

Silwet™ 625 Super Penetrant

Description

Silwet 625 super penetrant is a proprietary trisiloxane ethoxylate based super spreading wetting agent used as a penetrant for herbicide applications such as glyphosate.

Key Features and Typical Benefits

- Promotes rapid penetration of herbicides into grasses
- Can improve spray coverage
- Controlled spreading overcomes antagonism associated with TSAs on grasses
- Can reduce use levels relative to allow amine ethoxylates
- Low use rates makes it appropriate for in-can formulations
- Meets EPA 40 CFR §180.920 requirements⁽¹⁾

Typical Physical Properties

Property	Value
Appearance at 25 °C	Clear amber liquid
Surface Tension mN/m (0.1% wt%)(a)	33
Viscosity (cps)(b)	144
Spread Diameter, mm (0.5 wt%)(c)	7
Cloud Point (0.1 wt%), °C	≥100
Flash Point, PMCC °C (°F)	82 (180)

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

Potential Applications and Use Rates

Application	Typical Use Rate
Fertilizers and Micronutrients	0.015% to 0.1%
Fungicide	0.015% to 0.1%
Herbicide	0.025% to 0.15%
Insecticide	0.025% to 0.1%
Plant Growth Regulators	0.025% to 0.1%

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

1. The components meet the requirements of U.S. regulation EPA 40 CFR §180.920, and therefore are exempt from tolerances when used as an inert ingredient in agricultural applications in accordance with the other conditions of that regulation.
 - (a) Surface tension by Wilhelmy Plate Method
 - (b) Brookfield Viscosity: 25 °C, Spindle LV-3, 100 rpm
 - (c) Deionized water, 25 °C

General Conditions for Use In Agrochemical In-Can Formulations

Silwet 625 super penetrant may be used as a component in agrochemical formulations. Although organosilicone surfactants are subject to hydrolysis under acidic or basic conditions, optimum performance is achieved by buffering the formulation to pH 6.0 to 7.5. Additionally, it is recommended that Silwet 625 super penetrant be used at a concentration of at least 0.025% based on the final spray dilution. Depending on the overall use rate of the herbicide formulation, this will translate into a contained rate of 25 to 100g Silwet 625 super penetrant/L formulation.

As a Tank-Mix Adjuvant

Silwet 625 super penetrant, when used as a tank-side adjuvant, may improve herbicide performance. It is most effective as a tank-side adjuvant when spray mixtures are within a pH range of 5 to 8 and used within 24 hours of preparation.

Typically, Silwet 625 super penetrant is used at 0.025% to 0.1% in the spray tank.

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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