



Silwet ECO Spreader Water Reducing Adjuvant

MARKETING BULLETIN

SPECIALTY FLUIDS - AGRICULTURE



Silwet ECO Spreader water reducing adjuvant is a low foaming activator-spreader that can be considered for use in agriculture. It is listed by the Organic Materials Review Institute (OMRI) for use in organic production. Silwet ECO Spreader water reducing adjuvant helps reduce the surface tension of spray solutions beyond what can be achieved with conventional adjuvants. This can allow for lower spray volumes and related pesticide application costs.

Silwet ECO Spreader water reducing adjuvant is a superspreading surfactant that can quickly reduce the contact angle of spray solutions on foliar surfaces, thereby promoting increased surface coverage (Figure 1). This increase in spray coverage means that water requirements may be significantly reduced up to 70% of “spray to run-off” volumes in many crop applications. This makes Silwet ECO Spreader water reducing adjuvant a great choice to consider when water conservation and pesticide application costs are important.

The low foaming properties of Silwet ECO Spreader water reducing adjuvant typically make it much easier to handle than other activator-spreader adjuvants (Figure 2).

Key Features and Typical Benefits

- Superspreader for improved coverage
- Potential for 25-75% lower spray volumes and costs
- Effective with most low temperature applications
- Low foaming
- Nonionic
- Meets requirements⁽¹⁾ for EPA 40 CFR §180.910

Typical Physical Properties

Surface Tension (0.1%), mN/m	21.5
Cloud Point (0.1wt%), °C	< 10
Critical Micelle Concentration (wt%)	0.003
Pour Point, °C	-50
Viscosity at 25 °C, cps	22
Flash Point, PMCC, °C	143
Specific Gravity at 25 °C	1.002

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 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.

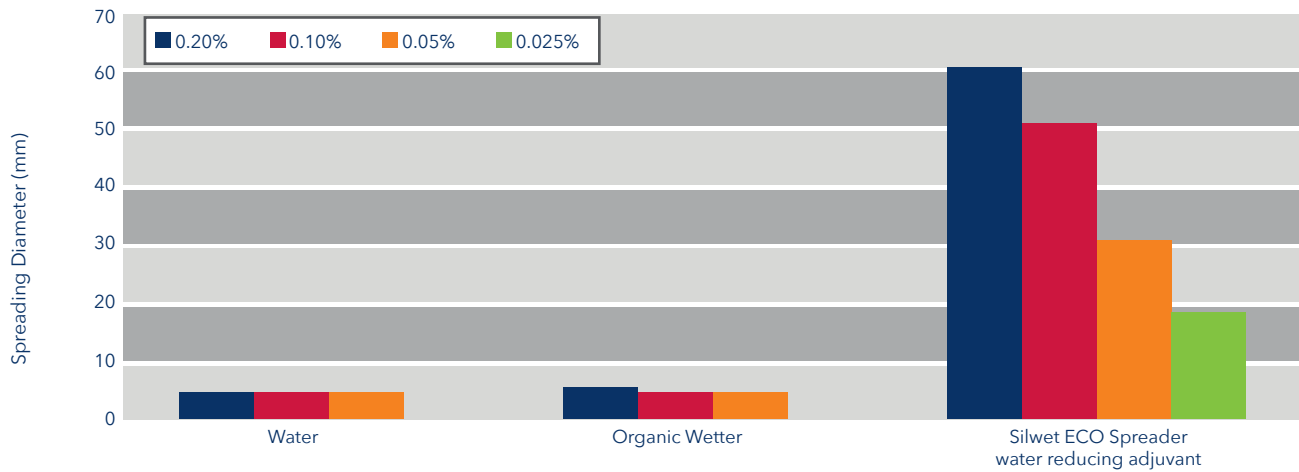
*Silwet is a trademark of Momentive Performance Materials Inc.

