Product Information

BREAK-THRU® S 301

PRODUCT DESCRIPTION

BREAK-THRU® S 301 is a biodegradable polyether trisiloxane. In aqueous solutions, it provides super spreading and dramatically reduces surface tension. Therefore, the biological performance of crop protection products can be significantly enhanced by superior wetting of hydrophobic surfaces, particularly leaves and other parts of plants, as well as better uptake through penetration of cuticular waxes and stomatal flooding.

Typical Properties

Property	Unit	Value
Appearance		liquid
Color		colorless to pale straw
Density at 20°C	g/cm^3	1.02
Flash Point	°C	≤100
Surface Tension at 22°C (0.1% in w/w in water)	mN/m	22
Viscosity at 25°C	mPa·s	50-100

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

BREAK-THRU® S 301 can be used in tank-mix applications as well in formulations. Please inquire for details. For tank mixtures pesticide manufacturers may suggest a rate of a non-ionic surfactant to be used with their product. Follow the corresponding label recommendation.

However, if the pesticide label does not have a specific recommendation for adjuvant use, but does not prohibit its application, BREAK-THRU® S 301 should be applied at rates listed below. Careful observation of spray performance in a trial application with the tank mixture to be sprayed is advised to determine proper and efficient rates.

BENEFITS & ADVANTAGES

- Biodegradable, super-spreader trisiloxane
- Offers superior wetting and a dramatic reduction of surface tension in aqueous solutions
- Has no dangerous good classifications

HANDLING & PROCESSING

Arable Crops

Pesticides with systemic action: 150-200 ml/ha to improve wetting, spreading and uptake.

Pesticides with contact action: 100-125 ml/ha to improve wetting and spreading.

Horticultural Crops and Orchards

150-250 ml/ha depending on the growth stage.

These dosages account for various water volumes. To be in line with regulatory compliances, please observe the local label for BREAK-THRU® S 301.

Microbial Compatibility

BREAK-THRU® S 301 is biocompatible with microbial control agents like Trichoderma spp., Beauveria bassiana, Bacillus spp..

BREAK-THRU® S 301 is a carrier liquid for microbial formulations, providing excellent shelf life results.

BREAK-THRU® S 301 absorbs and coordinates water and by that it controls the water activity.

Water activity is one of the key parameters for microbial shelf life stability.

PACKAGING

4 x 200 kg drums (full pallet)

1 000 kg plastic containers

SHELF LIFE

BREAK-THRU® S 301 is stable in sealed containers for 4 years. BREAK-THRU® S 301 is not sensitive to freezing.

HAZARDOUS SUBSTANCE

Information concerning

- Classification and labelling according to regulations for transport and for dangerous substances
- Protective measures for storage and handling
- Measures in case of accidents and fire
- Toxicity and ecological effects

is given in our material safety data sheets.

REGISTRATION LISTING SUMMARY

Per 40 CFR 180.910, BREAK-THRU® S 301 is exempt from the requirement of a tolerance when used in accordance with good agricultural practice as an inert ingredient in pesticide formulations applied to growing crops or to raw agricultural commodities after harvest.

BREAK-THRU® S 301 is OMRI (Organic Materials Review Institute) listed.

The relevant components of BREAK-THRU® S 301 are listed/registered or exempt in the following chemical inventories:

Registration Listings	
Registry	**Status**
Australia (AIIC)	Yes
China (IECSC)	Yes
EU (EINECS/ELINCS)	Yes
Japan (ENCS)	Yes
South Korea (KECL)	Yes
Philippines (PICCS)	Yes
USA (TSCA)	Yes

Evonik Operations GmbH

Interface & Polyurethane Additives
Goldschmidtstraße 100
45127 Essen
Germany