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Nanjing Silfluo New Materials Co., Ltd.

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AGRICULTURAL SILICONE SURFACTANT

We help you find the product that best suits your project

PRODUCTS
SILICONE SURFACTANT FOR AGRICULTURE

Product Code	Chemical Name	Tech Data & Application
LA-10	Polyether-modified trisiloxane Equivalents: Silwet L-408	CAS NO.: 67674-67-3 Surface Tension(0.1%): <20.5mN/m Used in agrochemical like plant growth regulators, herbicide, insecticide, fungicide, fertilizers and micronutrients
LA-11	Polyether-modified trisiloxane Equivalents: Silwet L-77	CAS NO.: 27306-78-1 Surface Tension(0.1%): <21.0mN/m Used in agrochemical like plant growth regulators, herbicide, insecticide, fungicide, fertilizers and micronutrients
LA-12	Polyether-modified trisiloxane Equivalents: Silwet L-77	CAS NO.: 27306-78-1 Surface Tension(0.1%): <20.5mN/m Used in agrochemical like plant growth regulators, herbicide, insecticide, fungicide, fertilizers and micronutrients
LA-13	Alkyl modified trisiloxane Equivalents: Silwet L-560	CAS NO.: 17955-88-3 Viscosity:5~6CS Used in agrochemical like plant growth regulators, herbicide, insecticide, fungicide, fertilizers and micronutrients
LA-14	Polyether modified trisiloxane Equivalents: Silwet ECO, OFX-0309	Surface Tension(0.1%): <21.0mN/m Used in agrochemical like plant growth regulators, herbicide, insecticide, fungicide, fertilizers and micronutrients
LA-15	Polyalkyleneoxide Modified Trisiloxane Equivalents: Silwet L-806	CAS NO.: 134180-76-0 Surface Tension(0.1%): <22.0mN/m Used in agrochemical like plant growth regulators, herbicide, insecticide, fungicide, fertilizers and micronutrients
LA-16	Polyether modified trisiloxane	Main active ingredient content:50% Surface Tension(0.1%): <20.5mN/m Powder formulations of pesticide and foliar fertilizer
LA-17	Modified polydimethylsiloxane	Surface Tension(0.1%): <22mN/m Viscosity:80cs Used in agrochemical like plant growth regulators, herbicide, insecticide, fungicide, fertilizers and micronutrients

SILICONE:
THE MOST WIDELY USED SYNERGIST IN AGRICULTURAL PRODUCTION!

Agricultural silicone is mainly composed of ethoxy-modified trisiloxane, which is a polyether-modified special silicone surfactant and is the most widely used synergist in agricultural production. When mixed with corresponding pesticides, it can significantly improve the utilization rate of pesticides.

01 Silicone is different from other common drug synergists or active agents:

★ Silicone has smaller surface expansion force, stronger spreading, adhesion and penetration, wettability, temperature resistance, and rain erosion resistance.

★ It can be used in conjunction with most fungicides, insecticides, herbicides, plant growth regulators and foliar fertilizers on the market to significantly improve the effects of various liquid medicines.

★ The silicone surface has a super expansion function, which makes the coverage area of the liquid medicine wider and more uniform, so that the amount of liquid medicine absorbed or penetrated by the surface of the leaves and insect bodies is larger, and the control effect is more significant.

★ Organosilicon can reduce the frequency and cost of medication, and can save up to 30% and 50% of medication and water respectively.

02 What are the characteristics of adding silicone?

1. Super expansion ability, more conducive to wetting the target drug with the liquid

The expansion of the medicinal liquid on the surface of plant leaves or the surface of pests directly affects the level of medicinal efficacy. The surfaces of most plant leaves and pests have cuticles, waxy layers, fluff, or rough surfaces that are not easy to adhere to the liquid medicine. Spraying the liquid medicine directly diluted with water is very unstable on these surfaces. The addition of organic silicon can solve these problems well, so that the drug effect can be maximized.

2. The contact angle is smaller, which can greatly improve the spreadability of the drug solution on the drug target

When the medicinal liquid is sprayed on the leaves or the surface of pests, the smaller the contact angle between the medicinal liquid and them, the better the expansion and distribution of the medicinal liquid, and the better the medicinal effect. Silicone has a very low surface tension, which can greatly reduce the contact angle of the liquid sprayed on the surface of plant leaves and pests, so it can achieve better drug effect.

3. Strong scalability, which can greatly increase the coverage area of the liquid medicine on the target

The addition of organic silicon liquid medicine can double the coverage area of the liquid medicine on the leaves of crops, which is also an important reason why the use of organic silicon auxiliaries can greatly improve the effect of pest control.

4. Strong osmotic absorption and resistance to rain erosion, greatly improving the stability of the liquid medicine.

Organosilicon can make the liquid medicine sprayed on the surface of plant leaves and insect bodies penetrate into the target object faster, better and more through the stomata. At the same time, it has excellent resistance to rain erosion. This is the case with liquid medicine, and the effect of adding organic silicon by using foliar fertilizers is so obvious, which is incomparable to single-use drugs or foliar fertilizers.

03 Precautions

When using silicone, there are a few points to pay special attention to.

1. Ready-to-use: use liquid medicine as soon as possible.

2. Reduce the water consumption of spraying and properly speed up the spraying speed. The amount of spray is appropriate to form a water film but not to form water droplets.

3. During spraying, protective equipment should be worn according to the requirements of using pesticides, and special attention should be paid to the protection of eyes.

4. It is not recommended to add organic silicon to certain phytotoxicity-prone products such as flusilazole, epoxiconazole, fluazinam, propargid, fenbutatin, etc.

5. It is best to apply pesticides before 10:00 am and after 4:00 pm to avoid high temperature application. Strictly follow the multiple dilution of more than 3000 times.