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TECHNICAL DATA SHEET

**H-618**  
Spray Adjuvant

**DESCRIPTION**

**H-618** spray adjuvant is a proprietary trisiloxane alkoxyate based wetting agent, used where spray coverage is needed but rapid uptake of agrochemicals is undesirable.

**H-618** spray adjuvant lowers the surface tension of spray solutions, beyond that which is achievable with conventional adjuvants.

**KEY FEATURES AND TYPICAL BENEFITS**

- \*Superspreader
- \*Promotes spray volume reduction
- \*Improves spray coverage
- \*Nonionic

Because **H-618** spray adjuvant is a superspreading surfactant,the contact angle of spray solutions on leaf surfaces is reduced,leading to an increase in spray coverage (Figure 1).

Additionally, under specific conditions, **H-618** spray adjuvant promotes rapid uptake of agrochemicals into plants via stomatal infiltration. Spray solutions taken into plants in this way become rainfast, thereby improving application reliability (Figure 2).

Figure 1: Spreading

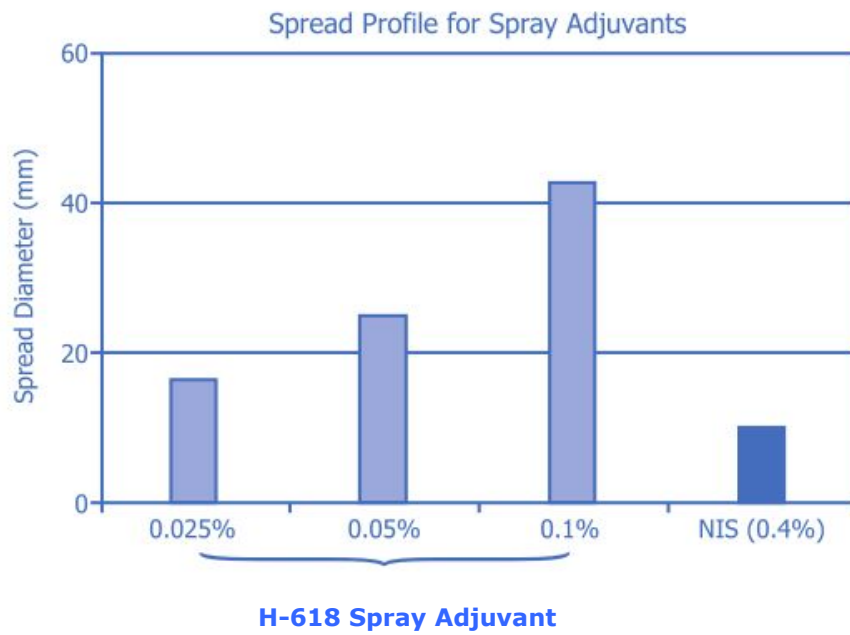
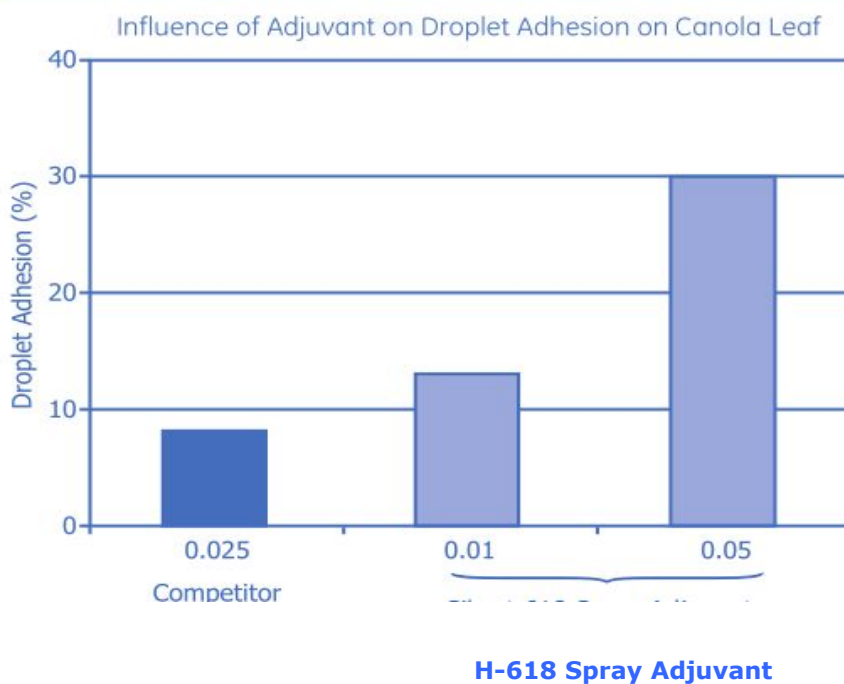


Figure 2: Droplet Adhesion



Spray droplet adhesion was measured on the upper surface of canola leaf, using 750 U droplets, applied from a free-fall distance of 50 cm. The leaf was positioned at a 22° angle of incidence. Figure illustrates the improved droplet adhesion for H-618 spray adjuvant as compared to a conventional adjuvant.

**H-618** spray adjuvant is nonionic in nature, making it useful with a broad range of agrochemical formulations.

Use level depends on spray volume, spray equipment and agrochemical application. Typical use rates for **H-618** spray adjuvant range from 0.01 to 0.05% for insecticide and fungicide applications and from 0.025 to 0.1% for herbicide applications.

**Equivalent:** Momentive Silwet 618

#### **TYPICAL PROPERTIES**

Appearance	Yellow to amber
Surface Tension (0.1%, mN/m)	23
Cloud point (0.1 wt%), °C	49
Viscosity (cst @ 25 °C)	112
Specific gravity (25/25 °C)	1.0102

#### **USES AND APPLICATION**

##### **In Agrochemical Formulations**

**H-618** spray adjuvant 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 6.5-7.5. Additionally, it is recommended that **H-618** spray adjuvant be used at a concentration of at least 5%, based on the total formulation.

##### **As A Tank Mix Adjuvant**

**H-618** spray adjuvant, when used as a tank-side adjuvant may be used to improve spray coverage, improve uptake or to allow for a reduction in spray volume. **H-618** spray adjuvant is most effective as a tank-side adjuvant when spray mixtures are 1) within a pH range of 5-8, and 2) used within 24 hours of preparation.

High spray volumes, coupled with high surfactant rates, are not required to achieve sufficient coverage with **H-618** spray adjuvant. In fact, **H-618** spray adjuvant has the potential to provide adequate coverage in many low volume spray applications at rates between 0.025% and 0.1%

#### **SAFETY**

Before handling, read the Material Safety Data Sheet and container label for safe use, physical and health hazard information.

#### **STORAGE AND SHELF LIFE**

After sealing packaging products stored in a cool, dry place, **H-618** has a shelf life of 36 months from date of manufacture.

### **PACKAGING**

**H-618** is available in 200L drum and 1000L IBC or others.

### **LEGAL DISCLAIMER**

Hito chemical believes that the information in this technical data sheet is an accurate description of the typical uses of the product. Hito Chemical , however, disclaims any liability for incidental or consequential damages, which may result from the use of the product that are beyond its control. Therefore, it is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficacy and safety. Nothing contained herein is to be considered as permission or a recommendation to infringe any patent or any other intellectual property right.



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