

# Features of KAISER Silicone Surfactant

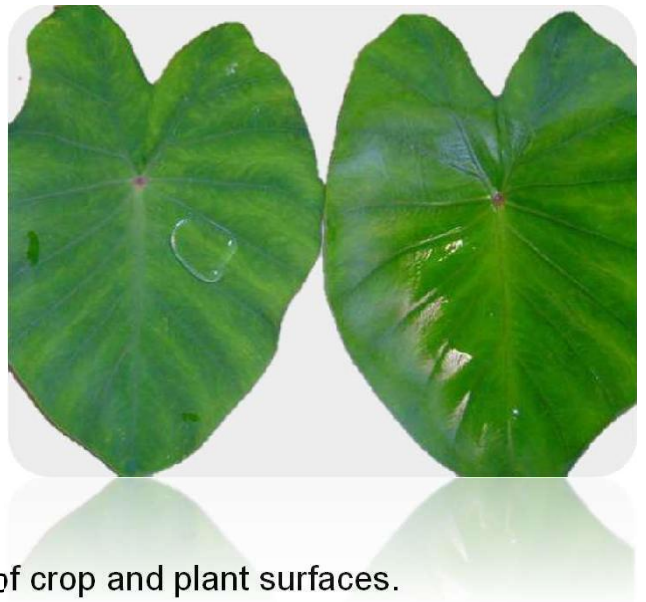
**Silicone Surfactant** represents a new, highly effective non-ionic surfactant. It's tank mixed to aid or modify the action of an agrichemical or the physical characteristics of the mixture.

Depending upon the treatment goals, Silicone Surfactant can advance the performance of the spray mixture by improving spreading, penetration, deposition, wetting, sticking, and moisture retention properties.

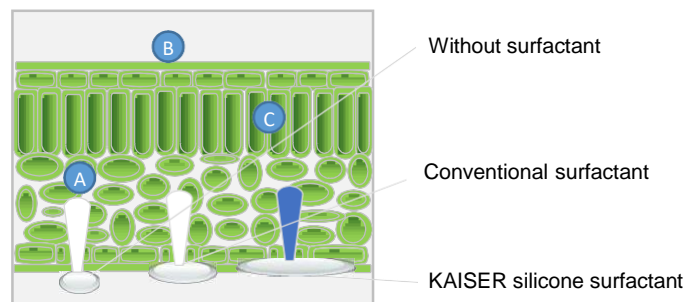
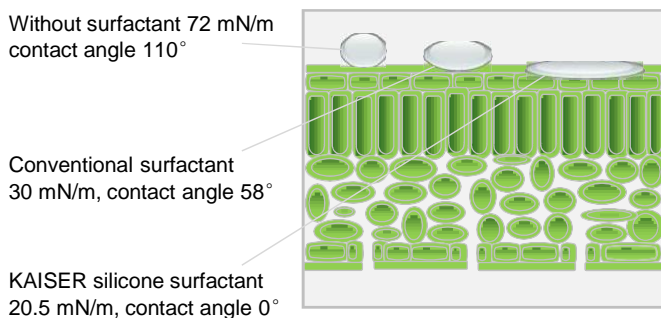
Surface Tension(0.1%aq)  
Hydrocarbon Surfactant ~ 30 mN / m  
Silicone Surfactant only ~ 20.5 mN / m

Surface tension threshold of Leaf surface wetting is 25mN/m

Super spreading and Super wetting are consequence of lowering surface tension fastly when it is below 25 mN/m.



- Super spreading for exceptional spray coverage of crop and plant surfaces.
- Reduce the spray volumes and the waste of water up to 70%.
- Excellent penetration providing better uptake and rainfastness.
- Nonionic and Nontoxic, useful with a broad range of agrochemical formulations.
- Save time, money and reduce the soil and ground water contamination.



