



AF 9020 E Antifoam Emulsion

Product Description

AF 9020 E is a 20% of a polydimethylsiloxane based antifoam emulsion incorporating non-ionic auxiliaries, useful for defoaming aqueous or strongly polar organic systems. AF 9020 E may be used in both food and industrial processes. It provides excellent foam destruction and control.

Key Performance Properties

- Industrial.
- Carpet cleaning.
- Pesticide/herbicide formulations.
- Chemical distillations.
- Waste water treatment.
- Food.
- Fermentation processes.
- Jam and jelly making.
- Wine production.
- Fruit and vegetable processing.

Typical Properties

Property	Unit	Result
Physical Form	-	White, pourable liquid
Emulsifiers	-	Non-ionic, NPEO free
Silicone Content	%	20
Specific Gravity at 20°C (EG A.3 / DIN 51757)	g·cm ⁻³	1.01
Viscosity at 20°C	mm ² ·s ⁻¹	< 3500

Table 1: Typical product data values should not be used as specifications. Assistance and specifications are available from Momentive performance materials. Information on regulatory status (e.g. FDA, BfR) also available.

Applications

AF 9020 E antifoam is a 20% emulsion useful as antifoam in many food processing and industrial systems. It is recommended as a defoamer for highly alkaline or acidic aqueous systems, exhibiting improved efficiency and longevity over conventional silicone antifoams. This emulsion also provides excellent defoaming properties in nonionic, cationic, and anionic systems. Its low viscosity and easy dispersibility assure optimum foam control and handling ease.

Processing Guidelines for Antifoam Emulsions

When evaluating antifoam emulsions, it is suggested that the evaluation be started at about 10 ppm silicone. This starting point represents an average level of silicone found to be effective in many applications. The level can then be adjusted in either direction to determine the minimum effective concentration for the specific system requiring foam control.

Stable low-solids emulsions

In producing dilution-stable antifoam emulsions, the techniques below may be found useful. The final emulsion viscosity should be between 1000 and 2000 cps. Viscosity is controlled by percent of thickener / stabilizer. For best performance, thickeners should be well dispersed in water before the antifoam is added.

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Typical Momentive procedure for reduction of antifoam emulsions to a 10% or lower industrial grade defoamer is as follows:
Formulating a 10% or lower industrial grade defoamer:

Step	Ingredients	Procedure	Supplier
Part A	62.3% water 4.0% Acrysol ASE-108	Mix Part A	- Rohm & Haas
Part B	2.7% of a 10% NaOH solution	Add Part B until clear viscous solution Forms at pH of about 6-7.	-
Part C:	31.0% antifoam emulsion	Add Part C and stir until uniform.	Momentive performance materials

Food Contact

Typical Momentive formulation for food contact applications using the antifoam emulsions which comply with FDA regulations:

Step	Ingredients	Procedure	Supplier
Part A	49.0% water	Heat Part A to 21°C/70°F (after sterilization).	-
Part B	1.0% CMC- 7HF	Add Part B and mix until dissolved.	Hercules
Part C:	50.0% antifoam emulsion	Add Part C and stir until uniform.	Momentive performance materials

General Industrial

* All equipment used must be sterile.

Handling and Safety

The product safety information is not included in this datasheet. When handling chemicals, proper safety precautions must be observed and suitable personal protection equipment shall be used. Prior to handling this product it is required to consult the technical and safety data sheets and container labels for safe use. Safety Data Sheets are available via our web page or upon request at Momentive performance materials. Similar information for solvents and other chemicals recommended in this data sheet should be obtained from the respective suppliers.

Packaging

AF 9020 E is available in 20 kg pails, 200 kg drums and 1000 kg containers.

Availability

Products may be ordered from Momentive performance materials, the Momentive performance materials Sales office nearest you or where appropriate, an authorized Momentive performance materials product distributor. Contact information is supplied on the last page of this datasheet.



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