Potential Applications

Application	Typical Use Rates ^(a)
Plant Growth Regulators	0.025% to 0.05%
Herbicide	0.025% to 0.15%
Insecticide	0.025% to 0.1%
Fungicide	0.025% to 0.15%
Fertilizers & Micronutrients	0.015% to 0.1%

Fig. 1: Spreading of Agricultural Adjuvants

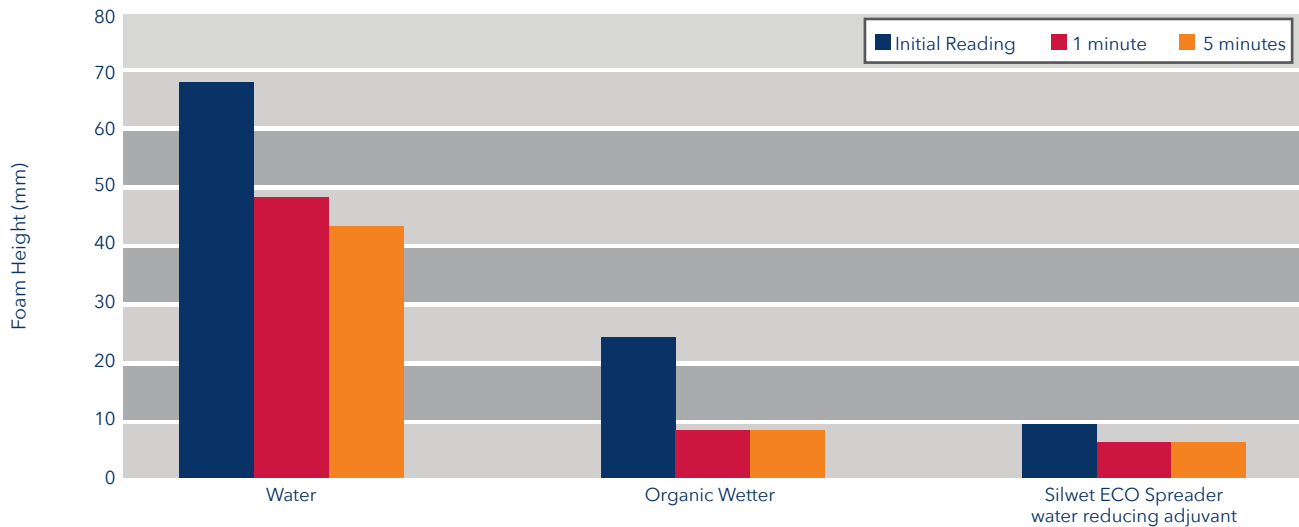
Effect of Adjuvant on Spreading Properties of Spray Solutions



Note: Test data. Actual results may vary.
 Note: Spreading on polyacetate film

Fig. 2: Foaming of Agricultural Adjuvants

Foam Properties of Adjuvants at 0.1% Use Level



Note: Test data. Actual results may vary.

General Considerations for Use

In Agrochemical Formulations

Silwet ECO Spreader water reducing adjuvant may be used as an effective adjuvant in agrochemical formulations. Although organosilicone surfactants are subject to hydrolysis under acidic or basic conditions, optimum performance is typically achieved by buffering the formulation to pH 6.5-7.5. Additionally, it is generally recommended that Silwet ECO Spreader water reducing adjuvant be used at ~5% concentration, based on the total formulation.

As a Tank Mix Adjuvant

Silwet ECO Spreader water reducing adjuvant when used as a tank-side spray adjuvant may be used to lower spray application volumes. Silwet ECO Spreader water reducing adjuvant is most effective as a tank-side adjuvant when spray mixtures are 1) within a pH range of 5-8, and 2) used within 24 hours of preparation.

High spray volumes, coupled with high surfactant rates, are not generally required to achieve sufficient coverage with the Silwet ECO Spreader water reducing spray adjuvant. In fact, the Silwet ECO Spreader water reducing spray adjuvant may provide adequate coverage in many low volume spray applications at rates between 0.025% and 0.1%.

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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