



SIXIN® Defoamers for MWF

For more than 27 years, SIXIN has helped its customers by perfecting their products and processes through the formulation of defoamers and antifoams that meet their specific needs. SIXIN was founded in 1992 by Dr. William Tsao in the city of Nanjing, China, with a focus on research and development, production and sales of defoamers and antifoams. In order to gain a global reach, the International Sales Offices was opened in Oregon in the United States.

SIXIN has a worldwide presence with more than 2000 clients around the world (China, Europe, Africa, Southeast Asia, Australia, India, Russia, the Middle East and the Americas). Within its staff, it has more than 30 professionals of the Chemical Sciences and Engineering, collaborating with universities with the aim of providing the latest technology in defoamers and antifoams.

If your company has a specific challenge for foam destruction, we have the experience and laboratory capabilities to formulate a unique solution. SIXIN seeks to provide you with a professional, focused and specific service, assuring you that our products offer optimal performance and competitive prices.

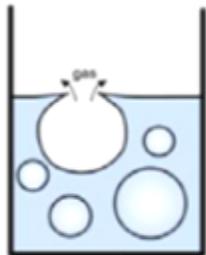


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Foam Generation

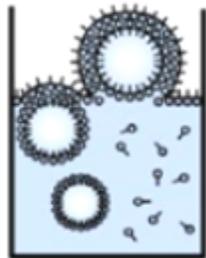
Pure liquid vs. foam

- A pure liquid does not foam.
- The foam is a dispersion of gas bubbles in a continuous matrix (liquid or solid) stabilized by the action of a surfactant or by the viscosity of the matrix.
- The foam forms structures of defined geometries by unions that repeat their arrangement and morphology in different directions and sizes. These joints are contours of thin films of surfactant through which the continuous matrix circulates.



PURE LIQUID

A pure liquid does not foam.

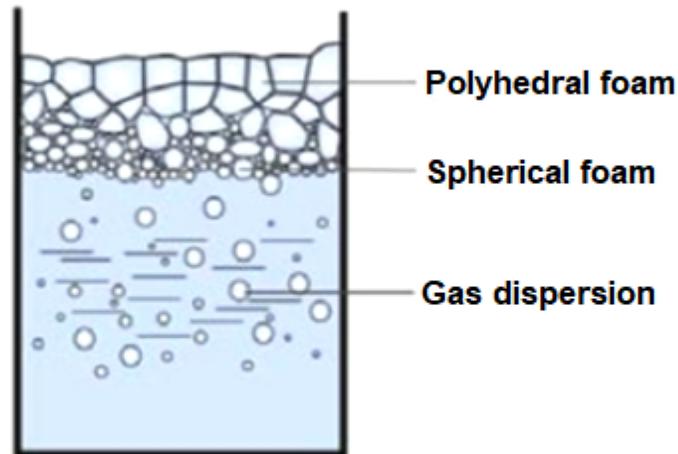


LIQUID WITH SURFACTANT

Stable foam.

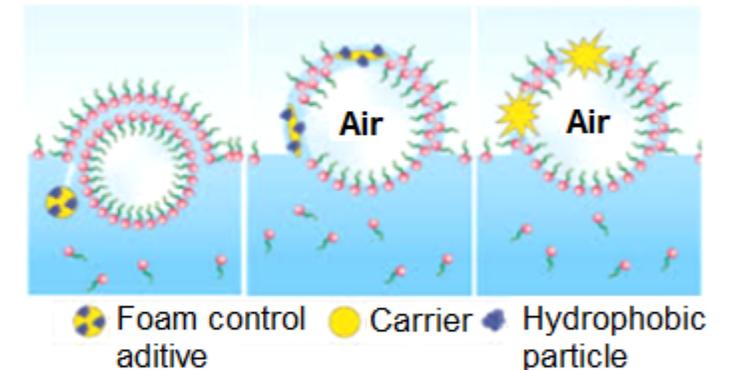
Foam stabilization mechanisms

- The bubbles must migrate to the surface to break.
- The drainage of the continuous matrix surrounding the foam bubbles leads to their rupture.
- Foam stability comes from a surfactant or surfactant films that prevent drainage, causing foam stabilization. It is at this point where the addition of foam control additives is required.



Defoamers' action

- Defoamers destabilize the foam by the following means:
 - They enter the surface of the foam bubble.
 - They extend along this surface and they thin the liquid film forcing the drainage of the matrix.
 - And finally, they join the liquid layers to break the bubble.
- This process is governed by surface tension.
- The surface tension of the defoamer drops should be lower than that of the continuous matrix.



SIXIN Defoamers general specifications



Antifoam formulation for metalworking fluids

- Control in the drop size of defoamers.
 - Too small drops do not destroy the foam.
 - Drops that are too large cause incompatibility.
 - The optimum droplet size will increase the rate of foam decomposition.

Features

- Persistent foam suppression action.
- Good compatibility with the system.
- Stability during long storage times.





Key features of SIXIN defoamers for metalworking fluids

- Our antifoams have small particle sizes and a very narrow distributions.
- These key features achieve exceptional dilution stability and good compatibility with all types of cutting oils.
- Contact your SIXIN sales representative for technical data sheets and samples for evaluation.

SIXIN defoamers for MWF

	99MF-18	99103P	99MF-28
Chemistry	Silicone organo-modified		
Appearance	Creamy, Milk-white Liquid		
Viscosity (25 °C, mPa·s)	1,000-3,000	700-1,200	3,000-5,000

