

SAG* 1538 Silicone Antifoam Emulsion



MARKETING BULLETIN

SPECIALTY FLUIDS - AGRICULTURE

SAG 1538 silicone antifoam is a highly potent silicone antifoam that uses new silicone materials to provide excellent foam control. This 100% active material is designed for use in a broad range of foaming systems. Compared to common silicone defoamers, SAG 1538 silicone antifoam can provide an exceptional initial foam control when first applied to a foaming system. Additionally, SAG 1538 silicone antifoam has the ability to maintain its foam control properties for longer periods, as a result it can be used at lower use levels than conventional silicone antifoams. It is particularly effective when used as the foam control agents in hard to defoam surfactant concentrates that contain a high level of organic surfactants and those that contain electrolytes.

Key Features and Typical Benefits

- 100% actives
- · High antifoam potency in the majority of foaming systems
- Rapid defoaming when the antifoam is initially applied to the foaming system
- Long lasting foam inhibition
- Performs well over a broad pH range
- Meets EPA 40 CFR §180.910 requirements⁽¹⁾

Typical Physical Properties

Appearance	Opaque, oily viscous liquid
Actives Content, %	100
Viscosity 25 °C (LVT No 4, 12 rpm), cP	5,000
Specific Gravity	≈ 1.0

Typical physical properties are average data and are not to be used as or to develop specifications.

(1) The components meet the requirements of U.S. EPA regulation 40 CFR §180.910, and are therefore exempt from tolerances in food when used as an inert ingredient in agricultural applications in accordance with the other conditions of that regulation.

*SAG is a trademark of Momentive Performance Materials Inc.

Potential Use in Agrochemical Products

SAG 1538 silicone antifoam is 100% active that is not immediately dispersible in water. However, it can be easily incorporated into surfactant concentrates, using the surfactants within the system to stabilize the antifoam within the formulation. When SAG 1538 silicone antifoam is added to these concentrates, apply slow to moderate agitations to ensure a complete and homogenous dispersion of the antifoam. The final formulation that incorporates SAG 1538 silicone antifoam must be validated to ensure that the silicone actives do not migrate within the formulation as this can influence the uniformity of the foam control when these formulations are stored for prolonged periods.

The use levels for SAG 1538 silicone antifoam when used in the final foaming system will be dependent upon the nature of the foaming system and/or the agitation that causes the generation of the foam. A recommended starting point is addition of sufficient SAG 1538 silicone antifoam that would give between 5 ppm and 20 ppm of antifoam (as received) in the final foaming formulation.

Performance Data

SAG 1538 silicone antifoam can offer outstanding defoaming performance in many pesticide formulations. Figure 1 illustrates the shake test results with the foam height observed at 1, 15 and 30 minutes after shaking. These test data demonstrate that SAG 1538 silicone antifoam at 1 ppm, virtually eliminates all foaming in a Tallow Amine Ethoxylate (TAE, 15 EO) Ag formulation, while other standard antifoams will only reduce foaming levels. Figure 2 visually illustrates this outstanding defoaming performance. In addition, SAG 1538 silicone antifoam is easily dispersed in many non-aqueous systems, avoiding phase separation associated with typical antifoam components (Figure 3).

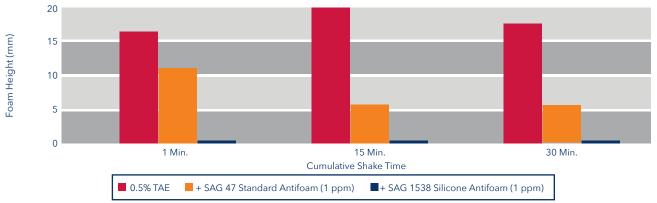


Figure 1: SAG 1538 Silicone Antifoam Performance in 0.5% Tallow Amine Ethoxylate (TAE) Formulation

Note: Test data. Actual results may vary.





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Figure 3: SAG 1538 Silicone Antifoam Dispersibility in Tallow Amine Ethoxylate



Note: Test data. Actual results may vary.



Patent Status

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.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative.

For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.



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