



Agricultural Silicone Spreading And Penetrating Agent LA-12

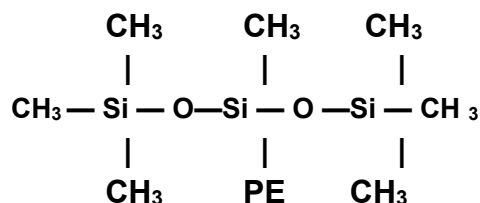
Description:

Agricultural silicone spreading and penetrating agent LA-12 is a polyether-modified trisiloxane.

Equivalents: Silwet L-77;

Main content:

Polyalkyleneoxide modified Heptamethyltrisiloxane CAS NO.: 27306-78-1



PE: Polyether

Mechanism of Agricultural Silicone Surfactant:

The chemical structure of silicon surfactant make it have super spreading property compared with regular adjuvant. The content of trisiloxane is the key which gurantees the spreading ability.

LA-12 has the concentration 100%, trisiloxane content 80%-85%, it is a superspreading surfactant.

Product Description:

Agricultural silicon synergistic agent LA-12 (@0.1wt%) gives an aqueous surface tension <20.5mN/m. After the mixture with the agrochemicals solution at the certain proportion, the contact angel of spray solutions on leaf surfaces is reduced, leading to an increase in spray coverage.

Additional, LA-12 promotes rapid uptake of agrochemicals into plants via stomatal infiltration. Spray solutions taken into plants in this way become rainfast, thereby improving application reliability.

Key Features and Typical Benefits:

- Superspreader;
- Reduces spray volume;
- Less Bubbles.
- Promotes rapid uptake of agrochemicals (rainfastness);

Technical Data Sheet



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Improves spray coverage;
Have good effect on the pests who hide in the sheltered place;
Nonionic;
Saves cost,
Reduces environmental pollution caused by agrochemicals.

Typical Technical Properties:

Appearance: Colourless to light amber liquid
Surface Tension (25°C, 0.1%, mN/m): < 20.5
Viscosity (25°C, mPa.s): 10~30

Refractive Index(25°C): 1.44~1.45
Cloud Point(1% wt, °C): <10

How to Use:

1) As A Tank Mix Adjuvant

LA-12 is the most effective as a tank-side adjuvant when spray mixtures are (i) within a PH range of 6-8, and (ii) prepare the spray mixture for immediately use or within 24h preparation.

LA-12 achieves full performance at very low use-levels, often 0.025 to 0.1% of the spray solution will be sufficient. (In general, add Agricultural Silicone Surfactant LA-12 (4000times) 5g in every 20kg spray solution.) Once the full performance of LA-12 has been reached, a further increase in the silicone surfactant concentration will show no effect. We recommend testing first at a concentration of 1% and afterwards lowering the LA-12 concentration to the point at that still full performance is achieved.

In general, the amount is as follows:

Plant promote regulator: 0.025%~0.05%

Bactericide: 0.015%~0.05%

Herbicide: 0.025%~0.15%

Fertilizer and trace element: 0.015%~0.1%

Pesticide: 0.025%~0.1%

When using, first dissolve the agrochemicals, add LA-12 after the uniform mixture of 80% water, then add water to 100% and mix them uniformly. It is advised that when using Agricultural Silicone Spreading and Penetrating Agent, the water amount reduced to 1/2 of the normal (suggested) or 2/3, average pesticide usage reduced to 70-80% of the normal. Using the small aperture nozzle will quicken the spray speed.

2) In Agrochemical Formulations

Silicone surfactant is surely stable and it can keep surface activities for long time in PH=6~8 liquid. If the liquid mixtures is PH=3~6 or PH=8~10, you have to test to confirm the usage.

Nanjing Silfluo New Material Co., Ltd.

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Web: www.silfluosilicone.com Email: inquiry@silfluo.com

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Although trisiloxane surfactants are subject to hydrolysis under acidic or basic conditions, optimum performance is achieved by buffering the formulation to PH6.5~7.5.

Additional, it is recommended that LA-12 be used at concentration of at least 0.5%-8%, based on total formulations. The user should adjust the amount of LA-12 according to different kinds of formulations to reach the most effective and most economical result. Do compatibility tests and stepwise tests before usage.

Package & Storage:

In 20Kg, 200Kg Plastic barrel or 1000kg, or up to clients request.

Keep in cool, dry and ventilated place. Keep away from sunlight and fire sources. Keep in unopened containers, shelf life is 24 months from the date of production. It is shipped as non-hazardous substance.

Storage beyond the shelf life does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.