A = Stoma  
B = Cuticle layer  
C = Epidermis

# Selection Guide of KAISER Silicone Surfactant

<b>KSIL 408</b> <ul style="list-style-type: none"> <li>● 1. Super spreading and Super wetting</li> <li>● 2. Super penetrating of spray agricultural chemicals</li> <li>● 3. Promotes rapid uptake of agrochemicals(rain fastness)</li> <li>★ 4. Economical grade</li> </ul>	<b>KSIL 410</b> <ul style="list-style-type: none"> <li>● 1. Super spreading and Super wetting</li> <li>● 2. Super penetrating of spray agricultural chemicals</li> <li>● 3. Promotes rapid uptake of agrochemicals(rain fastness)</li> <li>★ 4. The earliest commercial product.</li> </ul>
<b>KSIL 420</b> <ul style="list-style-type: none"> <li>● 1. Super spreading and Super wetting</li> <li>● 2. Super penetrating of spray agricultural chemicals</li> <li>● 3. Promotes rapid uptake of agrochemicals(rain fastness)</li> <li>★ 4. Low foam</li> </ul>	<b>KSIL 420D</b> <ul style="list-style-type: none"> <li>● 1. Super spreading and Super wetting</li> <li>● 2. Super penetrating of spray agricultural chemicals</li> <li>● 3. Promotes rapid uptake of agrochemicals(rain fastness)</li> <li>★ 4. Extreme Low foam</li> </ul>
<b>KSIL 425</b> <ul style="list-style-type: none"> <li>● 1. Super spreading and Super wetting</li> <li>● 2. Super penetrating of spray agricultural chemicals</li> <li>● 3. Promotes rapid uptake of agrochemicals(rain fastness)</li> <li>★ 4. Acid-Alkaline resistant</li> </ul>	<b>KSIL 450</b> <ul style="list-style-type: none"> <li>● 1. Super spreading and Super wetting</li> <li>● 2. Super penetrating of spray agricultural chemicals</li> <li>● 3. Promotes rapid uptake of agrochemicals(rain fastness)</li> <li>★ 4. Better water solubility</li> </ul>

Product	Viscosity(25°C) /Cst	pH preference	Spreading	Foaming
KSIL 408	30-40	6.5-7.5	★★★★★	★★★★★
KSIL 410	10-20	5.5-8.5	★★★★★	★★★★
KSIL 420	20-40	5.5-8.5	★★★★★	★★
KSIL 420D	30-40	5.5-8.5	★★★★★	★
KSIL 425	30-40	/	★★★★★	★★★★
KSIL 450	50-60	5.5-8.5	★★★★	★★★★★

# Application of KAISER Silicone Surfactant

## Used as A Tank Mix Adjuvant.

Silicone Surfactant is most effective used as tank-mix adjuvant when spray mixtures are within pH range of 5-8 (6.5-7.5 is preferred), and used within 12 hours after preparation (within 4 hours is recommended)

Typical Application	Typical Use Rate
Insecticides	0.025-0.100%
Fungicides	0.015-0.050%
Herbicides	0.025-0.150%
Nutrients	0.025-0.100%
Plant Growth Regulators	0.025-0.100%
Soil Wetting Agent	0.025-0.100%

These dosages account for various water volumes in order to minimize the risk of runoff. To be in line with regulatory compliances, please observe the local label whether a maximum concentration must not be exceeded. Before the actual spray application with KAISER silicone surfactant with a pesticide or fertilizer, it is recommended to test the tank mix prepared on a small test spot to check for any undesired results.

## Warranty and Packages

Stored in cool and dry place and make sure it is unaccessible to children.

Warranty 36 month in originally closed package. Products beyond the shelf life can be usable, if

quality check passed. Transported as Non-

Dangerous Goods.

Multiple packages (1L, 5L, 25L, 200L, 1000L and customized OEM service is available)



# KAISER MSO - Methylated Seed Oil Surfactant

**KAISER MSO** is blend of Methylated soybean oils and silicone surfactant(emulsifier). Thanks to the advantages combination of the components, KAISER MSO is low viscosity fluids which have low volatility, good solvent and super spreading properties. These characteristics enable these oils to coat leaf surfaces, soften, penetrate and spread through the waxy leaf cuticles. Thus, KAISER MSO enhances pesticides performance under a wider range of weather conditions compared to ordinary MSOs and COCs.

## Key Features

- Designed for use with herbicides, insecticides, fungicides, defoliants.
- Quick wetting and uniform droplet distribution
- Improves penetration, spreading. Sticking and preventing evaporation



## Application

Use as a tank mix adjuvant. KAISER MSO is compatible with most pesticides. However, if the desired combination has not been previously used, a compatibility test is recommended.

