

Silwet™ Optim

PRODUCT DESCRIPTION

Silwet Optim is an advanced organosilicone-based adjuvant designed for the application of herbicides, fungicides, insecticides, and plant growth regulators in horticultural and arable crops. With its distinct formulation, Silwet Optim surpasses commonly used surfactants by significantly lowering the surface tension of the spray solution, being specifically designed to provide exceptional spreading capabilities while minimizing infiltration. This feature makes it an ideal adjuvant for the application of contact pesticides in sensitive crops such as fruits, flowers, and vegetables. As an organic listed adjuvant, Silwet Optim is particularly well-suited for organic farming, and it can also enhance the adhesion, retention, and coverage of biological pesticides, which offers the potential for increased efficacy.

KEY FEATURES & TYPICAL BENEFITS

- Promotes improved agrochemical deposition and enhanced spray coverage.
- Low potential for stomatal infiltration, which is desirable for sensitive crops (fruits, flowers, and vegetables).
- Helps water spray volume reduction.
- Can improve the performance of most agrochemical and biological applications.

CERTIFICATIONS & STANDARDS⁽¹⁾

- Meets EPA 40 CFR §180.910 requirements⁽²⁾.
- OMRI.
- KIWA.
- Ecocert.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	VALUE
Appearance, 25 °C	Clear liquid, white to slightly yellowish
Static surface tension, 0.1% soln. (dynes/cm)	22
Spread diameter ⁽³⁾ , 0.1% soln. (mm)	~45
Viscosity, 25 °C (cPs)	95
Hach number (NTU)	≤ 6
Aqueous pH, 25 °C	7
Pour point (°C)	< 0
Density, 25 °C (g/cm ³)	1.007

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

(1) For further information please contact your local Momentive representative.

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

(3) Spread of a 0.1% solution (10 µL drop on a flat polystyrene surface).

POTENTIAL APPLICATIONS AND USE RATES

APPLICATION	TYPICAL USE RATE
Fertilizers and Micronutrients	0.03% to 0.25%
Fungicide	0.05% to 0.25%
Herbicide	0.03% to 0.15%
Insecticide	0.03% to 0.25%
Plant Growth Regulators	0.05% to 0.25%

Use rates are dependent on crop, agrochemical, and spray volume requirements.

Adjust spray volume to avoid run-off: use lower water volume for easier-to-wet crops; use higher water volume in larger, dense canopies.

Silwet Optim is suitable for use on most horticultural crops, but Momentive advises testing a small area first for phytotoxicity before spraying larger areas.

Do not mix Silwet Optim with spray oils as phytotoxicity may occur.

GENERAL CONDITIONS FOR USE

IN AGROCHEMICAL IN-CAN FORMULATIONS

Silwet Optim may be used as a component in agrochemical formulations. Although organosilicone surfactants are subject to hydrolysis under acidic or basic conditions, optimum performance can be achieved by buffering the formulation to pH 6.5 to 7.5. Additionally, it is recommended that Silwet Optim be used at a concentration of at least 5%, based on the total formulation.

AS A TANK-MIX ADJUVANT

Silwet Optim, when used as a tank-side adjuvant, may be used to improve spray deposition and coverage or to allow for a reduction in spray volumes. Silwet Optim is most effective as a tank-side adjuvant when spray mixtures are within a pH range of 4 to 8 and used within 24 hours of preparation.

Because of the high level of spreading provided by Silwet Optim, it is recommended to adjust spray volume accordingly to avoid run-off. Use 30-250 mL of Silwet/100 L (or 4-32 fl. oz./100 gal) and adjust the concentration and water volume to avoid run off. In some cases, other ingredients in crop protection formulations (e.g., emulsifiers, dispersants) may interfere with the spreading of Silwet Optim. Therefore, it is recommended to check the spreading of the spray mixture to ensure adequate coverage. If not enough coverage is observed, increase the dose of Silwet Optim until the desired level of spreading is achieved.

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.

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.

LIMITATIONS

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

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