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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 andservice of defoamer. The comprehensive annual capacity can reach 30,000 tons. These productsare 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

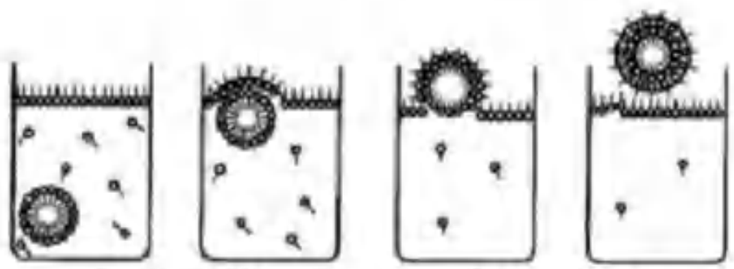
Mission

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 ;

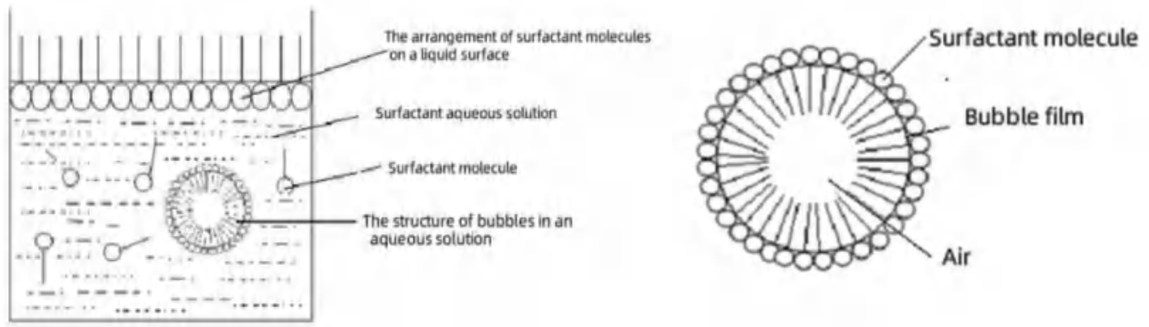
(2) Concentration of surfactants.

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.

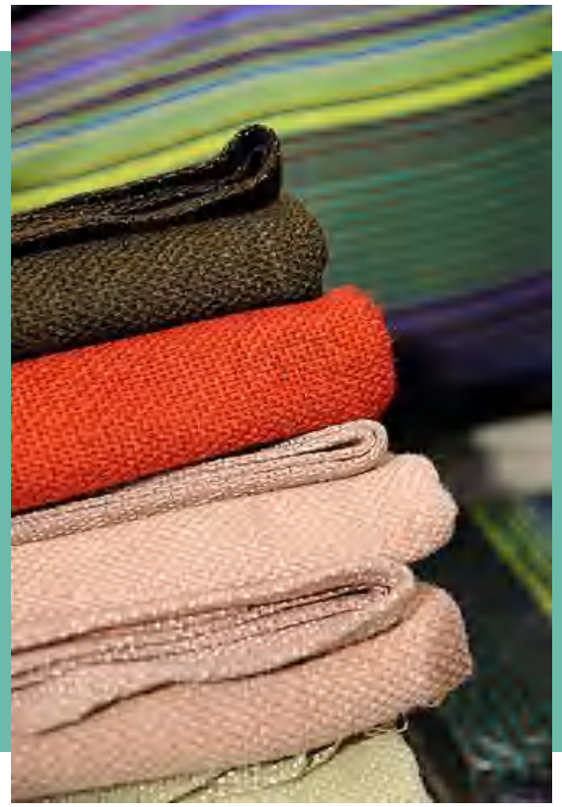
Due to the action of surface tension.

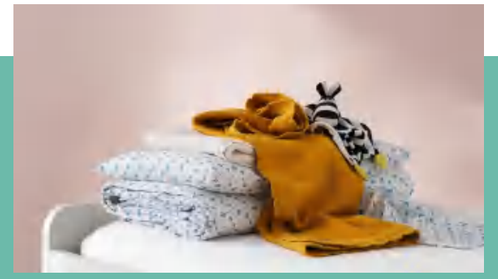
The membrane contracts into a ball, forming a bubble.Because of the lifting force, bubbles rise to the liquid surface. When a large amount of bubbles gather on the surface, a foam layer is formed.

Textile Defoamer Solutions

Foam Is a Problem - Foam Control Is the Solution

Excess foam can create a variety of challenges, all detrimental to textile dyeing, textile auxiliaries, textile sizing & printing, pre-treatment and after finish: increased maintenance costs, lost capacity, reduced efficiency and longer processing time.





Textile Auxiliaries:

Textile auxiliary production always use a large amount of surfactants as basic material. With continuous heating and mechanical stirring, it's easy to form bubbles. Internal addition and external addition decide the defoamers' performances.

Textile Dyeing Process:

Water-based system is composed of dye and textile printing and dyeing auxiliaries. Under high-temperature, mechanical vibration and shear force, it's easy to form a lot of foam.

During mid temperature dyeing process, water-based system includes lots of dye, scouring agent, permeating agent and other surfactants. Because of mechanical vibration, water-based system is easy to form a lot of foam. Silicone or silicone-polyether defoamers are recommended. Because they have great antifoaming performances under mid or high temperature and have great strong acid &alkali resistance.

Silicone and compound defoamer is recommended.

The solution: defoamer products from RICKMAN

RK-82S is a 20% silicone antifoam agents, widely used in textile dyeing, textile sizing and coating pesticide, and water treatment.

RK-561 is used to knock down foam quickly in textile, water treatment, and industrial cleaning.

RK-63T is an compound foam control agent used to textile auxiliary, textile dyeing and water treatment.

RK-210S is a new defoaming agents designed with a very good performance and water dispersibility.

RK-8636 is a innovative silicone defoamer, which is ready to used in widely applications, such as textile, water treatment, fermentation, PCB cleaning.

Textile Printing and Sizing:

Textile pulping mainly includes starch, carboxyl methyl cellulose, methyl cellulose polyvinyl alcohol, polyvinyl acetate, and acrylate. Under shear force and with temperature and pH change, those macromolecular substances are easy to form bubbles. And during beating and stirring, print paste is easy to form foam. If foam is not dealt with promptly, print paste will appear white point and spot, or it will make fabric pattern color fuzz.

Pre Treatment and After finish:

Pre-treatment: It needs desizing agent when product desizing, scouring&bleaching agent and detergent while bleaching&washing. For better permeation into the fabric, high temperature and strong alkali boiling-off are necessary, but they cause foam appearance.

After finish: It needs to add softening agent and keep continuous heating, which is easy to form a lot of foam.

RK-30N is an effective defoamer emulsion with long-term antifoaming performance in textile, oil field, detergent, agriculture, and construction.

RK-900N is a high concentrated defoamer emulsion with productivity, and quality, including excellent break foam quickly.

RK-T60 is a compound antifoaming agent. It's useful in a variety of many processes, such as textile, spray cleaning, industrial cleaning, and acid and alkali system.

RK-15S is a PDMS defoamer and works efficiently in textile, slurry, petrochemical and metal working liquid.

RK-02P is a powder defoamer with excellent antifoaming performance in textile industry, water treatment, bottle cleaning and slurry.

RK-03P is a solid type of defoamer and works in a range of applications, including household, textile dyeing, industrial cleaning, etc..

RK-203 is a non silicone defoaming agent and used in textile industry, water based paint and paper coating.

RK-100S is a high concentrated silica defoamers with good antifoaming performance in widely industries.

RICKMAN Recommendation