



Technical Data Sheet

XIAMETER™ AFE-0700 Antifoam Emulsion

10 percent active silicone emulsion

Features & Benefits

- Stable at a wide pH range (pH 4–12)
- Excellent foam control persistence (see Figures 1 and 2)
- Outstanding dilution stability in tap and demineralized water – stable for at least 5 weeks at 2 percent active content in tap water (see Figure 3)
- Easy to disperse in aqueous systems
- Complies with key chemical control laws and regulations, including TSCA, EINECS and MITI-ENCS, and is exempt from tolerance at 40 CFR 180.1001.920
- Improved antifoam performance even at higher temperature

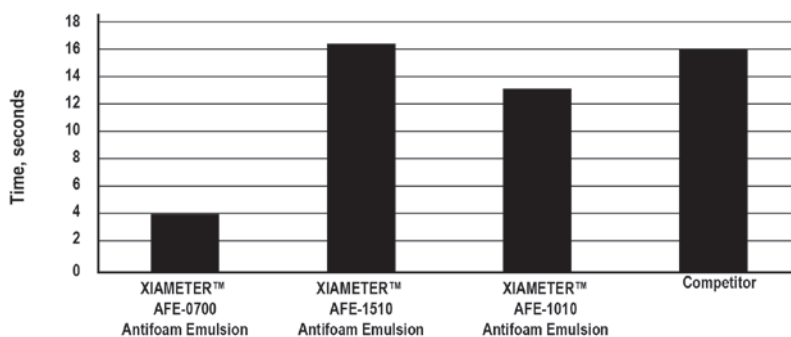


Figure 1:
Antifoam Persistence At 23°C (73.4°F) (CTM 0844 Results After 120-Second Shake Time)

Method: 100 mL of a foaming solution (1% TRITON® X 100 in water) is filled in a 250-mL bottle. The bottle is fixed in a wrist-action shaker and shaken for 120 seconds, after which the time for the breakdown of the formed foam is recorded. Shorter breakdown times indicate better antifoam persistence. A detailed description of the CTM 0844 (Corporate Test Method) is available on request.

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Features & Benefits (Cont.)

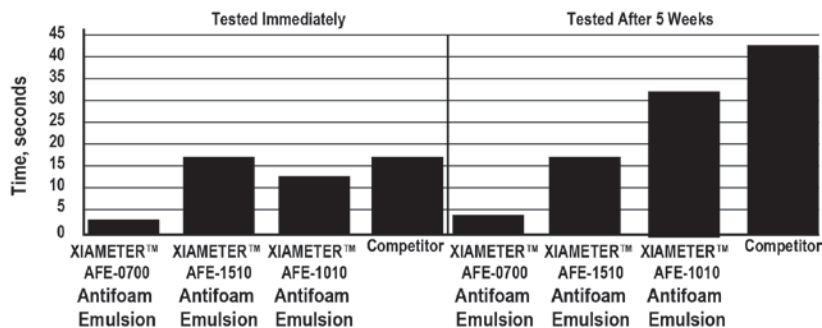


Figure 2:
Antifoam Persistence – Immediate and After Aging (CTM 0844 Results After 120-second Shake Time)

Test conditions are identical to test done in Figure 1. Storage conditions: 5 weeks at room temperature.

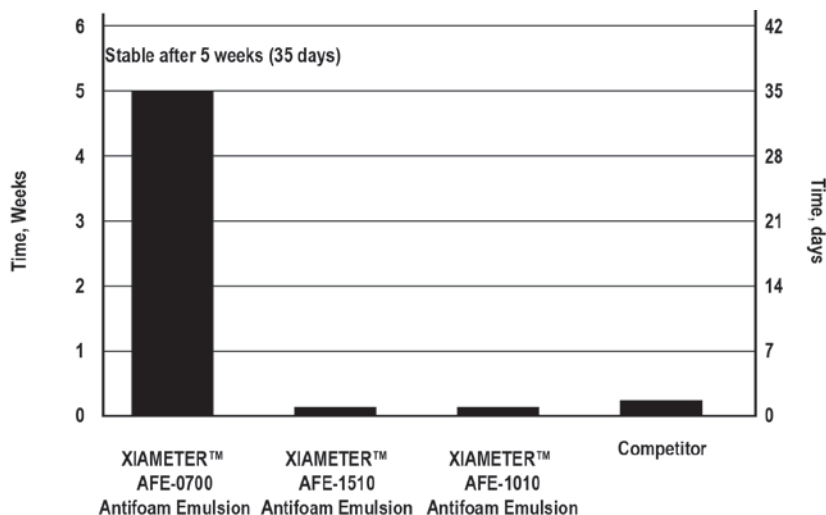


Figure 3:
Dilution Stability of XIAMETER AFE-0700 Antifoam Emulsion¹

¹ 2% active at 25°C (77°F).

The antifoam emulsions were diluted with tap water and mixed at low shear. Dilutions were considered stable if no signs of separation were observed (i.e., sedimentation, particle coalescence or creaming of the active ingredients). Note: The quality of tap water varies among geographic regions, which can affect dilution stability results.

Composition

- Silicone antifoam emulsion

Applications

- Possible application areas include agrochemicals, waste water treatment, industrial cleaning, chemical processing and textiles (scouring, sizing, postfinishing, top, hang and continuous dyeing)

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Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test ¹	Property	Unit	Result
0176B	Appearance		Off-white emulsion
0050	Viscosity ²	mPa.s	1500
0007A	pH		7–9
0862A	Nonvolatile Content	%	14
	Active Ingredient	%	10
	Emulsifier Type		Nonionic ³
	Diluent		Water

1. CTMs (Corporate Test Methods) are similar to standard ASTM tests in most instances. Copies of CTMs are available upon request.
2. Brookfield spindle #3 at 20 rpm.
3. Contains a small amount of anionic ingredient.

Description

XIAMETER™ AFE-0700 Antifoam Emulsion is designed to provide optimum antifoam performance combined with good dilution stability and compatibility in various systems.

XIAMETER AFE-0700 Antifoam Emulsion can be used in a wide variety of applications. It is characterized by very good dilution stability in tap and demineralized water as well as excellent long term foam control persistence.

How To Use

XIAMETER AFE-0700 Antifoam Emulsion should be diluted with water prior to use to accelerate dispersion in the foaming medium. A starting point dilution of 1 part XIAMETER AFE-0700 Antifoam Emulsion with 5 parts of water is suggested.

The preferred method of dilution is to add water to the emulsion, not vice versa. Avoid excessive shear. Preprocess testing is recommended.

Suggested starting concentration is 50–100 ppm active ingredient.

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

XIAMETER AFE-0700 Antifoam Emulsion is unaffected by freeze/thaw cycles. If the product freezes, it should be stored at room temperature to thaw, then remix at room temperature before use.

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Usable Life And Storage

Product should be stored between 5 and 35°C (41 and 95°F) in original, unopened containers.

During prolonged storage there may be a slight tendency for product separation; therefore, it is recommended that XIAMETER AFE-0700 Antifoam Emulsion be gently agitated prior to use to ensure homogeneity.

XIAMETER AFE-0700 Antifoam Emulsion will freeze below 0°C (32°F). If frozen, allow to thaw at 18–29°C (64.4–84.2°F) for at least one day and agitate gently to assure homogeneity.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health And Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, www.consumer.dow.com or consult your local Dow representative.

<http://www.xiameter.com>

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

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