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# **At RICKMAN**

**We create defoamer  
chemistry for a better and  
more sustainable future.**

# RICKMAN

Rickman was found in 2013, engaged in production, research and development, sales and service of defoamer. The comprehensive annual capacity can reach 30,000 tons. These products are widely used in pulp and paper, textile, industrial water treatment, paint and ink, oil and gas, agriculture, food, fermentation, industrial cleaning, metal processing and other fields.



At RICKMAN, we create defoamer chemistry for a better and more sustainable future. We believe that our mission is to work closely with our customers, providing them with antifoaming agent solutions enable them to deliver their potential.

**01**

## **Our Purpose**

To solve foam problem and improve efficiency through antifoam solutions.

**02**

## **Our Vision**

To be the global leader in antifoam innovation and build a safer, healthier, more sustainable world.

**03**

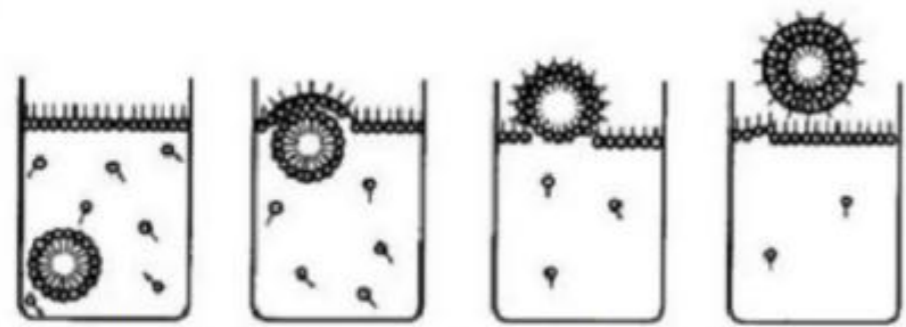
## **Mission**

We strive to build a better and more sustainable world with our partners by solving chemistry problems with the right technology, experience and team.

# Defoamers and Antifoams

## Classifications of foam

- According to the life of the foam, it can be divided into "short foam" with a life span of a few seconds and "durable foam" that can maintain a few days without breaking under the condition of no interference;
- According to the balance between the force of foam generation and foam breaking, it can be divided into "unstable foam" that is constantly approaching the equilibrium state and "stable foam" that is hindered in the equilibrium process;
- According to the aggregation, it can be divided into "bubble dispersion system" with more liquid and less gas and "foam" with more gas and less liquid.



The rise of foaming in a surface activator

## Generation Mechanism and Stability of Foam

Analysis of factors affecting the stability of foam :

(1) Low surface tension.

The lower the surface tension, the easier it is to form foam ;

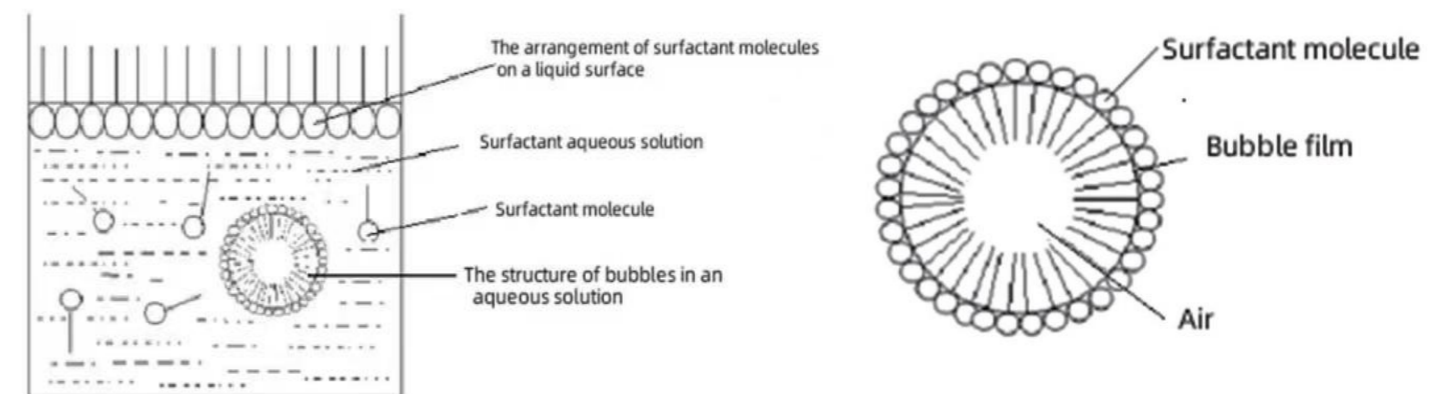
(2) Concentration of surfactants.

The higher concentration of surfactants, the more it accumulates on the surface of the foam, and the stronger the membrane ;

(3) Size of foam itself.

According to the formula  $T=K/D^2$ , T is the life of foam; D is the average diameter of foam; K is the correction coefficient.

As can be seen from the formula, the smaller the foam, the longer the life of the foam, the higher the stability.



## What is foam?

Bubbles and foams are generated by surface action.

Due to the action of surface tension.

The membrane contracts into a ball, forming a bubble. Because of the lifting force, bubbles rise to the liquid surface. When a large amount of bubbles gather on the surface, a foam layer is formed.

# Defoamer Solutions for

## Construction and Building



**RK-1210S** is a polydimethylsiloxane based silicone defoamer with good compatibility in polycarboxylate superplasticizer, bottle cleaning and water treatment.

**RK-15A** is a water based antifoam, acted high defoaming performance in construction, industrial cleaning and effluent industry.

**RK-800P** is designed by special polyether material to used in concrete, gypsum, asbestos tile, concrete admixture additives and reverse osmosis RO membrane and landfill leachate etc.

**RK-600P** is a non-silicone based defoamer with 100% active content.

Additives , material and stirred speed always lead to the foam appearance in construction. If the foam cannot disappear, the film shrinkage, and pinhole will be caused, which affects the quality and smooth appearance. Therefore, Rickman defoamers play an important role for solving foam questions.

- Cement mortar
- Concrete
- Asbestos tile
- Fiber cement
- Gypsum
- Diatom ooze
- Polycarboxylate superplasticizer
- Adhesives



**RK-04P** is a solid type foam control agent and works effectively in oil drilling, cement mortar, dry-mixed mortar, self-leveling cement and concrete.

**RK-104P** is a powder defoamer with great antifoaming and long-term foam control performance. It's widely used in petrochemical, and building materials.

**RK-07P** is a silicone based powder defoamer, easy to disperse in water and used in building material, putty powder, cement , adhesive, textile industry and industrial cleaning.

**RK-980P** is a defoamer liquid based on polyether and mainly used in construction industry.