KAISER Performance Materials

KAG 1575 Silicone Antifoam Emulsion

for agricultural applications

Product Description

KAG 1575 silicone antifoam emulsion is a highly potent silicone antifoam emulsion that uses novel silicone materials to provide excellent foam control as well as a high level of compatibility with a variety of surfactant systems.

Compared to common silicone defoamers, KAG 1575 silicone antifoam emulsion provides an exceptional initial foam control when first applied to a' foaming system, as well as the ability to maintain its foam control properties for longer periods. As a result, KAG 1575 silicone antifoam emulsion can be used at lower use levels than conventional silicone antifoams. Its improved compatibility is particularly evident when used in difficult surfactant systems such as those that have high surfactant concentrations, and those that contain electrolytes.

Applications **KAG-1575** is multi-purpose: it therefore has applications in all types of industries that are faced with problems of controlling problem foams in aqueous systems, at all pH's.

- Oil and petrochemicals:
  - Scrubbing of natural or refinery gas with alkanolamines
  - Production of bitumen emulsions
- Agrochemicals: Pesticide compounds (aqueous dispersions)
- Chemicals: Distillation, Production of adhesives and glues
- Textiles industry: Dyeing, printing, oiler rolling.
- Rubber: Compounding of natural or synthetic latex
- Paints inks, varnish: Production and filling
- Homecare products: Production and filling of polishes
- All industries: Effluent treatment

Key Features and Typical Benefits

- High anti foam potency
- Rapid defoaming when the antifoam is initially applied to the foaming system
- Long lasting foam inhibition
- Easy and rapid dispersal in aqueous systems
- Performs well over a broad pH range

Typical Physical Properties

Appearance	Medium Cream
Actives Content, %	30
Emulsifier System	Non-ionic
pH	6 - 7

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How to Use

KAG 1575 silicone antifoam emulsion is a medium viscosity emulsion that is intended to be used in water-based systems. It can be added directly to these systems without pre-dilution and mixed with slow to moderate agitations to ensure a complete and homogenous dispersion.

The use levels for KAG 1575 silicone antifoam emulsion when used in the final foaming system will be dependent upon the nature of the foaming system and the type of agitation that generates the foam. A recommended starting point is addition of sufficient KAG 1575 silicone antifoam emulsion that would give between 5 ppm and 50 ppm of antifoam (based on % silicone solids) in the final foaming formulation.

As with any aqueous-based formulation, it is recommended to confirm that the foam control agent remains dispersed once added to the pesticide formulation.

Performance Data

An example of foam control efficiency and durability for KAG 1575 silicone antifoam emulsion is shown in Figure 1. Solutions of Roundup Ultra (2.5%) containing either 25 ppm of a standard silicone antifoam, or 10 ppm KAG 1575 silicone antifoam emulsion were agitated on a wrist action shaker for 1, 15 and 60 minutes at a temperature of 22°C. Foam height was measured after each time interval at 1 minute after shaking.

KAG 1575 silicone antifoam emulsion provides excellent foam control relative to the standard silicone antifoam, but at less than half the use level (10 ppm vs. 25 ppm). Although the standard silicone antifoam looses effectiveness after 15 minutes of agitation, KAG 1575 silicone antifoam emulsion provided a high level of foam control, even after 60 minutes of agitation, demonstrating the superior durability properties of this unique antifoam agent.

Product Safety

When considering the use of any of KAISER - Silicones products in a particular application, you should review our latest Material Safety Data Sheets and undertake appropriate testing to ensure that your intended use can be accomplished safely. For Material Safety Data Sheets and other product safety information, contact the KAISER sales office nearest you. Before handling any of the products mentioned in the text, please obtain available product safety information and toke necessary steps to ensure safety of use.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Material Safety Data Sheet and label for product Safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at www.kaiserindustries.in or, upon request, from any KAISER Performance Materials representative. Use of other materials in conjunction with KAISER Performance Materials products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.