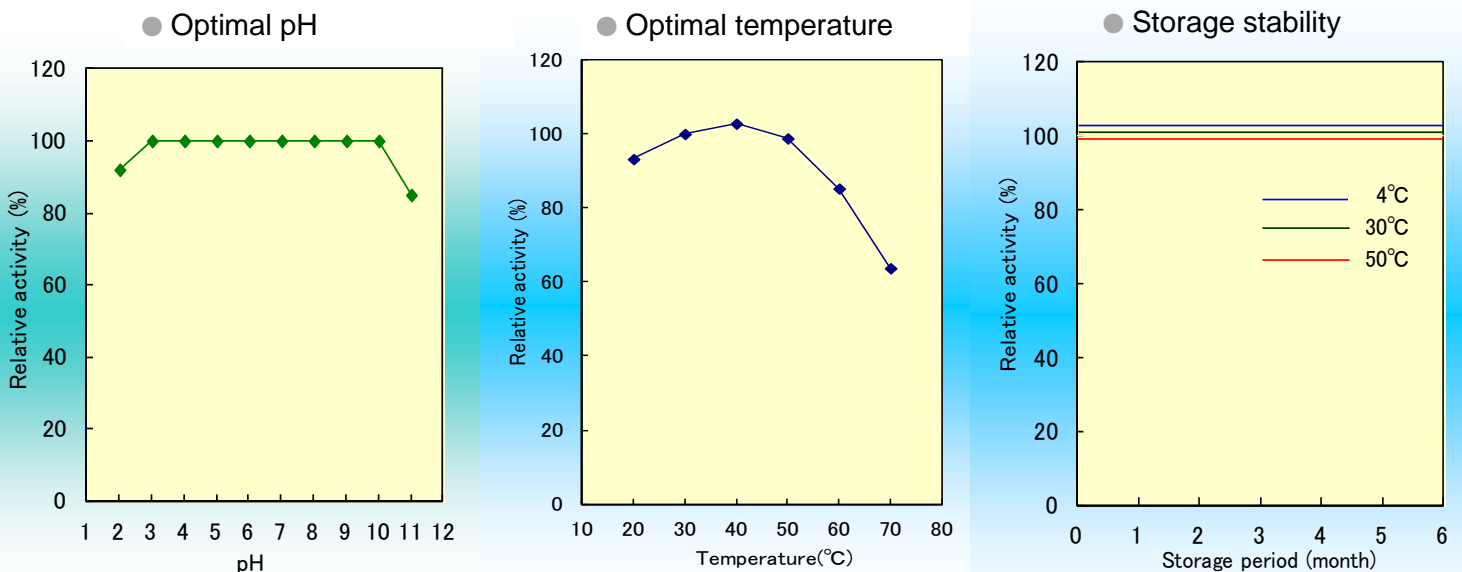
ASC SUPER secondarily decomposes peroxyacetic acid to acetic acid, water and oxygen gas via hydrogen peroxide.



The treatment method of the waste water containing peroxyacetic acid by hydrogen peroxide decomposing enzyme is our original techniques.

◆ High performance of ASC SUPER 25

ASC SUPER is an excellent hydrogen peroxide decomposing agent that has a heat- and pH- tolerance, and storage stability. Therefore, it has a wide range of applications in the industrial use, and moreover, it is possible to decompose hydrogen peroxide with a small amount of ASC SUPER 25.



◆ **General properties and Safety data**

Appearance	Light brownish liquid
Odor	Slight odor of alcohol
pH	5.5 – 7.5
Solubility	Soluble in water at any rate
Acute toxicity	
	Acute oral LD50 (rat) - more than 2,000 mg/kg

◆ **Aim of ASC SUPER 25 addition volume**
(approximation)

H ₂ O ₂ conc. (%)	Reaction Time / Addition volume of AS-25		
	15 min	30 min	60 min
3.0 %	0.80 L/m ³	0.70 L/m ³	0.60 L/m ³
1.0 %	0.60 L/m ³	0.50 L/m ³	0.40 L/m ³
0.1 %	0.25 L/m ³	0.20 L/m ³	0.15 L/m ³

◆ **Application of ASC SUPER 25**

in water and wastes fields

- 1) Make sure that the concentration of hydrogen peroxide is less than 5% (to avoid an abnormal generating heating and bubbling).
- 2) Make sure that pH and temperature is within the limits.
- 3) Add adequate volume of ASC SUPER 25 to waste water with stirring.
- 4) Have a reaction time sufficiently (more than 30 min).

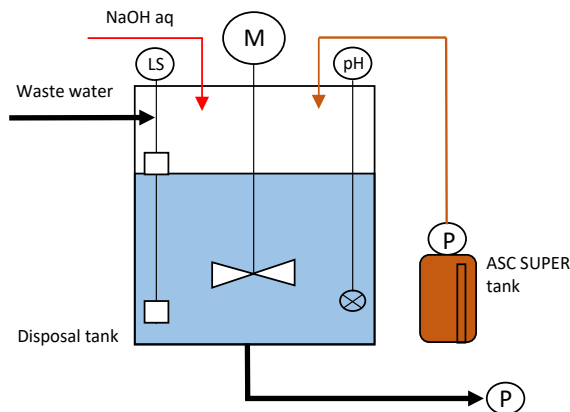


Figure Outline of flow of ASC SUPER in wastewater treatment

◆ **Waste water treatment in semiconductor plant**

Hydrogen peroxide is used as cleaning agent in semiconductor or beverage plant. However, this hydrogen peroxide often causes following troubles in waste water.

(a) Source of COD (Chemical Oxygen Demand)

Hydrogen peroxide is liable to be broken down using potassium permanganate and the following chemical reaction create what is measured in the laboratory as the Chemical oxygen demand (COD).

(b) Cause of Flocculate-Float

Hydrogen peroxide is gradually decomposed by itself with generating oxygen bubbles in waste water sedimentation tank. In the sedimentation tank, this oxygen bubble makes the flocculate-float. Hydrogen peroxide also attacks polymer coagulants and destroys the flocculate.

(c) Damage to Biological Treatment Process

As hydrogen peroxide is widely used as a washing and sterilization reagent, it is harmful to biological treatment (activated sludge) at high concentration.

Therefore, it is necessary that hydrogen peroxide is decomposed to avoid such troubles.

★ **Storage**

Store with an airtight container

★ **Packages**

- 1,000 kg container
- 200 kg drum
- 20 kg poly can
- 18 kg atron can
- 1 kg pet

Read SDS (Safety Data Sheet) before use.



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