Defoliants, Herbicides: Use ½-2 pints per acre. Exercise caution with selective herbicides where selectivity depends upon wetting the weeds but not the crop.

Fungicides, Insecticides, Miticides: Use ½-1 pint per 100 gallons of spray mixture. For improved efficacy with all tank mixes, use at least ½-1 pint per acre when finished spray volume is less than 20 gallons per acre. For backpack or hand held sprayers, use ½ fl.oz. per gallon of finished spray solution.

Specific use rates will vary with conditions of application such as water hardness, application method, equipment, spray droplet size, condition of foliage, etc. Also, higher rates than those below may be used if recommended by pesticide label. Follow pesticide label directions.

## Warranty and Packages

- Stored in cool and dry place and make sure it is inaccessible to children. DO NOT allow water to be introduced into it.
- It warranty 36 Months in originally closed package. Products beyond the shelf life canbe usable, if quality check passed. Transported as Non-Dangerous Goods.
- Multiple packages ( 1L, 5L, 25L, 200L, 1000L and customized OEM service is available)

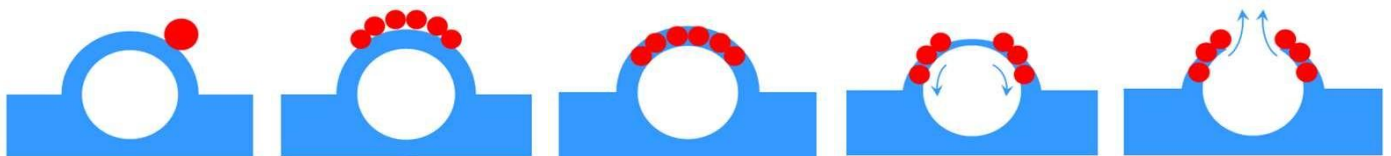
# KAG-1575 – Silicone Defoamer

**KAG-1575 Silicone Defoamer** is a high performance foam control antifoam emulsion based on organo-modified siloxanes. It provides excellent initial foam control and with the ability to maintain foam control properties over long period. It can be easily diluted and dispersed. Therefore, it can be evenly dispersed in water-based agricultural Formulations. It is widely used in many agricultural applications, like as foam control agent for pesticides, during production, packaging and spray tank operations.

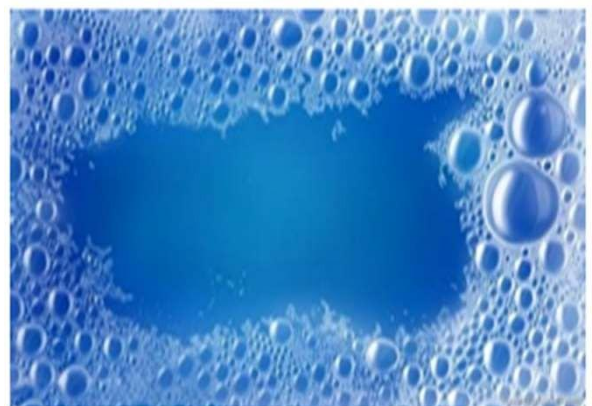
## Key Features

- Excellent defoaming performance through a wide temperature range (25° C- 100°C).
- Good stability in aqueous dilutions. And be easily diluted and dispersed.
- Stable in alkaline environments.
- Efficient at low dosage in formulations Recommend the dosage with 0.05 % to 0.2% of the neat product.
- Rapid defoaming and Excellent ability to manage difficult-to-control foaming systems.

## Principle of Antifoam



Property	Result
Appearance	Milky liquid
pH	6.5-8.5
Viscosity (mPa.s, 25°C)	250-600
Specific Gravity (25/25 °C)	0.90-1.00
Solid content (%)	≥37.5
Emulsifier Type	Weak anionic



## Warranty and Packages

- Stored in cool and dry place and make sure it is inaccessible to children.
- It warranty 36 Months in originally closed package. Products beyond the shelf life canbe usable, if quality check passed. Transported as Non-Dangerous Goods.
- Packaging – 35 Kgs. Package.